TRANSACTIONS

OF

THE ZOOLOGICAL SOCIETY

OF LONDON.

VOLUME XIX.

LONDON:
PRINTED FOR THE SOCIETY:
SOLD AT THEIR HOUSE IN HANOVER-SQUARE:
AND BY MESSRS. LONGMANS, GREEN, AND CO., PATERNOSTER-ROW.
1909-10.
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(Plates I.—III. and Text-figures 1–12.)

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October 1909.

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TRANSACTIONS OF THE ZOOLOGICAL SOCIETY OF LONDON.

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Continued on page 3 of Wrapper.
1. PREFACE.

Received and read November 17, 1908.

Ever since its discovery by Sir Henry Stanley in 1888, the great range of mountains in Equatorial Africa known as Ruwenzori, or the "Mountains of the Moon," has attracted the attention of naturalists in all parts of the world, especially in Europe and America. The isolated position and the great altitude attained by the forest-clad, snow-capped peaks, rising to nearly 17,000 feet, made it certain that a rich and peculiar Fauna and Flora must await the investigations of the explorer.

With a view to benefiting the British Museum (Natural History), I therefore determined, if possible, to be first in the field; but the task of raising sufficient funds for the purpose of sending out a large and properly equipped expedition took
more time to achieve than I had at first contemplated. At last, however, this difficulty was overcome through the generosity of—


who became Subscribers to the Ruwenzori Expedition Fund on the understanding that the first set of specimens collected should be presented to the British Museum. Mr. C. E. Fagan, Secretary of the British Museum (Natural History), kindly consented to act as Treasurer to the fund.

Meanwhile, the services of four first-rate field-naturalists and collectors, Mr. R. B. Woosnam (leader of the Expedition), Late of the Worcestershire Regiment, Mr. R. E. Dent, Hon. Gerald Legge, and Mr. Douglas Carruthers,

were secured, and to these was finally added Mr. A. F. R. Wollaston, who undertook to look after the health of the various members of the Expedition and to form botanical and entomological collections.

It would be difficult to find any five individuals who could have carried out the work so successfully and thoroughly as these gentlemen have done, and to anyone who studies the following pages this will be abundantly evident. To Mr. R. B. Woosnam, the leader of the Expedition, special praise is due for the admirable manner in which he conducted the exploration of Ruwenzori and brought it to a most successful termination in the face of many serious difficulties. The Zoological Society of London, in recognition of the signal services he has rendered to science on this and other similar occasions, has awarded him a silver medal, and certainly no reward was ever more justly merited. The botanical results have already been published in a paper by Dr. A. B. Rendle and others, which appeared in the 'Journal of the Linnean Society: Botany,' vol. xxxviii. pp. 228–279 (January 1908).

The organization and equipment of this large Expedition took many months to
arrange, and before it had reached its destination and commenced work a number of
the birds peculiar to the region had already been procured and sent to the British
Museum by Mr. F. J. Jackson, C.B., whose nephew, Mr. Geoffrey Archer, paid a short
visit to the north-eastern slopes of Ruwenzori in February 1902.

The Ruwenzori range has now been investigated as completely as is at present possible;
unfortunately, the western heights, which lie within the Congo territory, had to be
abandoned before they had been properly explored, owing to the hostility of the natives.

The collections formed are among the finest that have ever been sent to the British
Museum, both as regards the number of species and the perfect condition in which
they have reached this country; and, so far as the birds are concerned, they no doubt
contain the great majority of the species which occur on Ruwenzori.

Some slight idea of what has been done may be gathered from the following list of
the specimens which have been received:

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<tr>
<td>Reptilia and Amphibia</td>
<td>135</td>
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<td>31</td>
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<tr>
<td>Coleoptera</td>
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</tr>
<tr>
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<td>25</td>
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<td>47</td>
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<tr>
<td>Lepidoptera</td>
<td>1372</td>
</tr>
<tr>
<td>Hemiptera</td>
<td>130</td>
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<tr>
<td>Homoptera</td>
<td>23</td>
</tr>
<tr>
<td>Diptera</td>
<td>55</td>
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<td>38</td>
</tr>
<tr>
<td>Vermes</td>
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A large number of the species were new to science.
Lastly, a very fine collection of dried plants (including many new species) was made.
Numerous growing plants and seeds were also sent home, and are now being cultivated at
the Royal Botanic Gardens at Edinburgh, under the care of Professor I. Bayley Balfour.

The close affinity between the Highland Fauna of Ruwenzori and that of the
Cameroon is a very striking feature of the collection as a whole; and now that the
various groups have been thoroughly worked out, it is evident that a very valuable
addition has been made to our knowledge of the Fauna and Flora of Tropical Africa.

It is in accordance with the traditions of the Zoological Society that the heavy cost
of publishing the zoological results of the Expedition should have been assumed by
that body.

W. R. OGLIVIE-GRANT.
RUWENZORI EXPEDITION REPORTS.

2. ITINERARY.

October 1905 to November 1906.

By R. B. Woosnam.

Received and read November 17, 1908.

[Text-figures 1 & 2.]

Leaving England on October the 8th, 1905, by one of the German East African Company’s boats, the Expedition landed at Mombasa on November the 6th. All the supplies and most of the camp-equipment, collecting-boxes, and other impedimenta had been dispatched by a previous boat to the care of Messrs. Smith, Mackenzie, and Co., who had sent them off on their way up country. The Expedition was thus able to proceed without delay by the first train to Kisumu on Victoria Nyanza and thence, by one of the excellent steamers which have lately been built upon the lake, to Entebbe, the whole journey from Mombasa taking three days, whereas, before the construction of the Uganda Railway, it was a long and difficult march of three months. During the few days spent at Mombasa much kind advice and assistance were obtained from Mr. F. J. Jackson, C.B., C.M.G., at that time Acting Commissioner of the East Africa Protectorate, and his wide experience of Uganda enabled him to supply the members of the Expedition with valuable information upon many points.

At Entebbe a serious delay of twelve days was caused by the non-arrival of the truck-load of supplies and camp-equipment, which had been sent off from Mombasa a fortnight earlier, and which we were assured would be waiting for us. Telegrams having been dispatched to all possible sources of information, news was at last obtained that the missing truck had been delayed at Nairobi and that it would be forwarded at the first opportunity. The fortnight’s stay at Entebbe, though an annoying loss of time, passed pleasantly enough for the members of the Expedition. A little collecting was done and a memorable day’s expedition was made on the lake in canoes, resulting in the death of several crocodiles and a hippopotamus.

The long war-canoes of Victoria Nyanza, holding 40 paddlers, are quite worthy of note. They are made of long thin planks, each of which is hewn from a single tree-trunk. As no saw or similar tool is used only one plank can be made from each tree, and the whole trunk has to be cut away in small chips on either side till only the plank remains. The planks are sewn together with grass or strips of fibre, one forming the bottom and two or more the sides of a light strong craft, which is capable
Text-fig. 1.

Map of Ruwenzori and the Lake Region.

(Reproduced from part of Major R. G. Bright's Survey, by the kind permission of the Colonial Office and that of the Royal Geographical Society.)
of being driven through the water at a great pace by a well-trained crew. Canoes of a similar pattern are often used on Lake Edward, but not on the Congo River, where they are all of the "dug-out" type.

In the neighbourhood of Entebbe, the absence of ducks on Victoria Nyanza was remarkable, and all the herons, egrets, cormorants, and other water-birds were always to be seen perched upon trees: possibly the presence of numbers of crocodiles may account for this.

Professor Minchin, F.Z.S., kindly allowed the members of the expedition to visit the laboratory of the Sleeping Sickness Commission, where investigations of great interest and of vast importance to Uganda were being carried out.

Before leaving Entebbe, the discovery was made, at the eleventh hour, that Ruwenzori and all the country about the foot of the mountains was a "game-reserve," in which no shooting of any kind was permitted, but, after application had been made to the Commissioner of the Uganda Protectorate, special permission to collect was granted to the members of the Expedition.

In arranging the caravan for the march from Entebbe to Ruwenzori, much valuable help was given by the Collector, Mr. J. Martin, and the Assistant Collector, Major Trefry.

When, at last, all preparations were complete, a start was made from Entebbe on November the 23rd, and Fort Portal, the Government post near the western border of the Uganda Protectorate, was reached on December the 13th. From there a march of four days brought us to the small village of Bihunga, where the first base-camp was formed at an altitude of about 6500 feet, in the valley of the Mubuku River, along which lies the only known route to the snows on the eastern side of Ruwenzori.

The march from Entebbe is extremely uninteresting and monotonous. The country is undulating, almost hilly in places, covered with dense elephant-grass from 12 to 14 feet high and broken stretches of shorter spear-grass intermixed with mimosa bushes. Here and there great masses of granite-like rock protrude on the crests of the ridges where rain has washed away the soil. Guinea-fowls were sometimes to be seen on these rocky ridges, but usually succeeded in baffling their pursuers by escaping into the thick grass. Francolins were often heard calling in the evenings, but without a dog there was little chance of flushing them. The bottoms of the valleys were swampy and more thickly wooded with dark-leaved trees, or sometimes, in the larger valleys, there was a broad expanse of waving papyrus-swamp, but the road was generally shut in on both sides by the tall elephant-grass, which effectually excludes all view of the surrounding country. The march from Entebbe took longer than was anticipated, owing to the caravan being rather long and hampered by several awkward loads: with a small caravan the distance of about 170 miles to Fort Portal can be traversed in ten days. Porters are the only, but are not an ideal, means of transport; if the number is over 30 or 40 they are a continual source of trouble to feed, and are becoming more expensive and more difficult to obtain every year.
Zoological Results of the Ruwenzori Expedition.

Fort Portal is the seat of Government of the kingdom of Toro, and it promises to develop into a town of some importance in the future. The district is very healthy—cows, sheep, and goats thrive well; beans, sweet-potatoes, bananas, and maize are largely grown; and cotton and coffee are being tried with some success. In the event of the gold-mines at Kilo, just over the Congo border, proving rich, a good deal of the traffic will go through Fort Portal.

The Church Missionary Society has a large and important station at Fort Portal, under the care of Mr. H. E. Maddox, who has a thorough knowledge of the natives and their language: to him the Expedition was greatly indebted for help and advice and also for information derived from his experience of previous journeys to Ruwenzori. There is a well-organized hospital for natives, where some excellent work is being done, and a large brick church is now in process of construction. There is also a large station of French Roman Catholic Fathers close at hand.

Between the two Mission stations, upon the summit of the highest ridge of Fort Portal, stands the "Palace" of Kasagama, the King of Toro.

Fort Portal is the headquarters of the Sub-Commissioner of the Western Province of the Uganda Protectorate, and also of the Collector of the Toro district, Mr. J. O. Haldane, to whom the expedition was deeply indebted for continual help and kind hospitality.

Camps.

The first camp on Ruwenzori was formed in the Mubuku Valley on the east side of the range, at an altitude of 6500 feet, and was occupied for four months. From this base-camp short expeditions were made up to the higher regions and snows, but the impenetrable nature of the bamboo- and tree-heath-zones, as well as much of the forest, coupled with the absence of native paths above 7000 feet, prohibited much exploration without considerable expense in cutting roads.

From the Mubuku Valley a move was made to the southern end of the range, where another base-camp, formed at Mokia, at an altitude of about 3400 feet, was occupied for two months.

The country at the south end of Ruwenzori forms a great contrast to the dense elephant-grass and damp tropical valleys of the central part of the range. Here there is a distinct lack of moisture; short grass, euphorbia and acacia trees form a welcome change. On the plain, at the foot of the hills, there are several small crater-lakes of salt water, and deep dry ravines with precipitous sides extend from the mountains for some distance on to the plain. This dry country extends round the south of Ruwenzori and down the Semliki Valley as far as the Lume River. From that point to Fort Beni the road passes over open undulating plains covered with spear-grass and interspersed with many tall Borassus palms. From Fort Beni nearly to the north end of Ruwenzori the Semliki Valley is overspread by the Eturi Forest,
which extends on to the lower slopes of the mountains. This part of the Semliki Valley and Ruwenzori is almost unexplored; but at the time of our visit the tribes dwelling there had rebelled against Congolese authority and we were unable to enter it. There is no doubt that cannibalism is still practised in this district, and also by the Baambas on the north-western slopes of Ruwenzori. Between Lake Edward and Fort Beni the Semliki is a shallow sluggish river, but below the Fort, shortly after the river enters the forest, there is a dangerous rapid and probably there are more lower down. It is a noteworthy fact that no crocodiles were seen nor were any traces of them found either in Lake Edward or in the upper part of the Semliki above the rapids, and the natives assert that they do not exist there. In Lake Albert and the lower part of the Semliki crocodiles abound and are always to be seen, as also in Lake Tanganyika and the Congo rivers. It seems very curious that there should be no crocodiles in Lake Edward: the rapids on the Upper Semliki certainly do not explain their absence.

From the camp at Mokia another move was made round into Congolese territory, with the intention of making a third camp on the west side of the range, in a position corresponding to the first camp in the Mubuku Valley. A suitable camping-place was found in the Butagu Valley at an altitude of a little over 7000 feet; but, owing to the rebellious state of the tribes at the foot of the mountains, it was only occupied for three days. Matters then became so unpleasant that collecting was out of the question and the Expedition was compelled to beat a hasty retreat to Fort Beni, the Congolese Post on the Semliki River. This was a great disappointment, as no systematic collecting had been done in the district which lies on the west side of Ruwenzori between the Butagu Valley and the north end of the range. The Butagu is the largest valley on the west side and leads directly to the snows, but the river has not so great a volume of water as the Mubuku on the east side. From Fort Beni a hurried march was made through the forest to Irumu, on the Eturi River, by an entirely unused road on the west of the Semliki Valley, where no inhabited villages were seen, and where no food for carriers was obtainable for nearly 100 miles. This is probably one of the most uninhabited parts of the whole Eturi Forest, and the number of elephants and buffaloes which frequent it is extraordinary. About 6 or 8 miles from Irumu the forest terminates abruptly and its place is taken by an open rolling country of tall grass with patches of forest in the hollows. From Irumu a well-used road was followed back to Fort Portal. Shortly after leaving Irumu, the road passes over low hills which form the watershed of the Nile and Congo rivers and extend along the west bank of the Semliki to the mountains on the west of Lake Edward. Camps were formed for a short time in the Luimi (Wimi) Valley and at the north end of the range. Subsequently the Expedition set out on the return journey to England, travelling through the Congo Forest to Boma on the west coast. At the present day this is an easy journey to make, provided the sanction and assistance of...
the authorities of the Independent State of the Congo have been obtained. From Fort Portal we returned to Irumu, by the same road previously traversed, and thence a march of eleven days along a well-kept path through the forest brought us to Mawambi, the next Congolese post. Here it was necessary to engage fresh carriers for the march of eight days to Ayakubi on the Aruwimi River. On the Aruwimi dug-out native canoes are used for all transport, and with these we continued our journey down to Basoko, where the Aruwimi joins the Congo. There are many dangerous rapids on the Aruwimi and at each it was necessary to unload the canoes, which were then taken down the rapids by expert canoe-men, while the baggage was carried round to the smooth water below by the women. The latter do all the work of carriers in the Aruwimi district, the men working only in the canoes.

At Basoko we said good-bye to the canoes and canoe-men, but not without regret, and embarked in the steam-boats which now run regularly up and down the Congo. From Basoko ten days brought us to Leopoldville at the head of the rapids, and the remaining journey of two days to the coast was made by railway.

During the whole of our journey through Congolese territory we received the greatest kindness and hospitality from the officials of the Independent State, and every possible assistance was given and consideration shown to the members of the Expedition.

GENERAL FEATURES OF RUWENZORI.

On the journey from Entebbe, as Toro was approached, a sharp look-out was kept for the first glimpse of the "Mountains of the Moon," but it was not until we were within two days' march of Fort Portal that we were rewarded with a sight of them. At dawn on the morning of December the 13th, from a camp called Butiti, about 30 miles from the foot of the mountains, we obtained our first and only view of the entire range absolutely clear of clouds. A great mass of dark blue mountains lay spread out before us in the form of a long ridge culminating near the middle in a group of high snow-clad peaks. Just to the south of the snow a few sharp jagged points of black rock rose against the sky-line, while towards the north the ridge ran down more gradually in a long slope nearly to Lake Albert. Dawn was tinged the snow-peaks with pink, but the gloom of night still hung around the lower slopes and valleys. It was a magnificent view, yet there was something foreboding and repellent in this rugged mass of dark mountains which usually wrapped themselves so stubbornly in their cloak of mist.

Ruwenzori is a mountain-range lying just north of the Equator, and forms a long ridge between Lakes Albert and Edward. It lies between latitude 0° and 1° N. and is cut by longitude 30° E. The whole range is about 70 miles long and 30 miles across the widest part. It does not run due north and south, but rather N.N.East and S.S.West. The lofitest part of the ridge is formed by a cluster of peaks, the highest of which attains an altitude of 16,794 feet. The extent of snow is small in proportion
to the length of the range, and an area about 10 miles long by 8 miles broad contains all the permanent snow.

The slope of the west side of the ridge is very much steeper than that of the east, and the distance from the foot of the mountains to the watershed is considerably less. Mr. G. F. Scott Elliot estimated the western slope at an angle of 22° and the eastern slope at 4°.

At the south end two long narrow spurs project from the main mass into the Lake Edward plain, reaching almost to the shore of the lake. At the north end the lower slopes gradually subside into the high country of over 5000 feet which surrounds Fort Portal, and continues along the east side of Lake Albert; but the main ridge, which is quite narrow at this point, extends into the Semiliki Valley, nearly to Lake Albert.

The permanent snow-line on the east side is 14,500 feet; on the west side it is probably lower, owing to the fact that the latter is more protected from the sun's rays than the east. Unfortunately the snow-line on the west side was not actually attained, although two members of the party climbed to an altitude of 11,000 feet, and would undoubtedly have reached the snow had they not been suddenly compelled to return on account of a native disturbance below.

Above 6000 feet the temperature on Ruwenzori never rises very high nor does it fall very low at the summit. At an elevation of 6500 feet in the Mubuku Valley the maximum and minimum Fahrenheit observed during four months averaged max. 74°-04, min. 58°-16; at 12,500 feet the maximum and minimum observed were max. 51°-5, min. 36°; once in the early morning at 10,000 feet the vegetation was white with frost. Above the snow-line the temperatures observed by H.R.H. the Duke of the Abruzzi were max. 43°, min. 26°.

The rainfall and moisture on the mountain above 5000 feet are excessive, and during 118 days spent in the Mubuku Valley rain fell on 78 days. The dry and wet seasons on the mountains and in the Toro district are as follows:—

The dry season continues from the last week of December to the middle of February; this does not mean that there is no rain then, but that there is less than at other times. From the middle of February till May and sometimes till June there is rain, but it is not excessive. June, July, and August are generally fine and fairly dry with only a little rain, but they are seldom so dry as January, and sometimes during June there is a very heavy rainfall. From September to the middle of December the rainfall is very great, November and December being the wettest months of all.

There is a very marked contrast between the climate of the south and the central portion of the range. At the south end the rainfall is much less, and the vegetation, as already stated, consists of short grass and acacia trees, the whole district having an arid appearance, much like parts of South Africa. The same conditions occur at the north end, but not to such a marked degree as at the south.
THE CLOUD.

One of the most characteristic and at the same time most objectionable features of Ruwenzori is the ever-present cloud, which forms every morning and veils the upper regions in gloom and moisture. It disappears almost as regularly every evening at sunset, the mountains being nearly always clear of cloud during the night. Looking down from the heights in the early morning, the clouds may be seen forming into a bank which gradually rises and drifts up the mountain-side, all the while receiving reinforcements from the hot damp atmosphere below. By about 10 A.M. all signs of snow-capped mountains are blotted out and from below travellers can see nothing but a great bank of clouds apparently resting upon a high ridge. This is the real reason why Ruwenzori remained undiscovered for so long, although several travellers had approached within sight of it before its actual discovery by Sir Henry Stanley in 1888. When first the cloud is seen drifting silently up on to the mountain it is an interesting and curious phenomenon, and the stranger comes running out of his tent lest it should pass before he has seen it; but after a time, when familiarity has bred contempt, one begins to dread and hate this silent extinguisher of sunlight and joy that casts a gloom and stillness over the land which a few moments before was filled with life and the songs of birds.

Fortunately it is seldom that the cloud forms below 8500 or 9000 feet, but when it does it brings a chilling and depressing sensation that is difficult to withstand, and in a house or tent it is sometimes necessary to light candles to enable one to read or work.

GLACIERS.

The glaciers and snow-fields of Ruwenzori are only insignificant remains of what they were during an earlier epoch, when the valleys leading from the higher parts of the range were probably all occupied by larger or smaller glaciers.

Undoubtedly the Mubuku Glacier, which now terminates at 13,690 feet, extended much farther down the valley in former times, probably to below the Bihunga village at 6500 feet. Unmistakable strie and many great "perched blocks" may be seen scattered far down the valley.

The ascent of the Mubuku Valley is made in a curious succession of broad flat steps. The first at 10,000 feet must be more than a mile long and three or four hundred yards broad; then there is a steep climb up an almost perpendicular cliff to an altitude of nearly 11,000 feet, then another extent of flat valley, followed by a climb, and again a broad flat step at 12,000 feet, and another below the glacier at about 12,800 feet. The bottom of the valley and especially these flat steps are so deeply buried in peaty bog, the rotten vegetation of ages, that the old surface is completely hidden and few traces can now be seen of terminal moraines.
VALLEYS VISITED.

The valleys visited by the expedition were the Mubuku and Luimi (Wimi) on the east side; a smaller valley, the Muhokya (Mokia), near the south end; and the Butagu on the west side. From the last-named we were obliged to beat a hasty retreat immediately after entering it. The Mubuku, Nyamwamba, Butagu, Russirubi, and Luimi are the largest and most important valleys of the range, although there are of course numerous smaller ones. Of these five large valleys, only the first four lead directly to the snow.

The streams flowing from the higher parts of Ruwenzori are all cold and clear, very slightly tinged with brown from the bogs in the higher valleys, and carry many little specks of glittering mica. On the plains at the foot of the mountains, where they cease to be foaming torrents, they resemble the most perfect trout-streams an angler could desire; and if trout were turned into them they might prove to be so in reality, for they contain an abundance of food and a plentiful supply of cool water.

The smaller streams are not so clear and carry large quantities of fine sand and mica in suspension. In the Luimi Valley there are hot springs rising actually in the bed of the river at an altitude of 6000 feet. Where they bubble up the water is almost boiling and there is a strong smell of sulphur, the rocks being thickly coated with a bright brick-red deposit of iron. There are also hot springs at the north end of the range, and the natives have great faith in them for curing all manner of diseases and wounds.

In the Mubuku Valley there is a beautiful waterfall at 10,000 feet, and in the Luimi Valley there is also a small fall at about 7000 feet, but it is insignificant in comparison with the Mubuku fall. In the Mubuku Valley between two of the snow-covered ridges, at about 14,200 feet, there is a pass, named the Freshfield Pass by H.R.H. the Duke of the Abruzzi. This would enable natives and animals to move from one side of the mountains to the other, but being far above the forest, almost on the limit of vegetation, it is never used. The natives prefer one at an altitude of about 10,000 feet, which crosses the ridge a little to the north of the Luimi Valley. Several small streams from the north end unite at the foot of the mountains and form the Mpanga River, which flows southwards and finds its way into Lake George (Ruisamba).

DIVISIONS OF RUWENZORI.

For the purpose of describing the distribution and range of the mammals and birds of Ruwenzori, the mountain may be divided into the following zones of vegetation running concentrically round the ridge in belts, which can be most clearly shown in a diagram (text-fig. 2, p. 15.). The boundaries of these zones on the west side are not so well defined as on the east and come lower down. This may be accounted for partly by the more humid climate on the west side and partly by the cloud-bank which intervenes before the sun has reached the western slopes.
Table of Zones.

<table>
<thead>
<tr>
<th>Zone (feet)</th>
<th>Vegetation / Characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td>16,816</td>
<td>Snow and bare rock.</td>
</tr>
<tr>
<td>16,000</td>
<td>16,794–14,500.</td>
</tr>
<tr>
<td>15,000</td>
<td></td>
</tr>
<tr>
<td>14,500</td>
<td></td>
</tr>
<tr>
<td>14,000</td>
<td></td>
</tr>
<tr>
<td>13,500</td>
<td>Senecios and Lobelias.</td>
</tr>
<tr>
<td>13,000</td>
<td>14,500–12,500.</td>
</tr>
<tr>
<td>12,500</td>
<td></td>
</tr>
<tr>
<td>12,000</td>
<td></td>
</tr>
<tr>
<td>11,500</td>
<td>Tree-Heaths and Moss.</td>
</tr>
<tr>
<td>11,000</td>
<td>12,500–10,000.</td>
</tr>
<tr>
<td>10,500</td>
<td></td>
</tr>
<tr>
<td>10,000</td>
<td></td>
</tr>
<tr>
<td>9,500</td>
<td>Bamboos.</td>
</tr>
<tr>
<td>9,000</td>
<td>10,000–8,500.</td>
</tr>
<tr>
<td>8,500</td>
<td></td>
</tr>
<tr>
<td>8,000</td>
<td></td>
</tr>
<tr>
<td>7,500</td>
<td>Forest.</td>
</tr>
<tr>
<td>7,000</td>
<td>8,500–6,500.</td>
</tr>
<tr>
<td>6,500</td>
<td></td>
</tr>
<tr>
<td>6,000</td>
<td></td>
</tr>
<tr>
<td>5,500</td>
<td>Grass.</td>
</tr>
<tr>
<td>5,000</td>
<td></td>
</tr>
<tr>
<td>4,000</td>
<td></td>
</tr>
<tr>
<td>3,000</td>
<td></td>
</tr>
</tbody>
</table>

Almost always enveloped in cloud during the daytime.

No resident animal-life, with the exception of worms.

Little animal-life.

Abundant animal-life.

These divisions must not be taken as hard-and-fast lines of difference, for the edges of the zones necessarily merge gradually one into another. Examples of the characteristic vegetation of one zone may often be seen in the middle of the next, and there is always a difference between the altitudes of the zones as observed in valleys or on exposed ridges. Again, it must not be thought that the particular plants named constitute the sole vegetation of the zones; they are merely taken as the most conspicuous and characteristic species of certain altitudes. It was most unfortunate and disappointing that the Expedition was prevented from making systematic collections on the west side; there is so little material from that locality that a comparison of the two sides is at present impossible. Although only a few of the birds were obtained on the west side, we saw and heard enough to enable us to say that all or
nearly all the species which inhabit the east side above 6500 ft. are to be found also on the west.

Many mammals known from the east side were also identified on the west, and it will probably be found, when sufficient material has been obtained, that the fauna above 6500 ft. is almost identical on both sides of the range. This is true also of the flora in general, but, from the hurried observations we were able to make, we were of the opinion that there are several plants on the west which are not found on the east side.

Beginning at the base and working up the slopes of the range, we find the following zones:

A. The Grass-Zone (from 3000 to 6500 feet).

Except in its north-eastern quarter, where the slopes merge into the highlands of Toro at an altitude of about 5000 feet, Ruwenzori rises abruptly from the plains of Lakes George and Edward and the Semiliki Valley, that is, from an altitude of about 3000 ft. These plains, with the exception of that part of the Semiliki Valley where an eastward extension of the Eturi Forest becomes continuous with the Ruwenzori Forest, are covered with short grass and scattered trees of euphorbia and acacia, the typical “park-like” country of Central and Southern Africa. Short grass and bushes characterize the slopes to a height of about 5000 feet, where the zone of
elephant-grass begins. Small patches of forest, especially along the banks of the streams, are found in this zone, and a good deal of native-cultivation is seen. The elephant-grass extends to a height of 6500 feet, where the forest begins.

B. The Forest-Zone (from 6500 to 8500 feet).

On a clear day when the cloud rests upon the higher part of the ridge, leaving that part below 10,000 ft. exposed, an instructive view can be obtained from Fort Portal. The forest-belt appears as a well-defined dark band running the whole length of the ridge without a break, but diminishing in breadth towards the north end until, at the point where it disappears over the ridge, it is only a narrow strip about 100 yards wide and a good deal mixed with bamboo.

As one approaches the forest from below, it appears impenetrable, for the bushes and lower part of the trees along the edge are overgrown with such a mass of tangled creepers and rank undergrowth that further progress seems impossible without cutting a way through or following one of the few native paths. Fortunately this only exists along the lower edge, especially round the native-clearings. Once inside the forest it is possible to walk in any direction, and only here and there is one stopped by an impenetrable tangle of undergrowth. Throughout a considerable part of the forest the surface of the ground is covered with ferns, through which one may walk with comparative ease, and in some of the valleys patches of magnificent tree-ferns flourish. In the lower parts of the forest there are many great rope-like creepers hanging from the trees—in fact, the lower margin of the forest-zone, especially in the valleys, is almost as tropical in appearance as the forests of Uganda and the Congo. Above 7000 ft. many of the tropical forms vanish, and species of mammals and birds known only from Ruwenzori begin to appear. At about 6500 ft. one first meets with lobelias (*Lobelia giberroa*), which form such a conspicuous feature of the higher altitudes. The majority of the trees are less than 2 ft. in diameter, except in the lower valleys, where some fine trees are seen, notably *Symphonia globulifera* and *Pseudocedrela utilis*, the latter attaining a great size and being a valuable timber-tree. The single species of conifer, *Podocarpus milanjiana*, which is found on Ruwenzori, appears first at about 7500 ft., but is most plentiful where the forest joins the bamboo-zone.

In many places the lower margin of the forest has been cut back several hundred feet by the natives in clearing the ground for cultivation. These old spaces when left disused become thickly overgrown with rough grass, shrubs, scented herbs, and thistles, and are favourite places for birds, especially for all the smaller Finches.

The lower margin of the forest-belt at 7000 ft. marks, as a rule, the limit of human habitations, but in the Luimi (Wimi) Valley there is a village in a large clearing in the middle of the forest at 8000 ft. This, however, was the only instance observed of natives living much above the lower forest-line, though most of the large open spaces
covered with fern (bracken), which are to be seen in the lower parts of the forest, are probably old sites of cultivation.

The following is a list of the mammals and birds known to frequent the forest-zone, but many of them are also to be found outside it:

*Forest-Zone (6500 to 8500 feet).*

<table>
<thead>
<tr>
<th>Mammals</th>
<th>Birds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthropithecus troglodytes.</td>
<td>Serinus graueri.</td>
</tr>
<tr>
<td>Colobus ruwenzorii.</td>
<td>Parus fasciiventris.</td>
</tr>
<tr>
<td>Cercopithecus leucampyx stuhlmanni.</td>
<td>Dryoscopus holomelas.</td>
</tr>
<tr>
<td>Rousettus angolensis.</td>
<td>Bradypterus barakæ.</td>
</tr>
<tr>
<td>Epomophorus, sp. inc.</td>
<td>” cinnamomeus.</td>
</tr>
<tr>
<td>Pipistrellus nanus.</td>
<td>Apalis personata.</td>
</tr>
<tr>
<td>Crocidura nyanze.</td>
<td>” ruwenzorii.</td>
</tr>
<tr>
<td>” niobe.</td>
<td>Geocichla piaggæ.</td>
</tr>
<tr>
<td>Sylvisorex lunaris.</td>
<td>Turdus abyssinicus.</td>
</tr>
<tr>
<td>Chrysocloris stuhlmanni.</td>
<td>Alethe poliothorax.</td>
</tr>
<tr>
<td>Felis pardus ruwenzorii.</td>
<td>” poliophrys.</td>
</tr>
<tr>
<td>Genetta stuhlmanni.</td>
<td>Turdinus atriceps.</td>
</tr>
<tr>
<td>” bettoni.</td>
<td>Xenocichla kikuyuensis.</td>
</tr>
<tr>
<td>Mungos sanguineus proteus.</td>
<td>Andropadus latirostris.</td>
</tr>
<tr>
<td>Sciurus ruwenzorii.</td>
<td>Graucalus caesius.</td>
</tr>
<tr>
<td>Funisciurus bochmi emini.</td>
<td>Tarsiger ruwenzorii.</td>
</tr>
<tr>
<td>” carruthersi.</td>
<td>Batis diops.</td>
</tr>
<tr>
<td></td>
<td>Trochoecerus albomotatus.</td>
</tr>
<tr>
<td></td>
<td>Cryptolopha leta.</td>
</tr>
<tr>
<td></td>
<td>Mesopicus ruwenzorii.</td>
</tr>
<tr>
<td></td>
<td>Turacu emini.</td>
</tr>
<tr>
<td></td>
<td>Haploelia jacksoni.</td>
</tr>
<tr>
<td></td>
<td>Francolinus, sp. inc.</td>
</tr>
</tbody>
</table>

Vol. XIX.—Part I. No. 3.—October, 1909.
C. The Bamboo-Zone (8500 to 10,000 feet).

The bamboo-zone, which begins at the upper limit of the forest-zone, may be said to extend from 8500 to 10,000 ft. on the east side, and from 7000 to 8500 or 9000 ft. on the west side of the range.

A bamboo-jungle requires little description. From a distance it appears light-coloured in comparison with the forest and uniformly smooth, and it might be easily mistaken for undulating ridges covered with short grass, while in reality the bamboos are 30 ft. high and 3 to 4 inches in diameter. Where the bamboo-jungle is unmixed with forest it is impenetrable without cutting a path, for the dead bamboos lying across the growing stems make a most effectual barricade. In the densest parts practically no vegetation grows beneath the bamboos, except mosses and lichens, and the ground is thickly carpeted with the long thin yellow or whitish leaves. Here and there throughout the bamboo-zone long strips and clumps of tall conifers (Podocarpus milanjiana) may be seen on the tops of the ridges, especially along the lower parts of the zone. In these dense jungles there is little or no life to be seen, the birds preferring the more open parts, and the mammals, with the exception of monkeys and chimpanzees, finding no food to attract them. These latter frequent the bamboo-zone in search of the young shoots, and traces of chimpanzees were found as high as 10,000 ft.

In the valleys, along the banks of the streams, thin patches of forest may be seen here and there as high as 10,000 ft. It is in places of this kind that several species of birds, which really belong to the forest below, are occasionally found and are thus sometimes to be met with in the bamboo-zone. On the south side of the Mubuku Valley at an altitude of 9900 ft., in the thickest part of the bamboo, there is a small lake, but the only birds seen upon it were some Grebes and Green Sandpipers, the latter (Totanus ochropus) were also seen on the Mubuku River as high as 11,000 ft. A few Black Ducks (Anas sparsa) were seen in the Mubuku Valley up to 12,000 ft., and were observed to be breeding in a broad swampy part of the river at 10,000 ft.

So far as we could ascertain, no mammals are confined to this zone, and the only bird which is more or less peculiar to it is Johnston's Touraco (Gallirex johnstoni), the chief habitat of which is among the lower bamboo and Podocarpus-trees.

The following is a list of the mammals and birds which are known to inhabit the Bamboo-zone:—

<table>
<thead>
<tr>
<th>Bamboo-Zone (8500 to 10,000 feet).</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MAMMALS.</strong></td>
</tr>
<tr>
<td>Anthropithecus troglodytes.</td>
</tr>
<tr>
<td>Myosorex clarina.</td>
</tr>
<tr>
<td>Sylvisorex lunaris.</td>
</tr>
<tr>
<td>&quot; granti.</td>
</tr>
<tr>
<td>Chrysochloris stuhlmanni.</td>
</tr>
<tr>
<td>Otomys denti.</td>
</tr>
<tr>
<td>Mus denniae.</td>
</tr>
<tr>
<td>Lophuromys aquilus.</td>
</tr>
<tr>
<td>Dasymys medius.</td>
</tr>
</tbody>
</table>
Sitagra aliena.  
Serinus graueri.  
Cinnarvis regius.  
Zosterops jacksonii.  
Parus fasciiventris.  
Dryoscopus holomelas.  
Bradypterus barake.  
" cinamomeus.  
Apalis personata.  
" rawenzorii.  
Geocichla piaggae.  
Turdus abyssinicus.  
Cosyphya archeri.  
Alethe poliophrys.

Birds.

Turdis pyrrhopterus.  
" atriceps.  
Xenocichla kikuyuensis.  
Andropadus latirostris.  
Alsconax pumilus.  
Tarsiger ruwenzori.  
Chloropeta kenya.  
Trochocercus albonotatus.  
Cryptolopha heta.  
Mesopicus ruwenzori.  
Gallirex johnstoni.  
Haplopleia jacksoni.  
Columba arquatrix.  
Francolinus, sp. inc.

D. The Tree-Heath- and Moss-Zone (10,000 to 12,500 feet).

In this zone may be seen perhaps the most weird scenery of all. The trunks and branches of the heath-trees, wrapped in their thick masses of moss, on which grow luxuriant ferns, present all manner of curious and grotesque forms. The trees themselves are 30 to 40 feet high and lean at all angles, as if weighed down by their burdens of wet moss. Generations of dead ancestors lying across one another upon the ground, and covered over with a soft treacherous layer of moss a foot or more in depth, make the walking both difficult and dangerous. One may easily take a false step into a hole 6 or 8 feet in depth between two trunks; and these fallen trees are not soft rotten wood, but are well preserved and hard as steel, with many dangerous sharp points where the boughs have been broken off. It is truly wonderful how the Bakonjo porters (the tribe inhabiting the lower slopes of the mountain) carry the loads over these slippery tree-trunks, with intervening morasses of black mud 2 or 3 feet in depth, for they never drop a load and get along at a good pace.

The best idea of the scenery of the moss- and heath-zone is obtained by picturing a wood of large birch-trees, upon which an abnormally heavy fall of snow has descended without a breath of wind to disturb it as it settles, so that it rests in great masses along the trunks and boughs and hangs in curiously-shaped lumps among the more slender branches. The moss on the giant heath looks much like this, but the masses on the trees and stumps are larger; the moss, too, is of many beautiful shades of colour—green, brown, yellow, pink, sometimes almost white, and many shades of red, all blending together into a perfectly harmonious and warm tint of reddish-brown. The soft beds of moss look comfortable and most inviting to sit upon, but a disappointment
awaits one should the invitation be accepted, for the moss is like a sponge full of water and moisture drips from the trees above. Long wisps of grey and straw-coloured lichen swinging gently in the breeze give a look of great antiquity to the scene.

Very few mammals inhabited the wet and gloomy regions between 9000 ft. and the summit. The only species which existed in any numbers were *Otomys dartmouthi* and *Dasymys montanus*, which were extraordinarily numerous from 12,000 to 13,500 ft., and the Hyrax (*Procavia ruwenzorii*), which was plentiful from 10,000 to 12,000 ft., but was not found lower down.

This is the real home of the Alpine Flycatcher (*Cryptolopha alpina*), and it is far more numerous than any other species of bird found in this zone. The male utters a short melodious song, not unlike that of the Willow-Wren, a bird which it closely resembles in its habits.

In this zone is found Stuhlmann’s Sun-bird (*Cinnyris stuhlmanni*), a bird with a remarkably restricted range, for the species is entirely confined to a belt between 10,000 and 11,000 ft., and is by no means common. It is perhaps most plentiful just on the border of the bamboo and tree-heaths, where the two zones intermingle, and on this account it may sometimes be met with a little lower down, but never above 11,000 ft.

The difficulty of working the high cold regions prevented much trapping, and the list of animals which can be given as inhabiting the tree-heath-zone only includes:

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**Tree-Heath- and Moss-Zone (10,000 to 12,500 feet).**

**Mammals.**

- Rousettus lanosus.
- Myosorex blarina.
- Crocidura fumosa montis.
- Sylvisoere lunaris.
- Chrysochloris stuhlmanni.
- Felis pardus ruwenzorii.
  ” serval ?
- Otomys dartmouthi.
- Mus dennie.
- Lophuromys aquilus.
- Dasymys montanus.
- Procavia ruwenzorii.
- Cephalophus rubidus.

**Birds.**

- Corvultur albicollis.
- Ciunamopterus tenuirostris.
- Serius graueri.
- Cinnyris stuhlmanni.
- Parus fasciiventris.
- Bradypterus cinnamomeus.
- Turdus abyssinicus.
- Cossypha archeri.
- Tarsiger ruwenzorii.
- Cryptolopha alpina.
- Swift, small (not obtained).
- Buteo augurals.
E. The Senecio- and Lobelia-Zone (12,500 to 14,500 feet).

At an altitude of about 12,500 ft. the tree-heaths almost disappear and senecios and lobelias, which appeared at a lower level, are the most prominent feature of the vegetation. *Lobelia deckenii* is found abundantly in the level swamps up to 13,000 ft., and *L. stuhlmanni*, which appeared first at 10,000 ft., is replaced at 12,000 ft. by *L. wollastoni*, which flourishes on the mountain-slopes up to 14,000 ft. In the level places the ground is a swamp covered by moss, rushes (*Luzula johnstonii*), and lobelias. On the slopes bushes of helichrysum grow amongst the lobelias, and beneath the moss is black mud a foot or more in depth.

Two Shrews (*Crocidura famosa montis* and *Sylvisorex lunaris*) were caught on the swampy ground below the glacier, near the source of the Mubuku, at an altitude of about 12,800 ft., and a small animal, probably one of these Shrews, was seen at an altitude of 14,200 ft.

A few large Fruit-Bats (*Rossettus lanosus*) inhabited the caves and cliffs at 12,500 ft., but apparently they did not feed so high up and always flew down the valley in the evening. No other Bats were seen above 10,000 ft.

Several specimens of a Mouse (*Lophuromys aquilus*) were caught at about 12,000 ft., and they were plentiful in the swampy ground at 10,000 ft. A few specimens of *Mus dennieae* were caught in the rock-shelters at 12,500 and 10,000 ft.

*Otomys dartmouthi* and *Dasymys montanus* are extraordinarily numerous in this zone, and their runs were to be seen in all directions through the deep moss; but in spite of their numbers they were very difficult to catch, for they would take nothing that was offered to them as a bait, and the majority of the specimens obtained were caught by traps set in the runs. They appeared to be feeding upon rushes, mosses, and everlasting flowers, and refused the fresh beans, cheese, or bread offered to them, though a few were caught with a bait of oatmeal. Apparently both these species occur as high as 14,000 ft., as was proved by their numerous runs, but unfortunately none were caught in the traps set at that altitude.

Leopards wander up to the snow-line, but it is difficult to ascertain whether any live permanently high up on the mountains above 10,000 ft. Certain it is that under one of the numerous overhanging ledges of rock at 12,500 ft. there was a dry shelter in which a Leopard had evidently reared a litter of cubs, but there is still the question of food. Even supposing that small antelopes go up to 12,000 ft., though it is unlikely that they are found above 10,000 ft., the highest altitude at which any were seen, there would hardly be sufficient numbers to attract Leopards. In a Leopard's droppings at 12,000 ft. the hoof of a Red Duiker (probably *Cephalophus rubidus*) was found, but the animal was doubtless eaten lower down. Leopards living high up might, of course, become expert in the art of catching Hyrax, and might then acquire a liking for their flesh, and this seems their only possible means of subsistence.
One is, however, inclined to think that the Leopards of which traces were seen on the path to the snows in the Mubuku Valley were visitors from the foot of the mountains and not residents at high altitudes.

Under many of the overhanging cliffs and in caves at 12,000 and 13,000 ft. traces of some large cat, probably a Serval, were found. It was preying on the Hyrax, but although traps were set in the most likely places, none of our party was lucky enough to catch one.

The examples of Hyrax (*Procavia ruwenzorii*) obtained on the mountain were found from 10,000 ft. up to 14,300 ft. At lower elevations, where the rock is exposed on the surface, forming cliffs and cracks, the Hyrax may also be found, but no traces of them were seen below 10,000 ft. in the regions visited by the Expedition. They were most plentiful at an elevation of from 10,000 to 11,000 ft.

A species of Buzzard and a little Hawk which looked much like a Common Hobby were seen at 12,500 ft., but specimens were not procured.

No Owls were seen or heard above 9000 ft.

This is the home of the gorgeous Sun-bird *Nectarinia dartmouthi*, and in the early morning, when the sun sometimes shines for an hour or two, the country seems alive with the beautiful green males and the more sombrely clad females. They are not so conspicuous in dark misty weather, but the short bright song of the male may often be heard in spite of mist and rain. They are extremely plentiful in this zone, but are absolutely confined to it, none being ever found below 12,500 ft.

The only other bird which was at all numerous in this zone was the large Swift (*Cypselus maximus*), which nests in colonies in the higher cliffs up to 14,000 ft.

The Abyssinian Thrush (*Turdus abyssinicus*) was seen above 14,000 ft., but probably does not breed above 13,000 ft.

The White-necked Raven was seen flying about above the snow-line, and a pair had a nest in a cliff overhanging the camp at 12,500 ft.

The Alpine Flycatcher (*Cryptolophia alpina*) was found sparingly up to 14,000 ft., but this species is far more plentiful among the tree-heaths below 12,500 ft.

A few examples of Rüppell’s Reed-Warbler (*Bradypterus cinnamomeus*) and Grauer’s Streaked Seed-eater (*Serinus graueri*) were seen up here, but they were probably only stragglers from below.

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**Senecio- and Lobelia-Zone (12,500 to 14,500 feet).**

**Mammals.**

- *Roussettus lanosus.*
- *Crocidura fumosa montis.*
- *Sylvisorex lunaris.*
- *Felis pardus ruwenzorii.*
- *Serval?*
- *Otomys dartmouthi.*
- *Mus dennie.*
- *Lophaeomys aquilus.*
- *Dasymys montanus.*
- *Procavia ruwenzorii.*
Birds.

Corvultur albicollis.          Turdus abyssinicus.
Serinus graueri.              Cryptolophia alpina.
Nectarinia dartmouthi.        Cypselus maximus.
Bradypterus cinnamomeus.

F. The Snow-Zone (14,500 to 16,794 feet).

Permanent snow lies at about 14,500 ft., and, as Ruwenzori is practically on the Equator, the snow-line is constantly at the same altitude. No Palaearctic forms are found among the mammals and birds, but among the plants there are many alpine genera. No mammals or birds live above the snow-line. Butterflies, moths, and diptera were seen on the snow up to 16,000 feet, blown there by the almost constant wind. On the bare rocks above the snow-line a few worms, lichens, and mosses were seen.
RUWENZORI EXPEDITION REPORTS.

3. VERMES. *

By Frank E. Beddard, M.A., F.R.S., F.Z.S.

Received April 9, read April 23, 1907.

[Text-figures 3–8.]

The following pages relate to a number of species of Eudrilidae collected by the Ruwenzori Expedition which I received from the Natural History Museum through the kindness of Mr. W. R. Ogilvie-Grant. They were collected upon Mt. Ruwenzori along with a number of other species of Oligochaeta belonging to the genera Benhamia and Alma. These latter genera have been lately investigated by Signor Cognetti de Martis †, upon material collected by H.R.H. the Duke of the Abruzzi from the same locality. I have therefore limited myself to the description of the Eudrilidae, of which specimens must, I should presume, have been collected by the Italian expedition; but, so far as I am aware, they have not up to the present been described. All the species are new, but are referable to genera already defined, which genera are in every case East African in range.

Suborder Oligochaeta.

Polytoreutus ruwenzorii Beddard.


Of this species the collection contained but a single example, and that in a not very good state of preservation for dissection. I have, however, been able to ascertain, as I think without doubt, that the species is new and allied to a small group of species of this genus of which all the members hitherto known have been described by Michaelsen ‡. This group—which includes the species P. kirimaensis, P. usindjaensis, and P. sylvestris—is limited to the shores of Victoria Nyanza, Albert Nyanza, and the neighbouring country; and the occurrence therefore of an ally upon Mt. Ruwenzori is not surprising. The likeness of these four forms is to be seen chiefly in the peculiar relations of the diverticula of the spermathecal pouch and, in three of them at any rate §, in the existence of paired copulatory pouches debouching to the exterior on

* Mr. Beddard's Memoir is reprinted from P. Z. S. 1907, pp. 415–431.
‡ "Regenwürmer," in Deutsch-Ost-Afrika, 1896.
§ Apparently not in P. usindjaensis.

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either side, and independent, of the penis. The present species, the exact locality of which within this area I fix by means of its specific name, is represented by a fully mature example which measures 77 mm. in length by 5–6 mm. in breadth. It is therefore a rather stout and comparatively short worm.

The setae of Polytoireutus ruwenzorii are disposed like those of other species of the genus: i.e. the ventral setæ are much wider apart than the lateral setæ. The distance between each seta of the ventral pair is something like three times that which separates the individual setæ of the lateral pair. I have endeavoured to make an exact study of the distribution of the setæ upon the clitellar segments, concerning which there is some but not exhaustive information, on some other species of the genus already described; for this character seems to be one of probably systematic value. On these segments I could only find one of the two setæ of the lateral pair, and the seta present was the innermost. I ought to mention that these statements depend upon a microscopic examination of the entire cuticle stripped from the body, and not merely upon an inspection of the entire worm with a lens. The apertures through which the setæ are protruded are so obvious that the failure to find one is strong evidence of its absence. The ventral setæ, on the other hand, were present upon the clitellar segments with the exception of the xviith, where only the outer seta of the pair was present. Ventrally the clitellum is not so strongly developed as it is laterally and dorsally, which facts may be related to the presence or absence of setæ.

The clitellum of Polytoireutus ruwenzorii is, like that of Polytoireutus sylvestris and some, but not all, other species, best developed laterally and dorsally. Ventrally it is not so well-developed, and here the intersegmental furrows are plainer than they are laterally. It embraces segments xiii. to xvi., which is the usual extent of the clitellum in this genus.

The nephridiopores lie in front of the lateral pair of setæ, in front of each pair, but not definitely opposite either of the pair. They commence apparently in the fourth segment. A notable fact with reference to these pores is that when the cuticle is stripped off—and I have mapped the pores by this means—a considerable strip of the (as it would therefore appear) chitinous lining of the duct of the nephridium is also stripped off and protrudes from each aperture. I have not noticed anything of this kind in other Oligochaeta.

The oviducal pores are quite conspicuous and lie upon the xivth segment behind and to the outside of the nephridial row and the lateral seta of that segment. The single male pore is on the border of segments xvii./xviii. and the spermathecal pore behind it upon the interval xviii./xix.

The internal anatomy of this species, so far as concerns the alimentary and circulatory organs, seems to agree with that of the next species to be described and with the members of this genus generally.

The sperm-sacs are like those of Polytoireutus generally (but not P. bettonianus) in
being exceedingly long, and at their commencement and for a long way back of much less diameter than they are more posteriorly. The sacs extend for more than 30 segments back from their point of origin. That of the right side is fifteen segments longer than the shorter sperm-sac of the left side. The difference in length in this species is more pronounced than in that next to be described. The dilated chambers at the beginning of the sperm-duct immediately after it leaves the funnel are conspicuous in this as in the next species. The spermiducal glands are peculiar in form and do not altogether agree with those of *P. sylvestris*, to which they appear to come nearer in structure than to those of other species of the genus *Polytoreutus*. They agree, however, with the last-named species in the fact that the duct of the gland instead of emerging, as is the rule among these worms, from the end of the spermiducal gland, leaves the gland some little way in front of the proximal end. Each gland is rather bent in form, but otherwise lies straight. It is of firm consistency, but is not covered with a sheath of muscle appreciable to the naked eye or through a lens. The slight bending of the corresponding glands in *Polytoreutus sylvestris* figured by Michaelsen is rather exaggerated in the present species; they appear also to be rather longer in *P. sylvestris* than in *P. ruwenzorii*. Michaelsen does not mention in that species a character which is very noteworthy in *P. ruwenzorii*. He describes the "prostate" glands indeed merely as being "unregelmässig eingeschnürte." In the specimen of *P. ruwenzorii* reported upon here the surface of the gland was much marked by furrows, and the appearance given was that of a very long gland tightly coiled up with some concrescence between the individual loops of the coil. There is no indication of anything of the kind in the figures given by Michaelsen either of *P. sylvestris* or of its allies. The two copulatory chambers mentioned by Michaelsen * in *P. sylvestris* and *P. kirimaensis* are quite as large in *P. ruwenzorii* as in those species.

As in several species—for example, *Polytoreutus kirimaensis* †,—the present species of *Polytoreutus* is to be characterised by a very slender spermathecal sac which lies beneath the nerve-cord, than which it is no thicker. It is thus difficult to see, and, as Michaelsen has remarked, is apt to escape the eye. Particularly was this the case with the worm described in the present communication. For the contents were very slight in certain regions of the sac, which rendered it even more difficult of observation. It is certainly no wider than the nerve-cord, which overlies it. It is largely by virtue of the different forms which the spermathecal sac shows in this genus that the species of *Polytoreutus* are discriminated.

The species which I name *Polytoreutus ruwenzorii* is quite different in details, so far as concerns this organ, from any other species of which descriptions have been published. It comes nearest to *Polytoreutus* ‡ *kirimaensis* so far as I can gather, but shows obvious differences from that species.

* Loc. cit.
‡ Loc. cit. pl. ii. fig. 21.
The median spermathecal sac is slender as in that species and is straight or nearly so in its course beneath the nerve-cord, not much convoluted as in the allied *Polytoreutus sylvestris*. Anteriorly the sac passes into the fourteenth segment near to the anterior wall of that segment without any change. Arrived there it ends in two diverticula of short extent. These diverticula are apparently of much shorter extent than in any of the species *Polytoreutus kirimaensis*, *P. usindjaensis*, and *P. sylvestris*, whose spermathecal apparatus is built upon the same plan as that of *P. ruwenzorii*. Michaelsen, as a matter of fact, does not differentiate, except in the case of *P. usindjaensis*, between each diverticulum and the oviduct with which it becomes continuous, which in fact opens into it according to my interpretation of these various structures in the genus *Polytoreutus*. In the figure annexed hereto this arrangement is rendered plain. The

Spermathecal sac of *Polytoreutus ruwenzorii*.


sudden diminution of the caecum of the spermathecal sac (text-fig. 3) where it is continuous with the oviduct is obvious. Moreover, the oviduct is extremely long as compared with that of some other species, and is much coiled. Much more so is this the case with *Polytoreutus ruwenzorii* than with any of the three species mentioned as coming nearest to it in respect of the spermathecal sac and its forward diverticula. But apparently these three species do agree with *P. ruwenzorii* in having a much longer oviduct than in many other species of the genus. There is a further point of agreement between the new species described in the present paper and the three East-African

* Where, however, it is also occasionally less convoluted, perhaps in less mature individuals (Michaelsen, loc. cit. pl. ii. fig. 23).

species with which I have compared it in the nature of the spermathecal diverticula. The slender spermatheca just in front of the terminal section of the male efferent apparatus divides into two branches, which diverge at right angles and run dorsally, this portion of the spermatheca forming a tube more than 5 mm. in length. Towards the dorsal median line the tube of each side turns back upon itself after emitting a very short but slightly swollen diverticulum; the recurrent branch runs alongside of the outgoing branch, the two forming a loop which suggests at first sight a nephridium. It is indeed not very much thicker than the nephridia. The returning branch then, having arrived at the level of the point whence it departed, dorsally turns at right angles and joins its fellow a little in front of the external aperture, which is quite inconspicuous. This peculiar origin of the diverticulum on each side is exactly matched in the three species to which the present is evidently allied, viz. Polytoxerus usinljaensis, P. kirimaensis, and P. sylvestris. But in all of the three species mentioned the diverticulum itself is of some considerable calibre. Polytoxerus kirimaensis comes nearest to the present species in that the diverticulum is smaller than in the other two. But even in that species it is much larger than in P. ruwenzorii. There is thus no difficulty in discriminating Polytoxerus ruwenzorii by the structure of the female efferent and copulatory apparatus. It is very interesting to notice that Polytoxerus ruwenzorii also shows points of resemblance to P. sylvestris and P. kirimaensis (but apparently not to P. usinljaensis) in the structure of the male efferent apparatus, which has been already described. There seems to be no doubt that these four species form a little group of Polytoxerus; but it is not possible in my opinion to separate them off from the other species as a genus or even a subgenus, at least at present.

It is clear from the above account that Polytoxerus ruwenzorii comes nearest to P. sylvestris of Michaelson. It is only, as I think, with this species that we have to reckon in determining the distinctness or otherwise of the Polytoxerus which I regard as new.

The most plain differences from this species are to be seen in the small size of the spermathecal diverticula and the very reduced length in front of the undivided portion of the posteriorly fused spermathecal sacs. It may be thus defined:—

Polytoxerus ruwenzorii.

Length 70–80 mm.; breadth 4–5 mm. Distance between seta of ventral pair three times that between seta of lateral pair. Outer seta of lateral pair absent on clitellar segments. Clitellum saddle-shaped. Male pore xvii./ xviii.; spermathecal pore xviii./xix. No genital area behind pores. Spermathecal sac bifurcated for a short distance in front; posterior diverticula very small; oviduct between spermathecal sac and receptaculum very long. Right sperm-sac longer than left. Spermiducal glands giving off duct in front of proximal end gland, much furrowed. Copulatory chambers present.
ZOOLOGICAL RESULTS OF THE RUWENZORI EXPEDITION.

POLYTOREUTUS GRANTI Beddard.

**Polytoreutus granti** Beddard, P. Z. S. 1907, p. 429.

In describing some years since* several species of this genus from East Africa, I found among a collection from Mt. Kenya two closely allied species, which, however, were plainly to be differentiated upon a careful study. It is interesting to find upon Ruwenzori the same presence of two closely allied species of *Polytoreutus*, not—it may be remarked—specially related to their congeners of Kenya. To find closely related species in the same comparatively restricted area is rather more remarkable than would have been the existence of more remotely allied examples of the same genus. This species, which I have named after Mr. Ogilvie-Grant, F.Z.S., comes nearer to *Polytoreutus kirimaensis* than does *P. ruwenzorii*. It is represented by a single specimen, not fully mature as to the clitellum, but apparently quite fully mature as to the sexual organs. One of the two copulatory chambers and the penis were protruded. The size and the external characters generally agree with those of *P. ruwenzorii*.

The worm is a trifle more slender. The *clitellum* was not developed, and upon the segments to be included in it I observed no deficiency of setae such as occurs in *P. ruwenzorii*. The relations between the distances which separate the two *setae* of each pair are much as in *P. ruwenzorii*. In the same way I observed a long tube of chitin to be extruded from the nephriodiopes. I do not like to assert positively that there is a difference between the two species in the segment which contains the first pair of *nephriodiopes*. But in the present species I noted a pair of these apertures in the third segment, *i. e.* a segment further forwards than I observed the same pores in *P. ruwenzorii*. The internal anatomy seems to agree with that of *P. ruwenzorii* and other species of *Polytoreutus* in the alimentary canal with its appended calciferous glands and in the situation of the last heart (eleventh segment). It may be mentioned, however, that *P. granti*, like *P. ruwenzorii*, has the dorsal vessel doubled in the twelfth segment. This doubling of the dorsal vessel is known in the genus *Polytoreutus*—for example, in *P. gregorianus* †.

The *male organs of reproduction* are much like those of *P. ruwenzorii*, and yet show differences in minutiae. As in that and other species of the genus, there is but a single *vas deferens* on each side, ending in front in an elongated chamber ("Samenmagazine") behind the funnel. The *sperm-sacs* are but a single pair. They are elongated and not so markedly thin anteriorly as in *P. ruwenzorii* and other species. The right-hand sac, as in that species, is longer than the left, but the difference is not quite so pronounced. The length of the longer sac is 21 mm. The two sacs are not joined at

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† Beddard, P. Z. S. 1901, vol. i. p. 191. Michaelsen has not referred to the condition of the dorsal vessel in the species with which the present is particularly compared.
their distal extremity. The terminal apparatus of the male efferent ducts is quite like that of P. ruwenzorii. In precisely the same way (text-fig. 4) the spermiducal gland is almond-shaped, and somewhat bent upon itself at the point whence its duct emerges; the surface is not, however, quite so strongly furrowed. The copulatory chambers seem to be exactly as in P. ruwenzorii.

The female organs of generation (text-fig. 5, p. 32), on the other hand, show greater differences from the same organs in P. ruwenzorii. There is the same slender median spermathecal sac which underlies the nerve-cord and is hardly convoluted in its course. Nor is it of any greater diameter than the nerve-cord. Anteriorly this sac divides into two, but there is no marked division near to the point of bifurcation of the sac between the spermathecal sac and the oviduct which opens into it. This break is very clear in P. ruwenzorii. And in that species the diverticula* of the spermathecal sac are short, the greater part of the coiled tube intervening between the unpaired spermathecal sac and the receptaculum being the oviduct. In the present species I could not ascertain the precise spot where the oviduct debouched into the diverticula of the spermathecal sac, but this point is at any rate very far removed from the point of bifurcation of the spermathecal sac; the greater part of the coiled tube, therefore, which intervenes between the unpaired spermathecal sac and the receptaculum being referable to the diverticula of the spermathecal sac. This important difference between these two species, otherwise very nearly allied, is remarkable. It is apparently correlated with another structural feature in which they differ. In examining microscopically this part of the reproductive apparatus in glycerine after removal from the body, I noted in addition to the receptaculum, called by Michaelsen the “Eitrichter-blase,” a spherical chamber which obviously corresponds to what Michaelsen calls the

* The word “diverticulum” is, of course, not strictly correct. The two spermathecae are fused in the middle and separate at both ends.
"Ovarialblase," and which is believed by him to contain the ovary. In *Polytoreutus caeruleus* this Ovarialblase forms the end of the branch of the spermathecal sac into which it opens on the one hand, and is connected on the other with a narrow tube communicating with the Eitrichterblase, which is, I think, part of the funnel of the oviduct pulled out by the retreating spermathecal sac. I cannot be certain that the spherical chamber in *Polytoreutus granti* has the same connections, but I cannot help regarding it as the homologous structure. I have not represented it in the figure (text-fig. 5). Now this appears to be wanting in *Polytoreutus ruwenzorii* altogether, as it is, for example, in *Polytoreutus magilensis*. Where it does occur it appears to mark the boundary between the oviduct and the spermathecal sac; if so, then the present species has, as I have already suggested, a very long diverticulum to the spermathecal sac and a short oviduct †.

Text-fig. 5.

Spermathecal sac of *Polytoreutus granti*.
Lettering as in text-fig. 3.

*Polytoreutus granti* differs from its ally *P. ruwenzorii* in possessing, like *P. kirimaeensis* and *P. sylvestris*, considerable appendages to the spermathecal sac posteriorly. These measured in my example 6 mm., and were therefore just a trifle shorter than the spermiducal glands, which measure 7 mm. in length. The proportions, in fact, are not very different from those of *P. sylvestris*; but in the present species the length of both structures seems to be considerably less than in *P. sylvestris*, where they extend very much further back in the body. As in that species, however, the spermathecal diverticulum on each side receives or emits the duct leading to the exterior from the side and not from the end. The relationships of the diverticulum to the thread-like regions of the spermathecal sac which enter and leave it were precisely like those

† Beddard, Quart. Journ. Micr. Sci. n.s. vol. xxxiv. pl. xxv. fig. 7.
depicted by Michaelsen for *P. sylvestris*, and not like those of *P. kirimaensis*; for in the latter species the spermathecal diverticulum simply bifurcates at its end into the incumbent and excurrent regions of the spermathecal sac.

The above account of the anatomy of *Polytoreutus granti* shows that it cannot be confused either with the species which I have just described or with any other known form. It comes nearest to *P. ruwenzorii* and to *P. sylvestris*. It differs most markedly from *P. ruwenzorii* by the characters of the spermathecal diverticula, and by the great length of the anterior undivided portion of the spermathecal sac. It differs from *P. sylvestris* mainly in the presence of a well-marked circular chamber at the end of the undivided spermathecal sacs, and by the shorter spermathecal diverticula and spermiducal gland. It may be thus defined:—

**Polytoreutus granti.**

*Length 70–80 mm.; breadth 4–5 mm. Distance between setae of ventral pair three times that between setae of lateral pair. Male pore xvii./xviii., spermathecal pore xviii./xix. Spermathecal sacs long and much coiled in undivided anterior region; posterior diverticula of some length. Oviduct between spermathecal sacs and receptaculum ovarum not long. Right spermat-sac longer than left. Spermiducal glands furrowed; duct arising before proximal end of gland. Copulatory chambers present.*

**Neumanniella ruwenzorii** Beddard.

*Neumanniella ruwenzorii* Beddard, P. Z. S. 1907, p. 423.

I refer two fully mature, moderately large individuals, as well as a number of smaller specimens, of an earthworm, apparently new to zoology, to the genus *Neumanniella* *, for reasons which the following account of its structure will render plain. The principal distinguishing feature of the genus is thus described by its founder, viz.:—"Die für mehrere neue Arten aufgestellte Gattung *Neumanniella* unterscheidet sich von den verwandten Gattungen *Eminoscolex*, *Gardullaria* und *Teleudrilus* durch die vollständige Unpaarigkeit der Samentasche." This is plainly to be seen in *Neumanniella ruwenzorii*. The larger of the two examples is 105 mm. long and measures 3 mm. in diameter. It is not strongly pigmented. The *prostomium* is very small and restricted within the peristomial segment.

The *setae* have the usual arrangement met with in this genus. The individual *setae* of the ventral pair are much wider apart than the closely paired *setae* of the lateral pair. The distance between each *seta* of the ventral pair is fully five times as great as that which separates the two *setae* of the lateral pair. The *setae* are rather small. On some segments, at any rate, of the clitellum there are no *setae* present at all. This is certainly the case with segment xiv., where the exact position of the lateral *seta*


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between the nephridiopore in front and the ovipore behind could be easily fixed. There is no trace upon the cuticle (which was stripped off and examined) of these setæ or of the orifices through which they protrude. In *Neumanniella siphonocheta* Michaelsen particularly notes that setæ are present upon the clitellum. Nothing is said upon the matter in the case of other species. The absence of setæ upon the clitellum is well known to occur in certain species of *Pheretima*, while other species have them on the clitellum.

The *nephridiopores* are very plainly visible upon the clitellar segments only with the use of a lens; but they are not thus visible upon the other segments of the body. The reason for this is not wholly, if at all, the turgescence of the clitellar segments, which thus makes the pores obvious. When the cuticle is stripped off it is very distinctly to be noted that the pores themselves are smaller in size upon the pre-clitellar than upon the clitellar segments. The difference is very considerable. This can hardly be the result of stretching, and must indicate a larger nephridium, or, at least, a larger terminal duct to the nephridium. I observed the first nephridiopore upon the third segment. Michaelsen states (of the species † where he notes the point) that the nephridiopores lie in line with the pair of setæ *c d*. I found in *Neumanniella ruwenzorii* a decided relationship to seta *c*. These pores are, it should be added, near to the anterior dividing-line of their segment.

The *clitellum* of *Neumanniella ruwenzorii* is complete all round the body. It is as strongly developed upon the ventral as upon the dorsal side. Its yellow colour contrasts with the rest of the body. The clitellum shows some variation from species to species of this genus in the fact of being saddle-shaped or as in the present species. It begins upon the xiiith segment, the posterior one-third of which is invaded by the clitellar epithelium. At the other extremity it ends upon the xviiith segment, so that the dimensions are as in other species of the genus, and as in the Eudrilidæ generally. I have already remarked upon the apparent absence of setæ upon this region of the body; there are also no traces to be observed externally of penial setæ in the neighbourhood of the male generative pore or elsewhere.

The most anterior of the *generative pores* is the *spermathecal aperture*. This is very conspicuous in the middle line and just on the boundary-line of segments xiii. and xiv. It is rather a small orifice, but nevertheless quite evident. There is no modification of the integument in its neighbourhood. On the xivth segment are the *paired orifices of the oviducts*. These lie exactly behind the nephridiopores of that segment and not far from the posterior boundary of the xivth segment. The apertures are quite conspicuous, but not much (if at all) larger than the nephridiopores upon the clitellum, which, as already mentioned, are wider than those apertures upon the segments in front of the clitellum.

† *N. siphonocheta* and *N. tenella*, loc. cit. pp. 502 & 505.
The male pore is a single aperture like the spermathecal pore. It lies exactly on the boundary-line of segments xvii. and xviii. It is considerably larger than the spermathecal pore, and the actual orifice is surrounded by an area having a rather transparent appearance. There is no protrusion of the Bursa propulsoria, nor is the orifice situated upon an area which is at all raised beyond the general level of the body. Apart from the slightly modified integument surrounding the male pore, which has no counterpart in the case of the spermathecal pore, the body of this species shows no genital papilla.

With regard to internal structures I have no observations to make, save those based upon examination with a lens and a microscope in the case of detached pieces of certain organs and systems. I have not investigated this Eudrilid by means of sections on account of its poor state of preservation.

With regard to the alimentary tract, the paired calciferous glands seem to me to be rather further back than the thirteenth segment, but as the worm was much softened I should not like to be quite certain. The condition of the proximal swellings upon the sperm-ducts seems in this genus to offer systematic characters for the differentiation of the species. For in *N. tenuis* these "Samennmagazine" are hardly marked at all, and they are quite conspicuous in *N. siphonochlata*. In the present species these structures are present, but rather different in their condition from those of some other Eudrilidae. Each of these swellings upon the sperm-duct is of oval form, tapering towards each end; but instead of lying immediately after the funnel of the sperm-duct, there is a considerable stretch of narrow tubular sperm-duct before the funnel. The latter lies deep within the sperm-sac. I have observed the characters of these bodies in the smaller specimens, but not in that from which the present description of the species has been prepared.

The terminal male efferent apparatus is constituted as follows:—Each of the two prostate or spermiducal glands measured about 10 mm. in length, and each gland was folded only once upon itself, thus forming a U. The diameter of each gland was not more than, if indeed quite so much as, 1 mm. The (morphologically) posterior end of each gland lay further forwards in the body than the proximal or anterior end of each spermiducal gland. Anteriorly each tubular spermiducal gland suddenly narrowed to form a firm and slender duct; the two ducts running backwards soon join and form an unpaired tube which constitutes one limb of a U, the anteriorly directed limb being the Bursa propulsoria. The spermiducal glands have a soft opaque appearance; they are not hard and with a nacreous glitter as in some Eudrilids. On the other hand, the Bursa propulsoria has an almost metallic appearance to the naked eye. It is slender and fusiform. There are no penial setae.

The spermathecal gland of this Eudrilid was unfortunately cut into when the animal was slit open along the back. It is more or less globular in shape, and occupies about the first half of the clitellum. It is quite dorsal in position, lying
immediately beneath the body-wall, and has pushed the dorsal blood-vessel to the left. The contents were an opaque white granular mass, in which could be detected nothing resembling a spermatophore, though the friable coagulated matter may have been the material out of which a spermatophore was to be constructed. The spermathecal sac (text-fig. 6), it should be said, widens out from its duct, which lies to the right side of the gut. I could see no indication of any communication between the spermathecal sac and the cavity of the intestine, such as occurs, for example, in Parascolex. The narrow duct of the spermathecal sac shows no nacreous glitter, nor

Text-fig. 6.

Spermathecal apparatus of Neumanniella ruwenzorii.


? Spermathecal pore.

does it ultimately widen out into any structure that may be termed a Bursa copulatrix. On the contrary, the duct of the spermathecal sac just before its opening on to the exterior suddenly narrows to half its former calibre and becomes more muscular, with transverse and longitudinal fibres. At the point where this narrowing begins, two ceca, one on each side, are given off and slightly curled backwards. These arise therefore from what I have termed the duct of the spermatheca. These ceca are rather longer than the very narrow terminal chamber of the spermatheca, with a diameter half again the width of that chamber; each cæcum is about half the diameter of the wider part of the duct of the spermatheca. From the extremity of each cæcum arises a short tube with very weak muscular walls; this becomes a little wider, and at a short distance from the spermathecal cæcum contains the oviducal
funnel, which can be seen to fan out within the chamber so formed. The oviduct apparently also opens partly into the receptaculum ovorum; the short oviduct opens on to the exterior in the usual way. The receptaculum ovorum was full of eggs. I could find no ovary within the chamber into which the funnel of the oviduct opens, and suspect that the ovarian tissue has been entirely transferred to the receptaculum ovorum. In any case, the various sacs and ducts mentioned appeared to form a closed system in which the ovary, if persistent elsewhere, was not included. I am not clear how far this species agrees and disagrees with others of the genus. In three of the four species described by Michaelsen, that naturalist figures a tube which encloses the oviducal funnel at one end and opens at the other into the spermathecal sac. There is no indication of any diverticula of the spermathecal sac which receives the "Verbindungsschlauch," such as I find in Neumannella ruwenzorii. Nor could I, as already mentioned, detect a special ovarian sac lodging the ovary and communicating with the rest of the egg-conducting apparatus, such as Michaelsen found. It should be observed that this bifurcation of the spermathecal sac anteriorly to receive the oviducts is exactly like the disposition of this sac in Polytoreutus. Its presence in the species Neumannella ruwenzorii necessitates a revision of the generic characters used by Michaelsen, who uses as a generic character the fact that "Samentasche ganz unpaarig." This character alone therefore serves to discriminate the present species from all of those described by Michaelsen. It may be thus defined:

Neumannella ruwenzorii.

Length 105 mm.; breadth 3 mm. Distance between ventral setae about five times that between dorsal setae. Some of the setae absent from clitellum. Clitellum complete, xiii./xviii. Male pore single, median, upon xvii./xviii. Spermathecal pore single, median, upon xiii./xvi. Spermiducal gland with well-marked narrow long duct, each of which joins its fellow to open into fusiform muscular terminal chamber. No penial setae. Spermathecal sac with two diverticula, which receive oviducts at extremities, and a small narrow muscular Bursa propulsoria.

Eminoscolex ruwenzorii Beddard.

Eminoscolex ruwenzorii Beddard, P. Z. S. 1907, p. 428.

I refer to a new species of the genus Eminoscolex a worm which is considerably softened, but in which the more important characters are nevertheless plainly visible. The completely paired condition of the male and female organs, coupled with the ventral calciferous pouches in segments ix., x., xi. and the paired glands in segment xiii., are decisive of its generic position.

The worm measures rather more than 200 mm. in length by 4–5 mm. in width, and
ZOOLOGICAL RESULTS OF THE RUWENZORI EXPEDITION.

is thus the largest species of the genus. The colour above is dark purplish brown. The clitellum was not developed. The setæ are paired; but the phrase descriptive of these structures in Michaelsen's amended definition of the genus*, viz., "Borsten ventral sehr weit, lateral enger gepaart," hardly applies to the present species.

The ventral setæ (text-fig. 7) are rather wide, much as in Polytoreutus, but the lateral setæ are only slightly more approximated, the proportions being about 5 : 6. It is remarkable that on the nine or ten anterior segments of the body the ventral setæ are very much larger, perhaps twice the size of the lateral setæ; this discrepancy

Text-fig. 7.

Ventral view of Eminoscolex ruwenzorii.
Some of the segments are numbered.

ceases after that point, and both pairs of setæ are equisized and small. The ventral pair of setæ of the xviith segment are absent.

The nephridiopores lie in front of the lateral pair of setæ, and are not specially related to one or other of the pair. They appear to begin in the third segment.

The oviducal pores are upon the xivth segment, in line with the nephridiopores.

The spermathecal pores are paired as in other species of the genus. The pore of each side lies in front of the outer of the ventral pair of setæ. The pores are not very large.

On the following intersegmental furrow (i.e., xiii./xiv.) are two pairs of minute orifices, which lie on a level with each of the four ventral setæ. They are rendered more conspicuous by being surrounded with a yellowish area. This area is the expression of internal sacs, which probably correspond to the copulatory glands found in many Earthworms of the families Megascolicidæ and Geoscolicidæ, but not, I believe, hitherto recorded among the Eudrilidæ. These sacs, though small, are very easily to be seen when the septum separating segments xiii. and xiv. is pushed forward.

The male pores are very large and conspicuous, and lie between segments xvi. and xviii., in a straight line with the spermathecal pores. The flaps of skin surrounding the pores cause them to be rather obliquely set, as is shown in the accompanying figure (text-fig. 7). The hinder margin of each orifice is much thickened and forms a glandular pad; the two very nearly meet in the middle line behind.

The intersegmental septa are not very much thickened, and they cease to be at all thickened after that which separates segments xi./xii. The gizzard, which is well developed, though not very large, lies undoubtedly in segment v. The median calciferous pouches are in segments ix., x., and xi. The paired calciferous glands of segment xii. have rather an unusual form. Each consists of a relatively narrow tubular coiled structure very much longer than it is broad. This lies coiled on each side of the gut in the xiiith segment.

The dorsal blood-vessel is nowhere double; the last pair of hearts is in segment xi.

The male organs are much like those of other species of this genus. The present species is holandrous, and the sperm-sacs are two pairs, more or less tongue-shaped bodies, in segments xi. and xii. The ends of the sperm-ducts near to where they open into the sperm-sacs are, as in other Eudrilidæ, dilated into what Michaelsen has termed a "Samennmagazin." As in other species of Eminoscolex, the region of the sperm-ducts in question is not only widened but is of some length and coiled, forming a body of oval contour constituted by the closely approximated windings of the tube. It is conspicuous through its white colour as in other Eudrilidæ. The sperm-duct opens into the tip of the spermiducal gland (text-fig. 8, p. 40), which is in this species directed forwards; the entire gland is sausage-shaped and bent once upon itself. It ends in a narrow muscular duct which opens into the rather large Bursa propulsoria; the latter is of circular contour. There are no penial setæ.

The female organs of generation were so much softened that some details have probably escaped me. It is, however, plain that there are a pair of nearly spherical spermathecal sacs which are perfectly free from each other and do not communicate, as in some species of the genus, at the distal extremity with each other. The oviduct is very long and straight in its course; anteriorly it is seen to communicate with a rather small receptaculum ovorum, which lies close to the septum dividing the xiiith from the xivth segment to the outside of the oviduct. In the other side is a slight swelling which appears to be fixed against the septum dividing the same segments,
which doubtless represents the "Eitrichterblase" and the "Ovarialblase." I am doubtful whether this chamber is also in communication with the spermathecal sac or surrounds it. It is not, however, necessary to settle this point for purposes of the identification of the species, which I believe is sufficiently distinguished from other species of the genus hitherto described. Of these there are ten species known.

A peculiarity of Eminoscolex ruwenzorii is the thickened fold which bounds the male pores posteriorly, and is comparable to a rudimentary penis or pair of penes. Of

Text-fig. 8.

Terminal male organs of Eminoscolex ruwenzorii.


this structure there seem to be the equivalents in a few other species, viz., in *E. sylvestris*, *E. barnimi* †, *E. neumannii* ‡, *E. viridescens*, and perhaps *E. toventus* §.

Although the mere thickening which I have figured in *E. ruwenzorii* is different from the projecting penis of *E. viridescens*, the immaturity of my specimen might account for the difference very easily.

But *Eminoscolex ruwenzorii* is to be distinguished from *E. sylvestris* and *E. barnimi* by the fact that the dorsal setae are further apart than in those species, where the distance *a–b* is three times the distance *c–d*. It cannot be confused with *E. neumannii* by reason of the fact that in the latter species the spermathecal pores are opposite to the lateral setae, whereas in *E. ruwenzorii* they are, as in the majority of species, in front of the ventral setae. There remain *E. toventus* and *E. viridescens*. In the latter species ‖, however, the spermathecal pores are a segment further back and are placed

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† *Id.*, MT. Hamb. wiss. Anst. xvii.
‡ *Id.* ibid. xiv.
‖ *Id.*, Oligoehata in 'Das Thierreich,' Lief. 10 (Berlin, 1900), p. 407.
in a common depression; in *E. toreutus* the spermiducal glands appear to have a different form and the spermathecae are larger. *Eminoscolex ruwenzorii* may be thus defined:—

**Eminoscolex ruwenzorii.**

Length 200 mm.; breadth 4–5 mm. Ventral setæ rather further apart than lateral, the proportions being 6 : 5. Ventral setæ of nine anterior segments enlarged. Male pores xvii./xviii. with thickened posterior margins (a penis?); female pores xii./xiii. in line with seta b. Copulatory-gland pores on xiii./xiv. Proximal ends of four sperm-ducts widened and twisted into a closely adpressed coil. Spermiducal gland of only moderate length, with narrow muscular duct. Spermathecae more or less spherical, not conjoined.
The collection of Mollusca now reported on, although small, contains several specimens of interest, besides the four species which appear to be new. The fine series of *Limicolaria saturata* and *L. smithi* show how variable those species are both in form and colour, and the variety of the large *Achatina schweinfurthi* presents a very unusual style of coloration.

As the Ruwenzori district had been to a certain extent explored by Dr. Stuhlmann † in 1894, it is rather surprising that the present collection, consisting of only fourteen species, should contain so large a proportion of novelties.

A few new species obtained by the Duke of the Abruzzi on Ruwenzori have been described by Carlo Pollonera.§


*a-n.* Mubuku Valley, E. Ruwenzori, 10,000–14,000 feet.

Several specimens from the above elevation apparently belong to this species, or to *Vitrina cagnii* Pollonera §. From *V. oleosa* they may differ in having the peristome of the same colour as the rest of the shell, and not black. *V. cagnii* is said to be "fusco-cornea," whereas the present specimens are yellowish horn-colour.

2. *Trochozonites leptaleus*, sp. n. (Plate I. figs. 12, 13.)

*Testa concave conica, ad peripheriam acute carinata, tenuis, anguste perforata, pallide cornea, supra haud nitida; spira elata, breviter concava; anfractus 8, lente accrescentes, superiores 2½ globosi, leves, ceteri planusculi, ad suturam carinati, plicis tenuibus oblique arcuatis numerosis ornati, ultimus infra carinam acutem nitens, planusculus, lineis incrementi tenuissimis, striisque microscopicis.*

* For explanation of the Plate, see p. 50.
† For an account of Dr. Stuhlmann's collections, see Martens and Simroth in 'Deutsch-Ost-Afrika,' vol. iv. (1898).
irregulariter concentricis sculptus; apertura obliqua, subquadrata, brevis; peristomium tenue, margine columellari ad insertionem breviter expanso et reflexo.

Alt. 8·5 mm., diam. 11.

a. Mubuku Valley, E. Ruwenzori, 10,000–14,000 feet.

Under a lens the plicate look quite rib-like; they do not extend below upon the keel so as to affect the regularity of it.

*T. mamboiensis* Smith * is similar in form, but less strongly plicate upon the upper surface, and the concentric sculpture upon the base of the body-whorl is more distinct than in the present species. It is also darker in colour.

3. **Trachycystis ruwenzoriensis**, sp. n. (Plate I. figs. 9–11.)

Testa orbicularis, depressa, tenuis, anguste umbilicata, olivaceo-cornea, ad apicem albida, vix nitida, lineis incremienti arcuatis conspicius subplicatis ornata; spira parum elata, ad apicem obtusa; anfractus 5, sutura subprofunda sejuncti, convexiusculi, regulariter accrescentes, superiores duo levès, ultimus hand descendens, infra plicis vel striis minus conspicius; apertura oblique lunata; peristomium tenue, simplex, margine columellari ad insertionem dilatato et reflexo.

Diam. maj. 13 mm., min. 10½, alt. 6½.

a–d. Mubuku Valley, E. Ruwenzori, 10,000–14,000 feet.

In form this species is rather like *Helix bukobae* Martens †, but is more narrowly umbilicated. The colour of the latter species, moreover, is described as chestnut-brown, with a light zone on the body-whorl.

The present species is so thin that the underside of the body-whorl is liable to wrinkle when dry. The lines of growth are well-marked, even finely plicate above.

4. **Ena (Cerastus) retirugis** (Martens).

*Buliminus retirugis* Martens, Deutsch-Ost-Afrika, vol. iv. p. 60, pl. iii. fig. 25.

a. Ruwenzori (no particular locality given).

A single specimen agreeing in all respects with the description, excepting that the network or malleation is of the same colour as the rest of the shell and not pale yellow. It is rather smaller than the type, having a length of 24 mm. *E. lagariensis* Smith is probably only a variety of this species in which the malleation is almost obsolete, and *Buliminus (Petroes) aloysii sabaudiae* Pollonera is the same, or a very closely allied form.

5. **Achatina Schweinfurthi**, var. (Plate I. fig. 8.)

*Achatina schweinfurthi* Martens; Pilsbry, Manual Conch. vol. xvii. p. 61, pl. vi. fig. 15.

a. Ruwenzori (no special locality stated).

† Deutsch-Ost-Afrika, vol. iv. p. 58, pl. iii. fig. 23.
Only a single specimen is in the collection. It is, however, peculiar on account of the absence of the dark irregular brown markings upon the last two whorls; these are covered with a yellow periostracum, beneath which the shell is white. *A. tinctoria* Reeve, *A. weynsi* Dautzenberg, *A. buchneri* Martens, and the present species are very difficult to separate, all being characterized by a very similar style of coloration and sculpture.


a. Ruwenzori (no special locality given).

Only one young shell was obtained. For further references, see Pilsbry, Manual of Conchology, 2nd series, vol. xvi. p. 300; and for the anatomy, Reynell, Proc. Malac. Soc. vol. vii. p. 97, pl. xvii.

7. *Limicolaria saturata* Smith. (Plate I. figs. 1-4.)


? *Limicolaria ventricosa* Smith, l. c. p. 324, fig. 2, abnormal.

a—a'. Ruwenzori (no special locality given).

A fine series of specimens of this species indicates that it is very variable both in colour and form. These differences can be shown only by means of coloured figures.

One set of specimens is of the same rich dark colouring as the type, whereas another set has quite light brown markings. One of the most constant features is the size of the two or three apical whorls: these are rather small, so that the top of the spire is slender in comparison with other species. I do not feel quite sure that *L. ventricosa* is an abnormal example; certain specimens in the present collection approach it in shape, but none of them has the top whorls quite so broad.

8. *Limicolaria smithi* Preston. (Plate I. figs. 5-7.)


a–f. Ruwenzori (no special locality given).

Also recorded from the Uganda District (*Preston*); Bunjako, N. of Victoria Nyanza; between Entebbe and Fort Portal, Toro, Uganda; Kibiro, east shore of Lake Albert.

As pointed out by the author, this species is extremely variable in colour, and the differently coloured shells appear to occur together in the same locality.

Some specimens are white covered with a greyish-olive periostracum, and with or without a blackish umbilical zone. Others have a dark infrasutural interrupted band besides the basal zone. Some specimens, like the type, have the upper whorls blackish-purple, or inclining to purplish-rose, or again quite pale. The finest example, from Kibiro, east shore of the Albert Nyanza, is a very striking shell with broad,
almost black, oblique flames and short wavy lines of a reddish-brown colour at the upper part of these whors. In another shell from the same locality these reddish lines extend further over the whors, in the last of which they cover three-fourths of its extent. I am inclined to think that Martens* has figured this species as L. colorata, vars. saturata and infrasceco, and perhaps fusescens. L. mediomaculata Martens† is also very closely allied.

9. Homorus fuscostrigatus, sp. n. (Plate I. fig. 14.)
Testa subulata, sordide lutea, strigis obquis numerosis saturate fuscis picta, ad apicem hand strigata, ad suturam linea lutescente cincta; anfractus 10, lente accrescentes, leviter convexiusculi, lineis tenuibus confertis incrementi striisque spiralibus decussati, ultimus ad peripheriam rotundatus, linea fusca indistincta cinctus; apertura inverse auriformis, cæruleiscens, longitudinis totius 1⁄4 fere æquans; labrum tenue, nigresceco; columnella tenuis, leviter arcuata, antice breviter truncata.
Longit. 32 mm., diam. 7½; apertura 7½ mm. longa, 4 lata.


Subulina mortensi of Dupuis and Putzeys appears to be closely related to the present species, but is much larger, with more convex whors.

The lines of growth in H. fuscostrigatus are somewhat puckered at the suture, which is consequently more or less uneven; they are very fine and thread-like, and, being crossed by the transverse striæ, are cut up into elongate sections. The peripheral dark line is very indistinct and may be an individual peculiarity.

10. Homorus bicolor, sp. n. (Plate I. fig. 15.)
Testa mediocriter elongata, nigro-rufescens, ad apicem flavescens, nitens, lineis incrementi obquis, striisque spiralibus tenuibus sculpta; spira ad apicem obtusa; anfractus 6½, regulariter crescentes, valde convexi, superiores 2½ flavescentes, ultimus perconvexus, striis spiralibus minus distinctis; apertura inverse auriformis, intus purpurascens, longitudinis totius 3⁄8 adequans; labrum extra incassatum; columnella in medio arcuata, antice oblique truncata.
Longit. 16 mm., diam. 6½; apertura 6 mm. longa, 3½ lata.


This species is remarkable on account of the yellowish apex, which contrasts strikingly with the rest of the shell, and for the thickening of the labrum on the outside with a rounded rib, a feature which perhaps may prove to be of generic importance.

* Deutsch-Ost-Afrika, vol. iv. p. 105, pl. iv. figs. 2, 6, 8, 10, 12, 14.
The surface of this shell is highly glossy, although exhibiting spiral striae and lines of growth. The latter, under the lens, have a somewhat puckered appearance below the suture.

11. **Homorus runssorinus** (Martens).


_a-c._ Mubuku Valley, E. Ruwenzori, 10,000 feet.

Three specimens, two of which are larger than the shells described by von Martens. Length 32 mm., diam. 11; aperture 12 mm. long, 6 broad.

The upper whorls exhibit more or less indistinct spiral striae, and the whole surface under the microscope presents a minutely frosted appearance.

12. **Cyclophorus (Aperulus) elatior** Martens.

_Cyclophorus elatior_ Martens, Deutsch-Ost-Afrika, vol. iv. p. 8, pl. i. fig. 1, pl. ii. fig. 4.

_a-c._ Mubuku Valley, E. Ruwenzori, 5000-7000 feet.

This species is remarkable for the spiral brown lineation of the yellowish periostracum. When this is worn off the shell is dirty white beneath. Von Martens's specimens were collected by Dr. Stuhlmann near the south shore of Lake Edward.

13. **Limax natalensis** Krauss.

_Limax natalensis_ Krauss, Südafrik. Moll. p. 85, pl. v. fig. 15.

_a, b._ Ruwenzori (no special locality given).

This South African species appears to have a wide range northward, if the various shells which have been recorded under this name all belong to one and the same species. It is said to occur in Lakes Nyassa and Tanganyika.

14. **Planorbis bridouxianus** Bourguignat.


_a, b._ Ruwenzori (no special locality given).

Two specimens, which seem to agree with the description and figures of this Tanganyika species.
PLATE 1.

8. *Achatina schweinfurthi*, var., p. 44.
9–11. *Trachycystis ruwenzoriensis*, p. 44.
15. *biclor*, p. 46.
LAND SHELLS FROM RUWENZORI.
5. CRUSTACEA.

By W. T. Calman, D.Sc., F.Z.S.

Received and read November 17, 1908.

The river-crab of Ruwenzori (I find no reason to suppose that more than one species is represented in the collection) belongs to one of the most puzzling and imperfectly known sections of a very difficult genus.

All the specimens differ in some degree from the type-specimens of *Potamon johnstoni* (Miers) from Kilimanjaro with which I have compared them, but they appear to approach more closely to that species than to any of the others hitherto described, and I do not consider that the differences justify their separation under a new specific name.

Only the acquisition of large series of river-crabs from all parts of Africa will enable the species inhabiting that continent to be properly defined, and I may take this opportunity to remind collectors that river-crabs from any part of Africa (and, indeed, from most parts of the world) will be very gladly received at the Natural History Museum.

*Potamon (Potamonautes) johnstoni* (Miers).


Twelve specimens were collected by the Ruwenzori Expedition, and seven specimens from the same region, presented by Sir H. H. Johnston in 1901, are in the Natural History Museum.

The smallest specimen measures 12.5 mm. and the largest 33.5 mm. in length of carapace. The breadth-ratio of the carapace varies from 1:32 to 1:48, being on the whole less in the smaller specimens. The surface of the carapace is moderately flat, except in its anterior third, where it is convex antero-posteriorly. The inter-regional grooves are strongly marked, especially the central part of the "cervical" groove and the transverse branchial grooves or posterior branches of the cervical; the latter constrict the branchial regions so that the postero-lateral margin of the carapace is concave or almost notched. The anterior or lateral limbs of the cervical groove die out almost immediately in front of their junction with the posterior branches. The inner branchial
areolae are well defined, as are also the branchio-cardiac grooves, and there is on each side a posterior transverse branchial groove, the two being more or less distinctly united by a fainter depression across the intestinal area. The mesogastric furrow is deep and its branches are not angulated.

In the smaller specimens (20 mm. in length or less) the postfrontal crest, which is nearly straight on each side but advanced in the middle, is sharply defined and minutely granulated. The antero-lateral margin has also a marginal line of fine granules and the antero-lateral regions of the dorsal surface are slightly rugose. With increasing size, however, the whole carapace becomes smoother; the postfrontal crest becomes softened and rounded, although generally retaining some faint traces of granulation; the antero-lateral margins become rounded, with, as a rule, only a slight indication of the granular line; and the whole dorsal surface becomes smooth and polished.

The frontal width varies from about 0.33 of the width of the carapace in the smallest specimens to 0.26 in the largest; the front is strongly deflexed, and its margin, raised and beaded in small specimens, becomes smoothed off in the larger. The eyes are

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Text-fig. 9.

*Potamon (Potamonastes) johnstoni.* Male specimen from Ruwenzori.

Above is shown the larger chela of the same specimen from the outer side. Both figures are natural size.
relatively much larger in the small and medium-sized specimens, where they fill, or nearly fill, the orbits; in the largest specimens the orbits appear much too large for the eyes. The margin of the orbits is a raised line which is beaded only in small specimens. The outer orbital angle projects at most very slightly and is often quite smoothed away; below it there is usually a small orbital notch, but in some of the larger specimens this can no longer be detected.

The degree to which the lateral margins of the carapace project beyond the outer orbital angle (a point to which much importance is attached by Miss Rathbun in her revision of the subgenus) varies with the size of the specimen. In all the specimens of 20 mm. carapace-length or less the lateral projection is less than the major diameter of the orbit; in all the specimens of 25 mm. and upwards it exceeds that diameter.

On the under surface of the carapace the pterygostomial furrow is, at most, indistinctly granulated; the inferior prolongation of the cervical groove (separating the sub-hepatic and sub-branchial regions) is more or less indistinct, sometimes practically obsolete (as in Hilgendorf's P. bipartitum).

Text-fig. 10.

Abdomen of the specimen shown in text-fig. 9. Natural size.

The groove on the merus of the third maxillipeds varies in distinctness without much relation to the size of the specimens; it is never very strongly marked and in some of the large specimens it is altogether obliterated. The merus of the chelipeds has its three edges granulated, the granules being most prominent and conical on the anterior edge. The second tooth on the inner side of the carpus is small and is followed on the proximal side by a row of large granules. The chelae are smooth, with faint grooves on both fingers; the fingers gape to a varying degree in large specimens of both sexes and are generally a little more slender in large males than in females.

There are two transverse grooves on the sternum of the male in front of the abdomen; the anterior region of the sternum in females is setose. The male abdomen has nearly straight sides and the angle which the outline forms between the last two segments does not project laterally.

The two type-specimens of P. johnstoni from Kilimanjaro (which have not hitherto been figured) are males and are somewhat larger (35 and 37 mm. carapace-length) than any of the Ruwenzori specimens. They agree with the latter in the general characters of the "perlatus-group" as defined by Miss Rathbun (t. e. p. 162) and in
the general disposition of the grooves of the carapace, especially the obliteration of the anterior branch of the cervical groove and the strong development of its posterior branch (or transverse branchial groove), which constricts the branchial region. They further agree with the larger of the Ruwenzori specimens in the fact that the lateral projection of the carapace exceeds the major diameter of the orbit, in which respect the character of the species is wrongly given by Miss Rathbun in the monograph referred to. The differences between the two forms may be summed up by saying that

The larger of the two type-specimens (males) of "Thelphusa depressa var. johnstoni," described by Miers from Kilimanjaro. Some of the walking-legs have been reconstructed from those of the other specimen. Above is shown the larger chela of the same specimen from the outer side. Both figures are natural size.

the ridges and granules of the carapace and chelipeds are much sharper and better defined in the Kilimanjaro types, although the latter are larger than the largest and smoothest of the Ruwenzori specimens.

In the types, the postfrontal crest is sharp and more or less distinctly granulated; the antero-lateral marginal line is well-marked and its granules large and distinct; the raised margin of the front and orbits is more sharply defined and in the orbits is
distinctly beaded, and the outer orbital angle is more prominent, almost dentiform. A fine beading is also present along a part of the pterygostomial furrow. On the merus of the chelipeds the marginal granules are larger and sharper, more especially one at the distal end of the inner edge; the granules behind the second inner carpal tooth are almost obliterated. The larger chela is relatively a little longer and more slender. The furrow on the merus of the third maxillipeds is much more distinct than in the Ruwenzori specimens.

Miss Rathbun has suggested, as Hilgendorf also did, that the species to which she gives the name *P. ambiguus* (= *P. hilgendorfi* Hilgendorf nec Pfeffer) may be identical with *P. johnstoni*, while, on the other hand, Ortmann places *P. hilgendorfi* Pfeffer as a synonym of *P. johnstoni*. Whether either or both of these opinions are likely to be correct I do not venture to say; I think it probable that only a re-examination of the type-specimens will enable the synonymy of the existing species of this group to be finally settled. Nobili * has described a species from Ruwenzori under the name *Potamon (Potamonautes) aloysii sabaudiae*, but his description is so brief that I find it impossible to form any conception of the species.

One of the females in the present collection bears numerous eggs (each 2.6 mm. in diameter) attached to the abdominal appendages, and another has numerous young ones sheltering under the abdomen. As few good figures of young Potamonidae exist I have thought it well to give a figure of one of these. They are in what Mercanti † has called the second stage of development. Mercanti states that in the young of *P. edulis* at this stage abdominal appendages are absent, but Miss Rathbun finds them to be present in all the species examined by her. They are certainly present in all the young individuals of the species dealt with here, but they differ in the degree of development. In some specimens they have the form of distinct and prominent papillae on the second

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to the fifth abdominal somites. In other specimens the papillæ on the second somite are distinct, but those on the following somites are much less so. It is possible that these latter specimens are males, but I could find no trace of appendages on the first somite, where they occur in the adult males. The carapace of the young specimens measures about 3·0 $\times$ 2·7 mm.

List of Localities.

"Ruwenzori, 6500 ft. Presented by Sir H. H. Johnston, K.C.B."

Seven specimens ($4 \sigma, 3 \varphi$), from 12·5 to 25 mm. in length of carapace.

"From a tributary of the Mpanga River, E. Ruwenzori. Ruwenzori Expedition."

Three specimens ($2 \sigma, 1 \varphi$), from 31–33 mm. in length.

"Small brook running into the Mubuku River, E. Ruwenzori. Ruwenzori Expedition."

Two specimens ($\sigma \varphi$), 29·5 and 33 mm. in length.

"Mubuku River, E. Ruwenzori, 6900 ft. Ruwenzori Expedition."

Six specimens ($3 \sigma, 3 \varphi$), from 13·5 to 33·5 mm. in length.

"From a small stream near Irumu, Eturi River. Ruwenzori Expedition."

One specimen ($\sigma$), 27 mm. in length.

The figures accompanying this paper were drawn by Miss G. M. Woodward.
A few species of Spiders and Ticks were collected by the members of the Expedition, and a list of these is given below. A single form, Cladomelea ornata, has been described as new.

**Suborder ARANEAE.**

**Family CLUBIONIDÆ.**

1. *Selenops vigilans* Pocock.
   Mokia, S.E. Ruwenzori, 3400 ft. A single female specimen.

   Mokia, S.E. Ruwenzori, 3400 ft. A female specimen.

3. *Ctenus (Leptoctenus) pulchriventris* Simon?
   Mubuku Valley, E. Ruwenzori, 7000 ft. Three females.

**Family ARGIOPIDÆ.**

   *Epeira pilipes* Lucas, in Thomson’s Arch. Ent. ii. p. 416, pl. 13. fig. 7 (1858).
   Mokia, S.E. Ruwenzori, 3400 ft. A large number of specimens.

   *Argiope flavipalpis* Lucas, in Thomson’s Arch. Ent. ii. p. 423 (1858).
   Mokia, S.E. Ruwenzori, 3400 ft. Four female specimens.

7. Cladomelea ornata Hirst.


Mokia, S.E. Ruwenzori, 3400 ft. A single female specimen.

♀. — Colour pale yellow; tarsi and distal portions of metatarsi fuscous, the metatarsi of the anterior pairs of legs being marked in the middle of their length with an additional dark patch; patellae and tibiae with light brown spots; cephalothoracic spines apically darkened.

Cephalothorax.—Ocular tubercle moderately elevated as compared with that of C. longipes Cambr., the three spines of the cephalothorax of fair length and the middle one slightly curved in an anterior direction.

Abdomen.—Dorsal tubercles of abdomen small, almost uniform in size, and distributed much as in C. longipes. The two median tubercles of the second row are replaced, however, by a single tubercle. Additional tubercles are present in the posterior median part of the abdomen, a couple being situated between the row of three tubercles and the lozenge-shaped group of four tubercles and another pair placed posteriorly to the lozenge-shaped group.

Legs.—Patella and tibia of first leg a little longer than metatarsus and tarsus, and with tibia, metatarsus, and tarsus more slender than is the case in C. longipes.

Measurements in mm.—Length of first leg 27, of second leg 19·5, of third leg 10, of fourth leg 13·5, of posterior cephalothoracic spine 2·75, of ocular tubercle 5, of cephalothorax 4·75, of abdomen 10; total length 14·5; breadth of cephalothorax 4·75, of abdomen 12.

Egg-cocoon pale yellow in colour, spherical, the surface smooth, the pedicle very short.

Suborder ACARI.

Family I X O D I D E.

8. Amblyomma marmoreum Koch.

Amblyomma marmoreum Koch, Arch. f. Naturg. (1) x. p. 224 (1844).

Mokia, S.E. Ruwenzori, 3400 ft. Five males from a puff-adder.


Semliki Valley. Six males and four females from a buffalo.

10. Ornithodoros savignyi cecus Neumann.


Uganda, from native huts. Numerous specimens.
SUWENZORI EXPEDITION REPORTS.

7. NEUROPTERA.
By W. F. Kirby, F.L.S., F.E.S.

Received November 13, read November 17, 1908.

I give in this and the following report lists of the species of named Neuroptera and Orthoptera from Ruwenzori in the Natural History Museum. All these, except a few noted as collected by Mr. Scott Elliot, were obtained by the Hon. Gerald Legge and Mr. A. F. R. Wollaston during the recent expedition to the district. A new genus and species of Dragonfly, a new species of Ant-lion, two new species of Cockroach, and a new genus and species of Grasshopper are here described.

Suborder ODONATA.

Family Libellulidae.

Genus Palpopleura.

Palpopleura lucia Drury.

Libellula lucia Drury, Illustrations of Exotic Entomology, ii. pl. 45. f. 1 (1773).

Three specimens: a male and a yellow form of the female taken at Mokia, S.E. Ruwenzori, on May 18 and 21 respectively, at a height of 3500 feet; and a specimen of the white form of the female, taken in the Mubuku Valley, E. Ruwenzori, at a height of 6000 feet.

Genus Accaphila, gen. n.

Male.—Eyes touching; frontal tubercle entire, very slightly arched, truncated in front; abdomen long, rather slender, second and third segments carinated, very slightly thickened at base, but with the sixth and seventh segments widened, as in the South American genera Dythemis and Macrothemis. Wings rather long and narrow, pterostigma moderately long: fore-wings with 11 continuous antenodal and 7 postnodal cross-nervures; the right fore-wing with a 12th rudimentary discontinuous cross-nervure; sectors of the arculus stalked, nodal sector hardly waved; loop-nervure open to the hind margin; no supra-triangular nervures, one cross-nervure in the lower basal cell; triangle regular, traversed, followed by one row of two or three cells, and then by two rows of cells, increasing only towards the hind margin; subtriangular space rather longer than broad, consisting of 3 cells: hind-wings with 8–9 antenodal and 8 postnodal cross-nervures; triangle free, its base coinciding
with the arculus, and followed by two rows of cells, increasing only towards the hind margin; two cross-nervures in the lower basal cell. Legs rather long and slender, with short spines; appendages of the second segment of the abdomen small and slender, but long and very conspicuous; upper terminal appendages very stout, hatchet-shaped, and pointed; lower appendage simple, pointed, about half as long as the upper ones.

A remarkable genus, of somewhat doubtful affinities.

**Accaphila eudoxia**, sp. n.

*Long. corp. 45 millim.; exp. al. 72 millim.; long. pter. 3 millim.*

*Male.*—Head yellow, frontal tubercle and middle of front (which is strongly punctured) purple; a spot on each side of front, the middle of nasus (except a short transverse yellow mark above and below), all the lower mouth-parts, except the triangular mentum, and some spots behind the eyes, black. Thorax bronzy green, with double yellow median line and interalary spaces yellow; pleura with alternate bands of bronzy green and yellow. Abdomen black, the two basal segments with yellow markings in the middle above and on the sides; the remaining segments have long yellow spots at the base on the sides; there is also a slender yellow middle carina above, marked with a large yellow spot on segment 7. Legs black, a line on the front femora beneath and the hind trochanters yellow. Wings hyaline; pterostigma brown, with a yellow central line; membrane of hind wings grey, very small.

Described from one male: Mubuku Valley, E. Ruwenzori, 6000 feet, Jan. 30, 1906.

**Genus Orthetrum.**


**Orthetrum chrysostigma.**


Six specimens from the Mubuku Valley, E. Ruwenzori: two males and one female taken at a height of 6000 feet, on Feb. 24, 1906; and two males and one female taken on March 2, 1906, at a height between 5000 and 7000 feet.

**Orthetrum sp.**


A species allied to *O. caffrum* Burm.

**Orthetrum truncatum.**


*Hab.* Kilimanjaro (Calvert); Ruwenzori (G. F. Scott Elliot).
Genus Cacergates.

Cacergates leucostictus.

Libellula leucostictus Burmeister, Handbuch der Entomologie, ii. p. 849. n. 8 (1835).

Four specimens, three males and one female, taken at a height of 3500 feet at Mokia, S.E. Ruwenzori, on May 21, 1906.

Family ÆSCHNIDÆ.

Genus Æschna.

Æschna Ellioti.


Brought by Mr. Scott Elliot from Ruwenzori.

Family AGRIONIDÆ.

Genus Phaon.

De Sélys-Longchamps, Synopsis des Caloptérygines, p. 23 (1853).

Phaon iridipennis.

Calopteryx iridipennis Burmeister, Handbuch der Entomologie, ii. p. 827. n. 9 (1835).

A male specimen taken at Fort Beni, Semliki Valley, July 21, 1906.

Genus Libellago.

De Sélys-Longchamps, Synopsis des Caloptérygines, p. 57 (1853).

Libellago sp.

Two female specimens, taken at a height of 6000 feet on Feb. 26, 1906, and between 5000 and 7000 feet on March 2, 1906, in Mubuku Valley, E. Ruwenzori. It is possibly a new species, but it would not be desirable to describe it without a larger series of both sexes.

Genus Micronympha.

Kirby, Synonymic Catalogue of Neuroptera Odonata, p. 140 (1890).

Micronympha senegalensis.


Two specimens from Mubuku Valley, E. Ruwenzori, taken at a height of 6000 feet on Feb. 24, 1906.
Suborder PLANIPENNIA.

Family MYRMELEONIDÆ.

Genus PALPARES.

Palpares paucimaculata, sp. n.

Exp. al. ant. 113 millim., post. 120 millim.; long. corp. 45 millim.

Body thickly clothed with shaggy grey hair; head yellow, antennæ, except at base, black, as also the mandibles, a transverse band below the antennæ, and three broad longitudinal bands, one behind each eye, and the third median and continued over the pronotum, which is otherwise yellow above and on the front and sides beneath; legs chestnut-red, tarsi black; abdomen dark brown. Fore-wings hyaline, with yellow nervures, the bounding nervure black; the costal cross-nervures formed of two spots, often united into a thick line; pterostigma veined with yellow; beyond it is a light brown irregular patch, dentated on the costal side, and followed by one or two smaller blotches and spots towards the apex of the wing; below these are two light brown dashes, running to the hind margin; about the middle of the wing are two irregular spaces indicated merely by the blackish outlines of the cells, and there are several other nervures marked with blackish, the most conspicuous being along the forking fourth nervure, where the spots take the appearance of thorns; the nervules running to the hind margin are also spotted with black on their inner half, except towards the base. Hind-wings with many of the cross-nervures in the costal area marked with thick black lines; pterostigma marked with yellow; three light brown apical blotches, and some evanescent dusky marks on the hind margin below; three brown blotches below the subcostal nervure—the first nearly round, the second forming an irregular oval, the third forming a longer and narrower irregular stripe, throwing off a curved branch outwards towards its lower end; below the round spot is a dark sagittate spot, above two or three small ones on the inner margin; below the second are two small spots between it and the hind margin; and on the hind margin itself are one or two smaller black or dusky marks here and there.

The fore-wings are almost exactly similar to P. submaculatus Kolbe (Deutsch-Ost-Afrika, iv. Netzflügler, p. 10. n. 5, plate, f. 5), and the hind-wings are very similar to some varieties of P. libelluloides Linn., except for the almost total absence of spots towards the inner margin of the hind wings.

One specimen, Mokia, S.E. Rwenzori, 3500 feet, May 18, 1906.
RUWENZORI EXPEDITION REPORTS.

8. ORTHOPTERA.
By W. F. Kirby, F.L.S., F.E.S.

Received November 13, read November 17, 1908.

Family Blattidae.

Genus Blatta.
Linnaeus, Systema Naturae, (ed. x.) i. p. 424 (1758).

Blatta montana, sp. n.
Long. corp. 10–12 millim., lat. 6–7 millim.
Shining black; antennæ, mouth-parts, tegmina, and legs rufo-castaneous. Tegmina short, subquadrate, closely but indistinctly punctured, coriaceous, slightly overlapping, and rather shorter than the pronotum, only extending to the second segment of the abdomen. Cerci stout, pointed, about as long as the prominent last ventral segment of the abdomen.

One male, three females; Mubuku Valley, E. Ruwenzori, 6000–13,000 feet, 1906.

Resembles Blatta truncata Sauss. from India, but the latter has the tegmina distinctly striolated.

Genus Dyscolegamia.


Dyscolegama wollastoni, sp. n.


Head small, reddish behind and black in front, shining; antennæ reddish; pronotum reddish brown or dark brown, the front, and in the lighter specimen a spot on each side above, reddish; tegmina rufous brown, with the costa redder; scapular nervure scarcely pale; outer lower half of right tegmen greyish hyaline; wings dingy hyaline, with the costal border and apex yellowish; abdomen and legs reddish; terminal segments of abdomen blackish above.

Resembles D. cesticulata Sauss. from the Malay Peninsula; but the tegmina are darker, and without whitish markings except very narrowly along the scapular vein. The veins of the tegmina are less numerous, wider apart, and irregularly reticulated by
more distinct transverse and loop nervures. There is a rather smaller species, with lighter tegmina and darker wings, in the Natural History Museum from Mombasa.

Two specimens from Mokia, S.E. Ruwenzori, collected in June 1906, at an elevation of 3500 feet.

**Family Mantidae.**

**Genus Calidomantis.**

*Calidomantis fenestrata.*

*Mantis fenestrata,* Fabr. Spec. Ins. i. p. 349. n. 23 (1781).


**Genus Popa.**

*Popa spurca.*


One specimen from Mpanga Forest, Fort Portal, Uganda, at a height of 5000 feet.

**Family Achetidae.**

**Genus Curtilla.**

*Oken, Lehrbuch der Naturgeschichte,* iii. p. 445 (1815).

*Curtilla africana.*

*Gryllotalpa africana* Palisot de Beauvois, Insectes recueillis en Afrique et en Amérique, p. 229, Orth. pl. 2 c. f. 6 (1805).

Three specimens, taken at Mokia, S.E. Ruwenzori, at a height of 3500 feet, in May 1906.

**Genus Brachytrypes.**

*Brachytrupes* Serville, Histoire naturelle des Insectes Orthoptères, p. 323 (1839).

**Brachytrypes membranaceus.**

*Gryllus membranaceus* Drury, Illustrations of Exotic Entomology, ii. pl. 43. f. 2 (1773).

Two specimens from Fort Portal, Uganda (5200 feet).

**Family Phasgonuridae.**

**Genus Gryllacris.**

Gryllacris nana.


One specimen, taken on Ruwenzori in 1906; no special information. Previously brought from Ruwenzori by Mr. Scott Elliot.

**Genus Thaumatoxenia, gen. n.**

An extremely aberrant insect, but showing some affinity with Debrona Walk. (Otiaphysa Karsch).

**Male.**—Head small; fastigium depressed, pointed. Pronotum sallated, the saddle long and narrow, the principal sulcus forming a rectangle about the middle of its length, behind which the saddle is widened to the extremity. Cerci incurved and hooked at the extremity, as long as the subgenital lamina, which is broad and concave at the extremity. Legs very long and slender; coxae with a slight spine; all the femora with short spines beneath; tibiae sulcated and spine on the upper ridges and also beneath; tegmina oval, about three times as long as broad, and rounded off at the extremity; costal and inner marginal areas very broad, the costal area with subparallel lines or partially reticulated; the inner marginal area with more regularly curved parallel lines; between them rise three parallel nervures close together—the first running to the costa at $\frac{3}{4}$ of its length, and, in one specimen, dissolving into two short branches on the left side, which soon disappear; the second running to the costa before the tip, and throwing off beneath at $\frac{1}{2}$ of its length a slender branch which presently bifurcates and runs to the costa just above the tip; the third bifurcates almost at the base, and the upper branch is much waved and runs to the margin just below the tip. After the bifurcation is a long pale space between the branches; the lower branch curves down to the inner margin, enclosing another pale space, broader than the upper one, and crossed by more distinct parallel nervules; nearer the base is a small drum, crossed by a very strong slightly oblique nerve; and the nerve bounding the lower space beneath runs very close to the inner margin, with which it soon coalesces. Wings longer than the tegmina, and rather pointed at the extremity.

**Thaumatoxenia legrei, sp. n.**

Long. corp. 21 millim.; exp. tegm. 70 millim., lat. 10 millim.; long. tib. post. 28 millim.

Testaceous; antennae darker beyond the two basal joints; pronotum above with two diverging red lines; tegmina greenish yellow (probably green in life); wings rather long and narrow, subhyaline, obtuse pointed at the tip, the upper half of which is greenish yellow.


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Family LOCUSTIDEAE.

Genus ACYDIDIUM.

Geoffroy, Histoire abrégée des insectes que se trouvent aux environs de Paris, i. p. 390 (1762)
(Tettix auct.).

ACYDIDIUM DEPRESSUM.

_Tettix depressa_ Brisout, Annales de la Société entomologique de France, sér. 2, tom. vi.
p. 424 (1848).

Five specimens of this or an allied species, labelled simply "Ruwenzori, 1906."
RUWENZORI EXPEDITION REPORTS.

9. RHYNCHOTA.

By W. L. Distant.

Received November 13, read November 17, 1908.

[Plate II.*]

This enumeration of the Rhynchota of Ruwenzori, which were collected by the Hon. Gerald Legge and Mr. A. F. R. Wollaston, includes 56 species arranged in 41 genera. Of these, 11 species and 1 genus proved to be new. It also includes species previously described from the collection made by Mr. G. F. Scott Elliot in the same locality, as well as a few procured on Ruwenzori by Sir H. H. Johnston. So far as the Rhynchotal fauna is concerned, its affinities are, in the main, distinctly West African, the South African fauna being much less represented. The absence of several families from this enumeration shows that this Rhynchotal collection is not exhaustive, though doubtless very representative.

Suborder HETEROPTERA.

Family PENTATOMIDÆ.

Subfamily SCUTELLERINÆ.

Genus SOLENOSTETHIUM.


Solenostethium sehestedi.

Telyra sehestedii Fabr. Syst. Rhyng. p. 130. 9 (1803).

Mokia, S.E. Ruwenzori, 3500 ft.—Not uncommon on the West Coast of Africa.

Genus STEGANOHERUS.


Steganocerus multifunctatus.


Fort Beni, Semliki Valley.—Distributed over the whole of Africa south of the Sahara.

* For explanation of the Plate, see p. 84.
Genus Spherochoris.


Spherochoris annulus.

*Cimex annulus* Fabr. Syst. Ent. i. 697 (1775).

Mokia, S.E. Ruwenzori, 3500 ft.—Also found in the same locality by Mr. Scott Elliot. Widely distributed over the African continent, excluding the northern and southern areas.

Spherochoris paeclius.

*Spherochoris paecilus* Dall. List Hem. i. p. 9 (1851).

Ruwenzori (G. F. Scott Elliot).—Also recorded from Nubia and Senegal.

Genus Cryptacrus.


Cryptacrus comes.


Mubuku Valley, E. Ruwenzori, 6000-13,000 ft.—Sir H. H. Johnston also brought home the species from the same locality. *C. comes* is a variable species and widely distributed in Tropical and Subtropical Africa. The unicolorous variety seems to be the dominant form on Ruwenzori.

Genus Callidea.


Callidea bohemani.


Mubuku Valley, E. Ruwenzori, 6000-7000 ft.—Widely distributed in Southern and Tropical Africa.

Genus Hotza.


Hotza subfasciata.

*Hotza subfasciata* Westw. in Hope Cat. i. p. 11 (1837).

Mubuku Valley, E. Ruwenzori, 6000-13,000 ft.—Widely distributed in Tropical and Subtropical Africa.
Subfamily Cydninæ.

Genus Cydnus.


**Cydnus rudis.**


Fort Beni, Semliki Valley.—Originally described from Gambia.

Genus Macrostythus.


**Macrocytus brunneus.**


Fort Beni, Semliki Valley.—Very widely distributed and found in the Palæarctic, Oriental, and Ethiopian regions.

Subfamily Pentatominæ.

Genus Erachtheus.


**Erachtheus lutulentus.**


Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.—Recorded from South and South-east Africa.

**Erachtheus Boris.**

_Sciocoris Boris_ Dall. Cat. Hem. i. p. 138 (1851).

Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.—Originally described from an unlocalized specimen.

**Erachtheus castaneus.**


Ruwenzori (G. F. Scott Elliot).

Genus Agabotus.


Agabotus sp.

Mubuku Valley, E. Ruwenzori, 5000–7000 ft.

A single specimen with the antennæ mutilated.
Genus Caura.


Caura leggei. (Plate II. figs. 1, 1 a.)


Head, pronotum, and scutellum metallic bluish-green; corium opaque olivaceous-green; membrane dark bronzy-green; connexivum indigo-blue; head beneath pale sanguineous, lateral margins before antennae bluish-black; sternum metallic bluish-green, a longitudinal fascia running between coxae pale sanguineous; abdomen beneath sanguineous, with a central longitudinal series of five large spots, four on each lateral area, four on each lateral margin, extreme lateral margin, a small transverse spot on each side of apical segment, and legs bluish-black; antennae black, basal joint (excluding extreme apex) sanguineous, first joint not reaching apex of head, second and third subequal in length, shorter than fourth and fifth, which are also subequal, fourth distinctly dilated; rostrum with first joint sanguineous and reaching base of head, remaining joints black, second joint about reaching intermediate coxae, third joint short, just passing intermediate coxae, apical joint slightly passing posterior coxae; head, pronotum, and scutellum thickly punctate and slightly rugulose; corium very finely and indistinctly punctate, more prominently so on claval and costal areas; connexivum thickly finely granulose.

Long. 12 mm. Exp. pronot. angl. 8 mm.

Hab. Semliki Valley.

Var.—Above somewhat paler green; basal joint of antennae black, concolorous; head beneath blackish, its base ochraceous, all the sanguineous coloration beneath replaced by ochraceous.

Hab. East Africa; Masaba (Coll. Dist.).

Genus Aspavia.


Aspavia armigera.


Ruwenzori (G. F. Scott Elliot).—An abundant species in West Africa.

Genus Carbula.


Carbula bicolor. (Plate II. figs. 4, 4 a.)


Head, pronotum, scutellum, and corium fuscous-brown; anterior lateral margins of pronotum, basal lateral margins of corium, and a somewhat large spot near each basal
angle of scutellum pale, levigate, shining ochraceous; membrane bronzy-brown with the veins darker; connexivum brownish-ochraceous, its inner margin and the posterior segmental margins black; body beneath and legs ochraceous, abdomen with a waved castaneous line on each lateral area; antennae with the first joint fuscos-brown, remaining joints pale ochraceous, basal joint not quite reaching apex of head, second, third, and fourth joints almost subequal in length, fifth a little the longest; rostrum just passing the posterior coxae, first joint reaching base of head, second reaching intermediate coxae and about as long as third and fourth together; head longer than broad, thickly coarsely punctate, apex of the central lobe a little prominent; pronotum broader than long, thickly coarsely punctate, the posterior angles strongly, robustly, horizontally produced, their apices subacute and very slightly recurved, a little notched behind; scutellum coarsely punctate and wrinkled, shorter than corium, basal angular pale spots subglobose; corium more finely punctate; membrane reaching apex of abdomen.

Long. 9 mm. Exp. pronot. angl. 7 mm.


**Carbula fuscata.** (Plate II. figs. 8, 8 a.)


Dark fuscos-brown, apical area of head and produced pronotal angles more piceous; antennae, lateral crenulate margins of pronotum, and a large globose spot near each basal angle of scutellum, ochraceous; membrane fuscos-grey, veins darker; connexivum dull ochraceous, inwardly black; body beneath paler than above and darkly punctate; legs dull ochraceous; head thickly coarsely punctate, apices of lateral lobes outwardly rounded and widely separated in front of central lobe; antennae with second and fourth joints subequal in length, first joint not reaching apex of head, fifth joint mutilated in type; pronotum coarsely punctate and granulose, lateral angles robustly, spinously, horizontally produced; scutellum wrinkled and punctate; corium somewhat opaque and more sparingly punctate; rostrum with first joint reaching base of head, second longest and not quite reaching intermediate coxae, third and fourth shortest and subequal, fourth slightly passing posterior coxae.

Long. 7 mm. Exp. pronot. angl. 6 mm.


**Genus Awemba.**


Somewhat flatly broad and subovate; head narrowing anteriorly, lateral lobes distinctly longer than central lobe, their apices somewhat widely separated; antennae five-jointed, basal joint not quite reaching apex of head, second and fourth subequal in length, fifth longest; rostrum reaching posterior coxae, first joint reaching base of head, second longest and not quite reaching intermediate coxae, third and fourth joints short and
subequal in length; pronotum much broader than long, lateral angles strongly, robustly, spinously produced, anterior lateral margins coarsely serrate, posterior margin truncate before scutellum, lateral margins concavely sinuate, anterior margin excavated for reception of head; scutellum about as long as broad at base, its lateral margins oblique to near middle and then more suddenly narrowed, its apex rounded; corium longer than scutellum, not covering connexivum, which is widely exposed; membrane somewhat short, about reaching abdominal apex; abdomen beneath convex, apical angle of sixth abdominal segment acuminate; legs simple, not spined.

This genus in general appearance and character is somewhat allied to Carbula Stäl, but differs in having not only the lateral lobes of the head longer than the central, but also the lateral margins of the pronotum serrate.

**Awemba typica.** (Plate II. figs. 6, 6 a.)


Pale luteous and more or less thickly punctate, punctures black towards base of head, sparsely scattered near anterior margin of pronotum, forming a distinct broad basal fascia between lateral pronotal angles, sparsely distributed over corium and thick and close at apex of scutellum; antennae with the fourth and fifth joints darker or more castaneous; pronotum very coarsely punctate, lateral angles robustly, spinously produced; scutellum coarsely wrinkled and punctate; corium somewhat opaque and finely sparsely punctate; abdomen beneath with spiracles black, sometimes with lateral margins (broadly) and a central longitudinal fascia (narrowly) darker; other structural characters as in generic diagnosis.

Long. 8½ to 9 mm. Exp. pronot. angl. 7 mm.


**Genus Agonoscelis.**


**Agonoscelis versicolor.**

*Cimex versicolor* Fabr. Ent. Syst. iv. p. 120. 155 (1794).

*Hab.* Mubuku Valley, E. Ruwenzori, 5000–13,000 ft.—Widely distributed in Tropical and Subtropical Africa.

**Genus Nezara.**


**Nezara viridula.**


*Hab.* Mubuku Valley, E. Ruwenzori, 5000–7000 ft.—Almost universally distributed; found in all the principal zoo-geographical regions.
Subfamily Asopinæ.

Genus Hoploxys.

*Hoploxys* Dall. List Hem. i. p. 102 (1851).

**Hoploxys ceruleus**.

*Hoploxys ceruleus* Dall. List Hem. i. p. 103 (1851).

_Hab._ Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.—Also recorded from the Congo and Gaboon.

Subfamily Tessaratominæ.

Genus Tessaratoma.


**Tessaratoma hornimani**.


Semliki Valley.—Originally described from West Africa.

Subfamily Dinidorinæ.

Genus Cyclopelta.


**Cyclopelta tristis**.


Genus Aspongopus.


**Aspongopus xanthopterus**.


Semliki Valley.—Originally described from the Gaboon.

**Aspongopus nigroviolaceus**.


Mubuku Valley, E. Ruwenzori, 6000–13,000 ft. Taken by *Sir H. H. Johnston* and Mr. Scott Elliot in the same locality.—Found in the Congo State.

Aspongopus alternatus. (Plate II. figs. 3, 3a.)


Body above, antennae, rostrum, head beneath, sternum, and legs black; connexivum, abdomen beneath, and the femora luteous; anal abdominal segment black; head with the lateral lobes foliaceous and produced in front of the central lobe, their apices divided; antennae with the basal joint shortest, second a little shorter than third, fourth and fifth longest and about subequal in length; rostrum passing anterior but not quite reaching intermediate coxae, first joint slightly extending beyond base of head, second a little longer than third and fourth together; pronotum, scutellum, and corium rugose, the first more finely so and coarsely punctate, the second transversely rugose and coarsely, sparingly punctate, corium more irregularly rugose and sparingly coarsely punctate; membrane more piceous than black; tibiae sulcate; tarsi ochraceously pilose.

Long. 13½ to 14½ mm.

Hab. Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.

Allied to A. nigroviolaceus Pal. Beauv., but differs in having the second joint of the antennae shorter than the third, and in the colour of the under surface of the abdomen &c.

Aspongopus lividus.


Ruwenzori (Sir H. H. Johnston).—Originally described from Nyasaland.

Family Coreidæ.
Subfamily Coreinæ.
Genus Holopterna.

Holopterna Stål, En. Hem. iii. p. 41 (1873).

Holopterna wollastoni. (Plate II. figs. 14, 14a.)


Head and scutellum black; pronotum and corium piceous-black, the latter with a large ochraceous basal spot; antennae piceous-black, the apical joint pale ochraceous, with its extreme base blackish; membrane dark bronzy; connexivum black and more or less ochraceously spotted at segmental incisures; body beneath and legs black; antennae with basal joint about as long as pronotum, longer than second joint, second, third, and fourth joints almost subequal in length; rostrum reaching intermediate coxae, first joint slightly passing base of head, second extending between anterior coxae,
third shortest, just passing anterior coxae; head excavated between apices of lateral lobes; pronotum much shorter than breadth between lateral angles, which are strongly produced and moderately upwardly and apically slightly recurved, lateral margins of produced angles crenulate; corium somewhat finely punctate; posterior tibiae in $\varpi$ spined beneath near apex, posterior femora in $\varpi$ a little curved; second ventral segment distinctly tuberculous on each lateral area in $\varpi$, in $\delta$ less prominently so.

Long., $\varpi$ 22, $\delta$ 24 to 27 mm.

Hab. Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.

Holopterna affinis. (Plate II. figs. 15, 15 a.)


Head, pronotum, and scutellum black; corium piceous; membrane dark bronzy; body beneath and legs black; tarsi piceous-brown; antennæ ochraceous, the whole of the first joint (excluding extreme apex), a broad subcentral annulation to second joint, and a similar annulation to third joint (which, however, extends nearer apex), black, first joint a little longer than pronotum and only slightly longer than second joint, third shortest, fourth about subequal to first; rostrum about reaching intermediate coxae, first joint almost reaching base of head, second reaching anterior coxae, third shortest and just passing anterior coxae, fourth almost reaching intermediate coxae; pronotum rugulose, lateral angles produced upwardly and forwardly, strongly dentate on each edge, their apices acute; second and third ventral segments in $\varpi$ longly tuberculate on each lateral area; posterior tibiae in $\varpi$ flattened and dilated and spined beneath near apex, posterior femora incrassate, moderately curved, finely crenulate beneath.

Long., $\varpi$ 22 mm. Exp. pronot. angl. 10 mm.

Hab. Mokia, S.E. Ruwenzori, 3500 ft.

Allied to \textit{H. valga} Linn. and \textit{H. alata} Westw., but separated from both by the long, acute, and anteriorly produced pronotal angles.

Genus Plectropoda.

\textit{Plectrocnemia} Stål, En. Hem. iii. p. 42 (1873), \textit{nom. proocc}.
\textit{Plectrocnemia} Stål, En. Hem. iii. p. 42 (1873), \textit{nom. proocc}.


Plectropoda bicolor. (Plate II. figs. 13, 13 a.)


Mubuku Valley, E. Ruwenzori, 3500 ft.; Ruwenzori (G. F. Scott Elliot) — Originally described from Usambara.
ZOOLOGICAL RESULTS OF THE RUWENZORI EXPEDITION.

Genus Mygdonia.


Mygdonia montana. (Plate II. figs. 16, 16 a.)


♀. Piceous-brown; corium shortly, palely, sparingly pilose; extreme apex of scutellum ochraceous; membrane dark bronzy; antennae pale castaneous, first and fourth joints subequal in length, second slightly shorter than first, longer than third; rostrum reaching intermediate coxae, first joint extending to base of head, second a little longer than third, which just passes anterior coxae; pronotum coarsely granulose, lateral angles moderately, roundly, a little upwardly produced, their margins coarsely crenulate, anterior lateral margins also crenulate or dentate; scutellum transversely wrinkled; corium finely and indistinctly punctate; posterior femora strongly incrassate in ♀, shortly, centrally, tuberculously produced beneath and shortly spined beneath at apex, in ♀ only moderately thickened and spined beneath at apex, posterior tibiae in ♀ moderately dilated but not toothed.

Long., ♀ 16, ♂ 20 mm. Exp. pronot. angl., ♂ 6, ♀ 7½ mm.

Hab. Mubuku Valley, E. Ruwenzori, 6000-7000 ft.

Allied to M. antinorii Leth., but the pronotal angles are much less developed and more laterally and less anteriorly produced, their apices also being more rounded and obtuse.

Genus Anoplocnemis.


Anoplocnemis curvipes.


Mokia, Ruwenzori, 3500 ft.—Distributed over the whole of Tropical and Subtropical Africa.

Anoplocnemis signata. (Plate II. figs. 17, 17 a.)


Mokia, S.E. Ruwenzori, 3500 ft.; Ruwenzori (Sir H. H. Johnston).

Anoplocnemis tristator.


Ruwenzori (Sir H. H. Johnston).—Hitherto regarded as a West-African species.
Genus Plinachtus.


**Plinachtus fungens.**


*Var.*—The two lateral pale lines on head extend only to eyes and not to base of antennae; antennae nearly totally black.


Examples of both the typical and varietal forms are contained in the collection.

**Plinachtus spinosus.**


Mubuku Valley, E. Ruwenzori, 6000–7000 ft.—Also found in South Africa.

Genus Cletus.


**Cletus sp.**

A single undetermined specimen.

Mubuku Valley, Ruwenzori, 6000–13,000 ft.

Genus Acanthomia.

*Acanthomia* Stål, En. Hem. iii. p. 82 (1873).

**Acanthomia insignis.** (Plate II. fig. 7.)


Head, pronotum, and scutellum piceous; head with two central greyish lines commencing somewhat near together at base and extending to bases of antennae, a similar line on each lateral margin passing inner margins of eyes; basal joint of antennae castaneous, about as long as pronotum, much longer than second joint, which is ochraceous, remaining joints mutilated in type; pronotum somewhat greyishly piceous, with three discal longitudinal greyish lines, finely greyishly pilose, and with a few scattered very profound dark punctures, lateral angles horizontally spinously produced, their apices slender and smooth, shining black, at about middle of anterior lateral margin a shorter suberect black spine; scutellum moderately raised with a central greyish line; corium ochraceous, two longitudinal series of black punctures in clavus, a black line before clavus, which is apically deflected to apical margin, and a submarginal black line which does not reach base; membrane greyish, with the veins piceous; connexivum piceous, marginal spines black and posteriorly
directed; body beneath and legs chocolate-brown, tibiae and tarsi ochraceous, bases of tibiae black; rostrum with basal joint just passing eyes, second joint reaching anterior coxae, and about equal in length to fourth joint, third a little shorter than first; prosternum palely pilose and coarsely punctate; abdomen with oblique greyish lines on each lateral area.

Long. 9 mm.

*Hab.* Ruwenzori, 5000–6000 ft. (*G. F. Scott Elliot*). A strikingly marked species described from a single and somewhat imperfect specimen.

Subfamily *Alydinae*.

Genus *Riptortus*.


*Riptortus tenuicornis*.

*Alydus tenuicornis* Dall. List Hem. ii. p. 471 (1852).

Ruwenzori (*G. F. Scott Elliot*).—Originally described from Sierra Leone.

Subfamily *Corizinae*.

Genus *Serinetha*.


*Serinetha hæmatica*.


Mubuku Valley, E. Ruwenzori, 5000–7000 ft.—Found also in South and West Africa, Madagascar, and Mauritius.

Family *Pyrrhocoridae*.

Subfamily *Larginae*.

Genus *Physopelta*.


*Physopelta melanoptera*.


Mubuku Valley, E. Ruwenzori, 5000–7000 ft.—Originally described from West Africa.
Genus *Myrmoplasta*.


**Myrmoplasta potteri.**


Salt Lake, S.E. of Ruwenzori (*G. F. Scott Elliot*).—Originally described from Abyssinia.

Subfamily *Pyrrhocorinae*.

Genus *Cenœus*.


*Cenœus semiflavus*. (Plate II. fig. 10.)


Mubuku Valley, E. Ruwenzori, 5000-7000 ft.—Mr. Scott Elliot also brought the species from Ruwenzori, the type being one of his specimens.

Genus *Dysdercus*.


**Dysdercus nigrofasciatus.**

*Dysdercus nigrofasciatus* Stål, Öfvs. Vet.-Ak. Förh. 1855, p. 36.

Mubuku Valley, E. Ruwenzori, 5000-7000 ft.—Recorded from both South and West Africa.

**Dysdercus pretiosus.** (Plate II. fig. 11.)


Mubuku Valley, E. Ruwenzori, 5000-7000 ft.—Originally described from Ruwenzori specimens taken by Mr. Scott Elliot.

Family *Reduviidae*.

Subfamily *Ectophasidinae*.

Genus *Santosia*.

*Santosia* Stål, Öfvs. Vet.-Ak. Förh. 1858, p. 442.

**Santosia maculata.**


Mubuku Valley, E. Ruwenzori, 5000-7000 ft.—Also found on the West Coast of Africa.
Subfamily Harpactorinæ.

Genus Harpactor.


Harpactor ornatellus. (Plate II. figs. 12, 12 a.)


Ruwenzori (G. F. Scott Elliot).

Family Nepiæ.

Genus Laccotrephes.


Laccotrephes ater.

Nepa atra Linn. Syst. Nat. ed. 12, i. 2, p. 713. 4 (1767).

Ruwenzori (G. F. Scott Elliot).

Genus Ranatra.


Ranatra fuscoannulata. (Plate II. fig. 9.)


Ruwenzori (G. F. Scott Elliot).

Suborder Homoptera.

Family Cicadidae.

Subfamily Cicadinae.

Genus Platycleura.


Platycleura divisa.


Mubuku Valley, E. Ruwenzori, 5000–7000 ft.—Not uncommon in South Africa.

Platycleura wahlbergi.


Mokia, S.E. Ruwenzori, 3500 ft.—Also found in South Africa.
Genus **Ugada**.


**Ugada grandicollis.**


**Family Cercopideae.**

**Subfamily Aphrophorinae.**

Genus **Ptyelus**.

*Ptyelus* St.-Farg. & Serv. Enc. Méth. x. p. 608 (1825).

**Ptyelus flavescens.**


Ruwenzori (*G. F. Scott Elliot*).—Widely distributed in Tropical and Subtropical Africa.

**Ptyelus grossus.**


Var. c, Stål, loc. cit. p. 72.

Mubuku Valley, E. Ruwenzori, 6000-13,000 ft.; Fort Beni, Semliki Valley.—Widely distributed in Tropical and Subtropical Africa.

**Ptyelus niveus.** (Plate II. figs. 2, 2 a.)


Body and legs creamy ochraceous; pronotum, scutellum, and abdomen above more or less suffused with stramineous; basal antenniferous tubercle, a longitudinal spot near bases of anterior tibiae, anterior and intermediate tarsi, apical fringe of posterior tibiae and claws of posterior tarsi, black; base of apical joint of intermediate tarsi creamy ochraceous; tegmina silvery white, opaque, base of costal margin and a short median discal longitudinal line, black, reticulate veins at apical area piceous; vertex along median line half as long as breadth between eyes, a distinct impression enclosing a small lunate space a little before apex; face a little centrally longitudinally flattened, laterally transversely striate; pronotum anteriorly convexly rounded, posteriorly strongly

concavely excavate before scutellum, which is longer than broad; posterior tibiae with two spines, that nearer base shorter and somewhat indistinct.

Long. excl. tegm. 11 mm. Exp. tegm. 30 mm.
Hab. Mubuku Valley, E. Ruwenzori. 6000–13,000 ft.

Genus Lepyronia.


*Lepyronia* *æthiops*. (Plate II. figs. 5, 5 a.)


Pale stramineous; two median longitudinal fasciae extending through the surface of head, pronotum, and scutellum, in latter occupying the lateral angles, lateral margins of head (not reaching apex), lateral margins of pronotum, basal and inner margins of clavus, basal costal margin of tegmina, a costal spot behind middle, two oblique inner fasciae on apical area, a spot on each basal side of head beneath between the face and eyes, a spot on each side of base of clypeus, a longitudinal fascia on each side of sternum, and abdomen beneath, black; legs ochraceous; head shorter than pronotum, ocelli a little less removed from each other than from eyes; tegmina distinctly thickly punctate; posterior tibiae with two strong spines.

Long. 6 mm.

Hab. Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.
PLATE II.

Figs. 1, 1 a. Caura leggei Dist., p. 70.
2, 2 a. Ptyelus niveus Dist., p. 81.
3, 3 a. Aspongopus alternatus Dist., p. 74.
4, 4 a. Carbula bicolor Dist., p. 70.
5, 5 a. Lepyronia ethiops Dist., p. 82.
6, 6 a. Awemba typica Dist., p. 72.
7. Acanthomia insignis Dist., p. 77.
8, 8 a. Carbula fuscata Dist., p. 71.
9. Ranatra fuscoannulata Dist., p. 80.
10. Ceneus semiflavus Dist., p. 79.
11. Dysdercus pretiosus Dist., p. 79.
12, 12 a. Harpactor ornatus Dist., p. 80.
13, 13 a. Plectropeda bicolor Hagl., p. 75.
14, 14 a. Holopterna wollastoni Dist., p. 74.
15, 15 a. , affinis Dist., p. 75.
16, 16 a. Mygdonia montana Dist., p. 76.
17, 17 a. Anoplocnemis signata Dist., p. 76.
RUWENZORI EXPEDITION REPORTS.

10. DIPTERA.

By Ernest E. Austen, F.Z.S.

Received November 13, read November 17, 1908.

[Plate III.*]

The Diptera brought home by the Ruwenzori Expedition were not numerous, consisting of only eighteen specimens, belonging to six families and thirteen species. Seeing that the Diptera of Central Africa have as yet scarcely been collected at all, it is not surprising to find that a large proportion (no fewer than eight, or 61.5 per cent.) of these species prove to be new. One of the new species was recently described by Miss Gertrude Ricardo, but descriptions of the remaining seven will be found in the following pages.

In order to make the present contribution as complete as possible a few Diptera obtained by Mr. G. F. Scott Elliot during a previous visit to Ruwenzori have been studied in conjunction with those captured by the Ruwenzori Expedition. Mr. Scott Elliot's material belongs to six species, five of which are apparently new; and, since three of the latter are additional to the species brought back by the Ruwenzori Expedition, the total number of new species described below is ten.

The Diptera procured by the Ruwenzori Expedition were collected by the Hon. Gerald Legge and Mr. A. F. R. Wollaston.

Family Tabanidae.

Subfamily Tabaninae.

Hematopota Mg.

* For explanation of the Plate, see p. 102.
Tabanus Linn.


Tabanus fasciatus Fabr.

Systema Entomologiae, 1775, p. 788.


Tabanus ruwenzorii Ricardo. (Plate III. fig. 1.)


Family Bombyliidae.

Subfamily Bombylinae.

Bombylius Linn.


Bombylius sp. (No. 1)


Bombylius sp. (No. 2)


The specimens of both of these species of Bombylius are so much damaged as to render it hopeless either to identify or describe them.

Family Asilidae.

Subfamily Laphriinae.

Proagonistes * Lw.


* This genus, founded for Proagonistes validus Lw., from Caffraria, was placed among the Asilinae by its author, though the latter at the same time suggested that its proper place might be among the Laphriinae, it being impossible to decide the question with certainty, since the third joint of the antenna was missing in the case of Loew’s type. The specimens belonging to the genus in the British Museum (Natural History) are for the most part in better condition, and show that Proagonistes should be assigned to the Laphriinae. The following species, referred to by Loew in his original description, also belong to Proagonistes: Laphria rufibarbis Fabr. (called “rufipes” by Loew, Öfv. af K. Vetensk.-Akad. Förhandl. 1857, p. 367), W. Africa; L. ufens Walk., Sierra Leone; and L. praeceps Walk., Natal. Besides these, the Museum collection includes two or three specimens, apparently belonging to species of this genus at present undescribed, and among others an example of a very large species, with exceedingly long hind legs, from Madagascar.
Proagonistes prædo, sp. n.  (Plate III. fig. 2.)

♂.—Length (1 specimen) 27 mm.; width of head 6·2 mm.; width of front at vertex 1·6 mm.; length of wing 24 mm.

Black; dorsum of thorax in type chiefly dull, scutellum and dorsum of abdomen moderately shining and purplish-black; dorsum of thorax with a ferruginous* stripe along each side, including humeral callus and extending beyond suture; wings dark brown with a purplish tinge, central portion of second, third, fourth, and fifth posterior cells, and of axillary cell, and upper margin of second basal cell paler; upper surface of front and middle femora and distal third (below not more than distal fourth) of hind femora black, under side of front and middle femora and proximal two-thirds or three-fourths of hind femora burnt-sienna coloured; tibiae orange-rufous, tarsi, especially front pair, somewhat darker, hind tibiae with a dark brown spot above at extreme tips, last three joints of front and middle tarsi each with a small black spot below.

Head shining black, with a roughly semicircular ferruginous spot on each side of the prominent facial tubercle, which bears a conspicuous tuft of long and coarse orange-rufous hair; front, sides of face, and occipital region clothed with similarly coloured hair, beard yellowish white; anterior ocellus in case of type small but distinct; first and second joints of antennae orange-rufous, clothed with similarly coloured hair and bristles, second joint also with some black hairs, third joint mummy-brown, elongate ovate when viewed from the side; palpi shining black, clothed at tips with orange-rufous hair; tip of proboscis clothed above with chrome-yellow hair. Thorax: hairs and bristles on dorsum and scutellum black, lateral ferruginous stripes clothed with orange-rufous hair, the long bristles on the posterior two-thirds of each stripe also orange-rufous; pleurae clothed mainly with black hairs, but with a few yellowish-white hairs above each coxa. Abdomen clothed above with short black hairs, on sides and below with longer black hair; genitalia burnt-sienna coloured, clothed at tips with orange-buff hair. Wings: second submarginal cell commencing just beyond level of end of discal cell, long, and its proximal two-thirds narrow. Halteres ochraceous-buff. Legs: front and middle coxae clothed with yellowish-white, hind coxae with black hairs; front and middle femora clothed above with black hairs, below and on each side with long and fine hairs, tending to curl at tips, and for most part yellowish on basal, black on distal half of femora; tips of middle and hind femora above and of front femora on each side clothed with orange-rufous hair; spines or stout bristles towards tips of middle and hind femora ferruginous; hind femora clothed mainly with black hair, long and fine on sides and below; hair on tibiae and tarsi ochraceous, spines ferruginous; first joint of hind tarsi long and not incrassate; basal half or basal third of claws ferruginous, remainder black.


* For names and illustrations of colours, see Ridgway, 'A Nomenclature of Colors for Naturalists' (Boston: Little, Brown, & Company, 1888).
The lateral ferruginous stripes on the dorsum of the thorax will suffice to distinguish *P. praesto* from the other species of the genus previously described.

**Family Syrphidae.**

**Subfamily Syrphinae.**

*Syrrhus* Fabricius, Systema Entomologiae, 1775, p. 762.

*Syrrhus adligatus* Wied. (Plate III. fig. 3.)

*Syrrhus adligatus* Wiedemann, Analecta Entomologiae, 1824, p. 35; Aussereuropäische zweifügige Insekten, ii. 1830, p. 122.

2 ♂♂. Ruwenzori, 6000–8000 ft. (*G. F. Scott Elliot*).

*Asarcina* Macq.

*Asarcina* Macquart, Mémoires de la Société royale des Sciences, de l'Agriculture et des Arts, de Lille, 1842, p. 137; *Diptères Exotiques*, ii. 2, 1842, p. 77.

*Asarcina amenas*, sp. n. (Plate III. fig. 4.)

♂, ♀.—Length (2 specimens) 11-6 mm. (♂), 12 mm. (♀); width of head 3-6 mm. (♂), 3-8 mm. (♀); width of front at vertex in ♀ 0-5 mm.; length of wing 10-5 mm. (♂), 11-4 mm. (♀).

**Face conical.** Agreeing with *A. rostrata* Wied. in general coloration, but black transverse bands on abdomen deeper; distinguished from both *A. rostrata* Wied. and *A. eremophila* Lw. by having no median black stripe on face; a dark brown semi-circular mark above front edge of buccal cavity; third joint of *antenna* dark brown, except lower basal angle; wings longer than in *A. rostrata* Wied., moderately infuscated, colour not intensified at certain spots, first and second costal cells not darker than remainder of surface.

**Head** saffron-yellow, upper half of front in ♀ bronze-black; vertical and frontal triangles in ♂ and front in ♀ clothed with black hair, face and occipital region clothed with chrome-yellow hair, basi-occipital margin clothed with silvery hair; first joint of *antenna* ochraceous-buff, second joint cinnamon-rufous, both joints stout, clothed with black hair, approximately equal in length in ♂, first joint in ♀ about one-third longer than second; arista clove-brown. **Thorax**: dorsum, except lateral stripe and scutellum, shining bronze-black, lateral stripe and scutellum gambog-yellow, scutellum clothed with black, remainder of thorax with yellow hair; pleura and pectus yellowish pollinose on a bronze-black ground, some yellow patches clothed with long chrome-yellow hair beneath base of wing. **Abdomen** saffron-yellow; dorsum
with four fairly deep transverse black bands, each of middle two of which is in \( \sigma \) narrowly connected with foregoing band on each side; these bands occupy hinder portion of second and three following segments, and each of first three bands also encroaches slightly on following segment; there is also a semicircular black median area on first segment, posterior margin of which extends over on to second segment, on which it is connected by a median black longitudinal mark with first black transverse band; in \( \varphi \), yellow band on third segment is slightly constricted in middle; dorsum of abdomen, except basal angles, clothed with black hair, basal angles clothed with chrome-yellow hair; venter yellow and clothed with pale chrome-yellow hair, lateral extremities of second and third dorsal black bands more or less visible; genitalia of \( \sigma \) orange-buff, pollinose, and clothed with pale chrome-yellow hair. Wings brownish, stigma russet; bend of third longitudinal vein above first posterior cell shallow but fairly sharp. Halteres yellow. Legs orange-buff, tarsi dark brown, hind femora and tibiae in \( \sigma \) brownish.


Asarcina punctifrons, sp. n. (Plate III. fig. 5.)

\( \sigma \).—Length (1 specimen) 12·5 mm.; width of head 4 mm.; length of wing 12·5 mm.

Face conical. Agreeing with A. rostrata Wied. in general coloration, but black transverse bands on abdomen deeper; a relatively large clove-brown median spot on frontal triangle above base of antennæ; facial tubercle in type reddish brown, but (at any rate in type) no distinct median black stripe on face, and no dark brown semicircular mark above front edge of buccal cavity; first and second joints of antennæ stout, first joint barely one-fourth longer than second, lower margin of third joint ochraceous-rufous; second segment of abdomen with a very narrow median black longitudinal stripe; yellow bands on third and following segments not constricted in middle; wings strongly infuscated, the colour somewhat intensified at certain spots, such as distal extremity of second longitudinal vein; first and second costal cells darker than remainder of wing except stigma.

Head deep saffron-yellow, frontal triangle clothed with black hair, face with saffron-yellow hair; occipital margin clothed above with pale yellow, on sides and below with silvery hair; first and second joints of antennæ cinnamon-rufous, third joint, except extreme base and lower margin, dark brown, arista dark brown. Thorax as in A. amena Austen. Abdomen also as in foregoing species, except that median black stripe on dorsum of second segment is longer and more attenuated, while (at least in case of type) yellow band on third segment shows no trace of median constriction. Wings bistre, with lighter and darker regions; depression of third longitudinal vein above first posterior cell merely a very gentle undulation rather than a bend. Halteres

yellow. *Legs* tawny, hind tibiae brownish, tarsi dark brown, hind femora with a dark brown streak on outer side, broader on basal half.

*Hab.* Ruwenzori, 7000–8000 ft. (*G. F. Scott Elliot*).

*Asarcina punctifrons* is distinguished from *A. rostrata* Wied. and *A. eremophila* Lw. *inter alia* by the shorter and stouter first joint of the antennae, and by the first and second black transverse bands on the abdomen being entirely parallel, and not in the least expanded in the middle; from *A. amona* Austen, the new species may at once be distinguished by the strongly infuscated wings and the presence of the dark frontal spot.

**Subfamily Eristalineae.**

*Senaspis* Macq.

*Senaspis* Macquart, Mémoires de la Société Nationale des Sciences, de l'Agriculture et des Arts, de Lille, 1849 (Lille : 1850), p. 437; *Diptères Exotiques, 4*° Supplément, 1850, p. 133.


*Senaspis asacus* Walk. (Plate III. fig. 6.)


(?) *Eristalis latevittatus* Bigot, 'Archives Entomologiques,' ii. 1858, p. 365, pl. x. fig. 9.

1 ♀, between Salt Lake and Wawamba Country, Ruwenzori district (*G. F. Scott Elliot*). Specimens of this species from Busoga, Uganda, March (Dr. Aubrey Hodges), and Entebbe, Uganda, June, "taken in Laboratory" (Captain E. D. W. Greig, I.M.S.), are also in the Museum collection, which includes other examples from Ashanti and Sierra Leone, showing that *S. asacus* has a very wide distribution in Tropical Africa. If *Eristalis latevittatus* Big. be really a synonym of *S. asacus*, the species also occurs in Gaboon.

*Senaspis elliottii*, sp. n. (Plate III. fig. 7.)

♂, ♀.—Length, ♂ (1 specimen) 15 mm., ♀ (4 specimens) 14 to 16 mm.; width of head, ♂ 5, ♀ 5.2 to 5.6 mm.; width of front at vertex in ♀ 1 mm. to just over 1 mm.; length of wing, ♂ 11.5, ♀ 12.5 to 13.5 mm.

Black; abdomen shining black, dorsum of thorax covered with light yellowish-grey pollen and thickly clothed with similarly coloured hair (in a ♀ from E. Africa the dorsum of the thorax is deeper—buff-yellow); *scutellum* buff-yellow; wings deep purplish-brown from base to bottom of bend in third longitudinal vein above first posterior cell, distal extremity and hind margin more or less distinctly paler, though first posterior cell sometimes infuscated, proximal two-thirds of both basal cells and
proximal half of anal cell usually orange-buff, discal cell and distal extremities of second basal and anal cells often with darker centres enclosing a paler area; alula hyaline, except base which is slightly infuscated; hind tibia fringed with black hair on inner and outer side, fringe on inner margin especially conspicuous.

Head black, vertical and frontal triangles in ♂ and front in ♀ clothed with black hair, frontal triangle in ♂ shining, front in ♀ with a dull clove-brown transverse band above middle, elsewhere shining; face light greyish or silvery pollinose, tubercle and area immediately above it shining black; occipital region clothed with yellowish hair, with a more or less conspicuous fringe of blackish hair above in ♀; antennæ clove-brown or black, arista cinnamon. Thorax: pleure and pectus clothed with black hair; scutellum clothed with hair of same colour as that covering remainder of dorsum. Abdomen: dorsum clothed with minute, appressed, black hairs, sides clothed with longer black hair; dorsum of second segment with a larger or smaller dull black median area, resting on front margin, and confined to anterior third; ♂ genitalia yellowish-grey pollinose, sparsely clothed with short yellowish hairs. Wings: distal margin of darker area straight, forming a transverse line, majority of veins within darker area usually bordered with orange-buff. Squama buff-yellow, fringed with similarly coloured hair. Legs entirely black, clothed with black hair.

Hab. Ruwenzori and East Africa Protectorate: type of ♂ from Ruwenzori, 7000-8000 ft. (G. F. Scott Elliot); type of ♀ taken between Salt Lake and Wawambo Country, Ruwenzori district (G. F. Scott Elliot); other specimens from Ruwenzori, 6000–8000 ft. (G. F. Scott Elliot); Mubuku Valley, E. Ruwenzori, 6000–13,000 ft., 1st March; and Makumbu, East Africa Protectorate, Feb. and March (C. S. Betton).

I have much pleasure in associating with this fine species the name of its discoverer, Mr. G. H. Scott Elliot.

In addition to those already mentioned, the following African species also belong to the genus Senaspi:—S. flaviceps Macq. (the type of the genus), Merodon umbrifer Walk. (List Spec. Dipt. Ins. in Coll. Brit. Mus. iii. 1849, p. 601.—Sierra Leone; closely allied to S. asacns Walk.), Dolichomerus nigritus Big. (Madagascar), and Plagiocera hamorrhhoa Gerst. (Baron Carl Claus von der Decken’s Reisen in Ost-Afrika, Bd. iii. Abth. i. 1869, p. 391, Taf. xvi. fig. 6.—Central and East Africa).

Megaspis Macq.

Megaspis Macquart, Mémoires de la Société royale des Sciences, de l’Agriculture et des Arts, de Lille, 1841, p. 87; Diptères Exotiques, t. ii. 2, 1842, p. 27.

Megaspis bulligera, sp. n. (Plate III. fig. 8.)

♂, ♀.—Length, ♂ (5 specimens) 10·25 to 11·75 mm., ♀ (5 specimens) 8·8 to 12 mm.; width of head, ♂ 4·8 to 5·4, ♀ 3·8 to 5 mm.; width of front at vertex in ♀ 1·6 to 2 mm.; length of wing, ♂ 9 to 10, ♀ 8 to 10 mm.

General coloration of body mummy-brown, greater portion of abdomen often clove-
brown or black, second, third, and fourth abdominal segments, in middle line above, each with a conspicuous, black, rounded tubercle (that on second segment most prominent), shining in centre but dull black on margin in specimens in good condition; wings with a light brownish tinge, and with a narrow and somewhat oblique dark brown band, extending from costa, at distal extremity of mediastinal vein, to upper distal angle of second basal cell.

Head black, covered with yellowish pollen, and clothed with short hair ranging in colour from straw-yellow to light buff-yellow; front in ♀ broad, an area on vertical region surrounding ocelli, and sometimes extending forwards to middle, covered with dark brown pollen and clothed with dark brown or black hair; face with narrow shining black tubercle in middle line below depression beneath antennae, which are clove-brown, second joint sometimes lighter (chestnut); *arista* ochraceous-buff, clothed on basal half with short hairs, distal extremity bare. *Thorax*: dorsum, including scutellum, thickly clothed with short tawny or raw-sienna-coloured hair, often forming a conspicuous tuft in front of base of wing on each side; *scutellum* with a dull cinnamon-rufous tinge, with an ill-defined darker transverse band near front margin. *Abdomen* clothed with short maize-yellow hair (straw-yellow on first segment, which is shining black); second segment dull cinnamon-rufous, with a broad subtriangular black mark resting on hind margin, with its apex, which does not always reach front margin, including the median tubercle, and its sides curving outwards to meet the sides of the segment about halfway between the front and hind margins; third and fourth segments mainly black, but a dull cinnamon-rufous transverse mark, with its posterior margin concave, usually visible next front margin of each segment on either side of middle line; these marks may be indistinguishable on fourth segment, hind border of which is sometimes cinnamon-rufous. *Wings*: extreme base dark brown; *alulae* brownish at base; in certain specimens bend of third longitudinal vein into first posterior cell has a small appendix beneath. *Squamae* dark sepia, fringes brownish. *Legs*: all tarsi ochraceous or ochraceous-rufous; femora more or less black (buff or ochraceous-buff at extreme tips, more or less ochraceous or ochraceous-rufous at base), middle femora sometimes largely ochraceous, usual patch of closely-set, minute, black bristles clearly visible at base of each femur on under side, hind femora somewhat swollen; front tibiae cream-buff at base, which is clothed with silvery or pale yellowish hair, darker on distal half or two-thirds, where the hair is black on the outer and brown or ochraceous on the inner side; middle tibiae cream-buff or cream-coloured at base, ochraceous-buff or even sometimes darker towards distal extremities, clothed (at least at base) with silvery or yellowish-silvery hair, which towards distal extremity usually passes into bright orange-ochraceous hair; hind tibiae black or dark brown, cream-buff at extreme base and ochraceous or ochraceous-rufous at distal extremity, clothed on outer side at base with silvery, and elsewhere on outer side and on posterior surface with bright ochre-yellow or orange-ochraceous hair, and fringed on inner margin, except at extremities, with long black hair.
Hab. Ruwenzori and Entebbe, Uganda Protectorate; and Ashanti and Sierra Leone, W. Africa; type of ♂ from Mubuku Valley, E. Ruwenzori, 6000–13,000 ft., 17th Jan.; type of ♀ from Sierra Leone (ex Bigot Collection, presented by Mr. G. H. Verrall); the other specimens in the Museum collection include a ♀, taken between Salt Lake and Wawamaba Country, Ruwenzori district (G. F. Scott Elliot); another ♀, from Entebbe, Uganda, May, "caught in laboratory" (Captain E. D. W. Greig, I.M.S.); 3 ♂ ♂ and 1 ♀ from Obuasi, Ashanti, January, June, August, and September (Dr. W. M. Graham); and a ♂ and ♀ from Sierra Leone (taken respectively by Surgeon-Captain Clements and J. Foxcroft).

Megaspis bulligera may at once be distinguished by the coloration of the body and wings from Megaspis bullata (Eristalis bullatus) Lw. (Öfvers. af K. Vet.-Akad. Förhandl. 1857, 381; and 'Die Dipteren-Fauna Südafrika's,' 1860, [391] 319), which also has shining tubercles on the abdomen, and the type of which was taken in Caffraria: in M. bullata the body and the front portion of the proximal half of the wing are deep black. In the ♂ of M. bulligera, taken by Surgeon-Captain Clements in Sierra Leone, the light area on the second abdominal segment is of a wood-brown instead of a dull cinnamon-rufous colour, while, with the exception of the raised tubercles, the parts of the abdomen that are normally black are merely mummy-brown. The specimen selected as the type of the ♀, which, as stated above, is from the collection of the late M. Bigot, bears the following label in Bigot's handwriting:——"Eristalis trichopus, ♀. N. sp. inedit. Quincy, Novembre 1891. M. Bigot.—Sierra Leone." No species, however, appears to have ever been described by Bigot under the name Eristalis trichopus, and the specimen does not, as at first seemed probable, agree with the description of Simoides trichopus Bigot (Ann. Soc. Ent. Fr. Ix. 1891, 373), the type of which, moreover, would appear to be from Assini.

Superfamily MUSCOIDEA, Townsend.

Family TACHINIDÆ.

Subfamily TACHINIDÆ.

DEJEANIA Rob.-Desv.

Dejeania Robineau-Desvoidy, Essai sur les Myodaires, 1830, p. 33.

Dejeania wollastonii, sp. n. (Plate III. fig. 9.)

♂, ♀.—Length, ♂ (5 specimens) 11 to 12 mm., ♀ (8 specimens) 9.25 to 13 mm.; width of head, ♂ 3.25 to 3.6, ♀ 3 to 4 mm.; width of front at vertex, ♂ 1 to just over 1, ♀ 1 to 1.4 mm.; length of wing, ♂ 10 to 12, ♀ 9.6 to 12 mm.; length of portion of palpi projecting beyond epistoma 2.5 to 3 mm.; length of proboscis, from bend near base to tip, 4 to 5.6 mm.
ZOOLOGICAL RESULTS OF THE RUWENZORI EXPEDITION.

**Pectus, pleura**, lateral margins of dorsum of thorax, and legs cinnamon-rufous; dorsum of thorax black, greyish pollinose; abdomen chestnut, sometimes cinnamon-rufous, especially beneath, dorsum greyish pollinose in specimens in good condition, especially near front margins of segments, second, third, and fourth segments each with a triangular or elongate median black spot (sometimes indistinguishable or absent on one or more, or even all of the segments); all macrochaetae and spines black; wings sepia-coloured, with a dark brown area (sometimes russet-brown, or wholly or partly absent) on antero-proximal portion, extending from base to end of first longitudinal vein.

**Head**: face and jowls buff, whitish pollinose, frontal stripe burnt-umber-coloured or chocolate-brown, sides of front usually blackish, sometimes burnt-umber-coloured; occiput blackish, greyish pollinose; epistoma very prominent; basioccipital region clothed with long whitish hair; face on each side with an irregular row of fine black bristles, descending nearly to level of lower margin of eye; **proboscis** cinnamon-rufous, darker towards tip, long, slender, and projecting beyond **palpi**, which are ochraceous or ochraceous-buff, and also very slender, with margins of portion projecting beyond epistoma parallel, and clothed with black bristles, which are longer below, especially at distal extremity; **antennae** cinnamon-rufous to dark chestnut or dark brown, first and second joints usually lighter than third joint, second and third joints light greyish pollinose, third joint very much wider in ♂ than in ♀, **arista** dark brown, with second joint moderately elongate, and third joint, except distal extremity, minutely pubescent.

**Thorax**: dorsum with greyish pollinose covering most distinct in front, where may be seen commencement of a pair of narrow, admedian, dark, longitudinal stripes, which disappear before reaching transverse suture; fine hair clothing dorsum between macrochaetae uniformly black; mesopleure whitish pollinose, with fine whitish hair at base of black bristles; **scutellum** dull chestnut. **Abdomen**: black median spots on dorsum not or scarcely reaching hind margins of segments, with their bases resting on front margins; fine hair clothing dorsum black, sometimes more or less whitish, that on sides whitish; second segment with two or three, third segment with from four to six spines on each side in front of marginal series, arranged in a more or less regular transverse row. **Wings**: veins beyond darker area sometimes bordered with darker colour. **Legs** clothed mainly with black hair and bristles, but with whitish or yellowish hair on under side of basal half of femora, and pile on under side of hind tarsi bright buff-yellow.

**Hab.** Ruwenzori, Uganda; and East Africa Protectorate: types of ♂ and ♀ and one other ♀ from Mubuku Valley, E. Ruwenzori, 5000–13,000 ft., 14th, 17th, and 31st Jan.; also 1 ♂, 2 ♀ ♀ from Ruwenzori, 7000–9000 ft. (G. F. Scott Elliot); 2 ♂ ♂, 2 ♀ ♀ from Njoro, E. Africa Protectorate (A. J. Cholmley); and 1 ♂ and 2 ♀ ♀ from Mombasa, E. Africa Protectorate (A. J. Cholmley). A specimen from the last-mentioned locality bears the label:—“Hatched in box of moth and butterfly chrysalides.” I have much pleasure in naming this species in honour of Mr. A. F. R.
Wollaston, one of the members of the Ruwenzori Expedition, of which he has recently published a fascinating account *.

In spite of the variation exhibited by the series of specimens enumerated above, as regards the presence or absence—partial or complete—of the spots on the abdomen and the dark area on the anterior portion of the proximal half of the wing, it is impossible to regard the differences as anything more than individual. As regards the abdominal markings, at any rate, somewhat similar differences are exhibited by Dejeania capensis Rob.-Desv. (\(?=\) Dejeania (Stomoxys) bombylans Fabr.), a widely distributed species in Central and South Africa, which can readily be distinguished from D. wollastonii owing to the general chrome-yellow colour of the body, by contrast with which the black abdominal spots are much more conspicuous.

Sericophoromty †, gen. n.

Allied to Chaetolyga ‡ Rond., but distinguished by the claws and pulvilli of the \(\delta\) not being elongate, and by the special character of the thoracic hair, or a portion thereof.—Stoutly built, thick-set flies, with densely hairy eyes, and thorax (dorsum or pleura, or both) thickly clothed between the macrochaetae with fine, yellowish, silky hair, often crinkled, especially on pleurae. Face more or less hairy; scutellum semi-translucent; hind tibia ciliated.

Head: front moderately prominent, in \(\delta\) of moderate width or rather narrow; vertical bristles present in both sexes; ocellar bristles directed forwards and outwards; \(\sigma\) without, \(\varphi\) with 2 orbital (fronto-orbital) bristles on each side; sides of face (parafacials of Townsend) of moderate width, or rather narrow; depth of jowls one-eighth to one-sixth or one-fifth of that of eye, lower margin of head straight; facial angles close to margin of buccal cavity, interspace not constricted; facial ridges ciliated on lower third, or to above middle; third joint of antennæ long, and of moderate or considerable breadth, from three to four times as long as second, penultimate joint of arista not elongate. Thorax: dorsum without distinct longitudinal stripes. Abdomen: macrochaetae marginal.


* 'From Ruwenzori to the Congo. A Naturalist's Journey Across Africa.' By A. F. R. Wollaston. With Illustrations. (London: John Murray, Albemarle Street, W. 1908.)

† σησίκωρος, silk-bearing (alluding to the character of the fine hair on the thorax); μυία, a fly.

‡ In the 'Katalog der Pusliarktischen Dipteren,' Bd. iii., by Dr. M. Bezzi and P. Stein (Budapest: 1907), p. 229, this genus is reduced to the rank of a section of the genus Winthemia Rob.-Desv. ('Essai sur les Myidaires,' 1830, p. 173), which, however, was so briefly and imperfectly characterised by its author that it cannot fairly be regarded as having been described at all; I therefore see no valid reason for allowing Chaetolyga Rond. to be superseded.
Sericophoromyia claripilosa, sp. n. (Plate III. fig. 10.)

♂.—Length (1 specimen) 12·25 mm.; width of head 4·25 mm.; width of front at vertex 0·6 mm.; length of wing 9 mm.

Dorsum of thorax and abdomen moderately shining; dorsum of thorax (exclusive of scutellum and a median quadrilateral area immediately in front of it) olive, clothed with black hair and bristles; silky, wrinkled hair maize-yellow, confined to pleura, postalar calli, hinder portion of humeral calli, and lateral margins of scutellum; sides of anterior portion of abdomen tawny ochraceous, last two segments, except basal angles, black; first segment very short and entirely black, second segment with a large median black blotch, third segment with a black median triangle; wings with a slight brownish tinge, extreme base ochreous; legs black, hind tibia faintly ochraceous on inner side in middle, front femora yellowish pollinose on sides and beneath, middle and hind femora greyish pollinose on anterior and posterior surfaces.

Head yellowish, front clothed with dark brown hair, upper half (or rather less) of front blackish or black, frontal stripe black, its middle portion narrower than sides of front; sides of face ("parafacials" of Townsend) narrow, frontal bristles descending to level of end of second joint of antenna, and followed by a compound series of fine blackish hair, which descends to level of point at which ciliation of facial ridges ceases, i.e., to level of upper end of lowest third of facial ridges; jowls and occiput clothed with buff-yellow hair; hairy covering of eyes brown above, yellowish below; palpi stout, clavate, brown, extreme tips buff, clothed with black hairs and bristles; antenna, including arista, entirely clove-brown, third joint oblong, broad, about four times as long as second, and three times as long as broad. Thorax: scutellum and median quadrilateral area in front of it honey-yellow, scutellum clothed, apart from lateral margins and macrochaetae, entirely with short black hair; pectus, pleurae, and lateral margins of dorsum olivaceous, yellowish pollinose; humeral calli buff, postalar calli dusky ochraceous-buff. Abdomen clothed above with short black hair, on sides and below with pale Naples yellow hair; third and fourth segments yellowish pollinose in front above, greyish pollinose below; black median blotch on dorsum of second segment in shape of a truncated triangle, with base resting on front margin, sides somewhat curved, and apex cut off by hind margin; black median triangle on dorsum of third segment with base resting on hind margin, and apex produced to meet front margin; dorsum of fourth segment with a tawny-ochraceous triangle occupying each basal angle, the apices of these triangles directed towards middle line, but widely separated; dorsum of fifth segment (at least in case of type) with only a very small and scarcely noticeable fleck in each basal angle; venter tawny ochraceous, with apex (fourth and fifth segments, except basal angles of former) black, a transversely elongate, black blotch on anterior margin of second, and a black, transverse band on posterior half of third segment. Squamae wax-yellow. Legs clothed with black hair and bristles, but with long maize-yellow hair on under side of front and hind femora, and on under side of
basal half of middle femora; fringe of bristles (ciliation) on outer side of hind tibiae long and regular.


Sericophoromyia claripilosa may be distinguished from S. dusyops Wied. inter alia by the darker colour of the hairy covering of the eyes, the sides of the face being narrower and bearing blackish instead of pale yellow hair, the ciliation of the facial ridges being confined to the lower third instead of extending above the middle, the silky thoracic hair being restricted in extent as above described instead of extending over the whole thorax, including the disc of the scutellum, the upper surface of the scutellum being without short, scattered, black bristles, and by the tibiae and tips of the middle and hind femora not being tawny.

Subfamily Dexinae.

Dexia Mg.


Dexia inappendiculata, sp. n. (Plate III. fig. 11.)

♂.—Length (2 specimens) 11-5 to 12 mm.; width of head 2-8 mm.; width of front at vertex 0-6 mm.; greatest width of abdomen 3-4 mm.; length of wing 10-4 mm.

Rather narrow-bodied and elongate; thorax Naples yellow pollinose, dorsum marked with four interrupted and incomplete longitudinal black stripes, as in Dexia rustica Fabr.; abdomen ochraceous-buff, yellowish pollinose, dorsum with a fairly broad, longitudinal, clove-brown stripe, extending from base to apex, interrupted on front margins of segments, and expanding somewhat on hind margins; wings sepia-coloured, moderately dark, bend of fourth longitudinal vein without an appendix.

Head ochraceous-buff, yellowish pollinose, frontal stripe dark mummy-brown; bristles and hair, except yellowish hair on basi-occipital region, entirely black; facial septum well developed; palpi small, buff; antennæ ochraceous-buff. Thorax clothed exclusively with black hair and bristles. Abdomen also clothed with entirely black hair and bristles; dorsum with hind borders of all segments more or less dusky, partly owing to each macrochaeta standing on a small, circular, dark clove-brown spot; venter with median, longitudinal, clove-brown stripe, which, except on last segment or last two segments, appears double, since inner edges of scutes alone are pigmented. Wings: small transverse vein darker than other veins, posterior transverse and distal portion of fourth longitudinal vein slightly suffused with brown. Squamae and halteres buff. Legs tawny-ochraceous, tarsi clove-brown; all legs slender and elongate, clothed with black hair and bristles, proximal third of front tibiae distinctly narrowed.

Hab. Ruwenzori, 7000–8000 ft. (G. F. Scott Elliot).

In the coloration of the body Dexia inappendiculata presents a general resemblance to the common European D. rustica Fabr., from which, however, it may be vol. xix.—part i. No. 13.—October, 1909.
ZOOLOGICAL RESULTS OF THE RWENZORI EXPEDITION.

distinguished, *inter alia*, by its narrower and more elongate shape, dusky hind borders to the abdominal segments, infuscated wings, and the absence of an appendix to the bend of the fourth longitudinal vein. *Dexia bugens* Wied. (Auss. zw. Ins. ii. 1830, p. 374), the type of which is stated to be from the Cape of Good Hope, was perhaps wrongly assigned by its author to the present genus; but in any event *D. inappliculata* must be readily distinguishable from it, since, according to the original description, the abdomen in Wiedemann's species is shimmering grey and black, with an almost chequered appearance. A ? *Dexia* from Natal in the Museum collection, belonging in all probability to an undescribed species, has the usual appendix to the fourth longitudinal vein.

Subfamily Sarcophaginæ.


*Sarcophaga notatipes*, sp. n. (Plate III. fig. 12.)

♂.—Length (1 specimen) 12 mm.; width of head 3 mm.; width of front at vertex 0·8 mm.; greatest width of abdomen just over 3 mm.; length of wing 9·5 mm.

Olivaceous, body rather narrow and elongate; dorsum of thorax with three fairly broad, dark, longitudinal stripes; abdomen with shimmering patches of usual type, and segments shining black; all hair and bristles on body and legs black; wings with a brownish tinge, and each wing with a large, circular, clove-brown spot surrounding small transverse vein, and three other somewhat lighter clove-brown markings.

Head black, front and face clothed with pale yellowish pollen, jowls and occiput with greyish pollen; when viewed in profile, a conspicuous, quadrate, dark patch next eye on each side, on a level with base of antenna; frontal stripe black; upper part of sides of face with a descending row of fine hairs, lower part of sides of face with a row of four or five relatively long and stout bristles, uppermost bristle but one being particularly long; *palpi* and *antennae* (including arista) clove-brown, third joint of antenna nearly three times as long as second. *Thorax*: four post-sutural dorso-central bristles, of which second, counting from front, is very small in case of type; dorsum in type damaged by exudation of fluid, median longitudinal stripe apparently olive; *scutellum* olive, with a lighter fleck on each basal angle. *Abdomen*: second, third, and fourth segments each with a narrow, median, dorsal, sepia-coloured triangle, its base resting on posterior and its apex extending to anterior margin; when abdomen is viewed from above, each of these triangles appears situated on a shimmering olive-grey patch of irregular outline, while on each side, in case of second and third segments, with its base resting on anterior margin and its posterior angles rounded, is a quadrate shimmering olive-grey patch, hind margin of which is not quite half-way between front and hind margins of segment; on fourth segment corresponding patches are smaller and more irregular in outline; second, third, and fourth segments each with a pair of median marginal macrochaetae on dorsum, pair on fourth segment being in centre, and
slightly in advance, of a complete transverse row of macrochaetae; anal segments clothed with fine hair; venter olive-grey pollinose, looking darker when viewed from certain directions. Wings: veins, except first longitudinal, end of auxiliary, distal portion of fourth longitudinal, and transverse veins or portions of longitudinal veins covered by dark spots mainly cinnamon-rufous; third longitudinal vein alone setigerous, bristles extending from point of origin of second longitudinal vein to rather less than half-way between this and small transverse vein; besides large circular spot surrounding small transverse vein, base of bent up portion of fourth longitudinal vein, from angle to point where vein is bent outwards, and posterior transverse vein are also clouded with clove-brown (in case of posterior transverse vein colour is darker at each end of the streak); a fourth dark fleck is situate at distal extremity of basal fourth of wing, lying in first basal cell immediately above transverse vein forming proximal boundary of discal cell, and also extending into base of discal cell itself. Squamae whitish, central portion with a light brownish tinge. Legs black, femora more or less dark greyish pollinose, under side of hind femora and inner side of hind tibiae thickly fringed with long and fine hair.


The conspicuous wing-markings of *Sarcophaga notatipennis* at once distinguish it from any of its African congeners at present known, since *Sarcophaga spilogaster* Wied. (Anal. Ent. p. 50, & Auss. zweifl. Ins. ii. 1830, p. 362.—Cape of Good Hope) and *S. octomaculata* Jaenn. (Abhandl. der Senckenb. Gesellsch. Bd. vi., 1867, p. 379.—Massowah), both of which have similarly spotted wings, belong to the genus *Angiometopa* Br. & von Berg., owing to the fact that in them the abdomen bears fixed black spots, in addition to the usual shimmering chequered pattern, though the latter, in the case of *A. spilogaster*, at any rate, is much reduced.

*Sarcophaga inequals*, sp. n. (Plate III. fig. 13.)

♂.—Length (1 specimen) 10·5 mm.; width of head 3·25 mm.; width of front at vertex 1 mm.; length of wing 8·8 mm.

Grey, with shimmering patches on abdomen; dorsum of thorax with three broad clove-brown longitudinal stripes, extending from front to hind margin, and a shorter stripe on each side; when viewed from above, second, third, and fourth abdominal segments each exhibit a dark (clove-brown), quadrate, median area, occupying whole length of segment, and flanked on each side by a shimmering grey patch; median dark area on fourth segment narrower than that on third, which is narrower than that on second; posterior angles of median areas each produced outwards into a dark blotch, which has a greyish-oliveaceous sheen when viewed from certain directions; first anal segment clove-brown, greyish pollinose, second anal segment ferruginous; all hair and bristles on body and legs black; wings hyaline, without spots; bristles on sides of face fine, rather numerous, and not arranged in a single row.

Head blackish, front, face, jowls, and posterior orbits bright straw-yellow pollinose,
occiput greyish pollinose, clothed, like basi-occipital region, with pale yellow hair; anterior margin of buccal cavity cream-buff; palpi dark brown, indistinctly russet towards base; antennae clove-brown, with a greyish sheen, third joint about two and a half times as long as second, arista with a distinct pale band. **Thorax:** four post-sutural dorso-central bristles, the foremost small; median dorsal stripe continued on to scutellum, and extending nearly to hind margin of latter. **Abdomen:** when dorsum of second, third, and fourth segments is viewed at a low angle from behind it appears shimmering grey, with a clove-brown median longitudinal stripe and a similarly coloured pair of admedian longitudinal stripes, or elongate blotches, on each segment, the admedian stripes on each successive segment being further from the lateral margins; a pair of median marginal macrocheetes only on third and fourth segments; fine hair on anal segments really clove-brown rather than black, when viewed from side. **Wings:** bristles confined to base of third longitudinal vein. **Scutellum** waxen white, central portion with a slight brownish tinge. **Legs** black, inner side of middle and hind tibiae tinged with chestnut, femora more or less greyish pollinose, under side of hind femora and inner side of hind tibiae thickly fringed with long and fine hair.

**Hab.** Ruwenzori, 6000–8000 ft. (G. F. Scott Elliot).

The fineness of the bristles on the sides of the face, and the fact that they are not arranged in a single row but, especially below, form an irregular cluster, will help to distinguish this species.

**Family Muscidae.**

**Subfamily Glossininae.**

**Glossina Wied.**

*Glossina* Wiedemann, Aussereruropäische zweiflügelige Insekten, ii., 1830, p. 253.

**Glossina fusca** Walk.


**Glossina fusca** Austen, 'A Monograph of the Tsetse-Flies,' 1903, p. 95, pl. vi. (q. v. for additional synonymy).

1 ♂.—In forest between Irumu and Avakubi, E. Congo Free State, alt. 2000 ft., Oct.

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**Note.—** We have recently received a separate copy of the following paper:—"Notes on a Collection of Siphonaptera from Ruwenzori, Uganda," by the Hon. N. Charles Rothschild, M.A., F.L.S., F.E.S., published in the 'Entomologist's Monthly Magazine,' (2) xix. pp. 76–79, pl. i. (1908).

This paper was unfortunately received too late to be incorporated in the body of this work. It contains descriptions of the following five species, the first four being new:

Fig. 1. *Tabanus ruwenzorii* Ricardo, p. 86.
5. " *punctifrons* Austen, p. 89.
TRANSACTIONS

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(Plates IV.—VII.)

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RUWENZORI EXPEDITION REPORTS

11. LEPIDOPTERA HETEROCERA.

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The Moths brought home by the Ruwenzori Expedition were collected by the Hon. Gerald Legge and Mr. A. F. R. Wollaston. A few species subsequently taken at Entebbe and on the north-western shore of Lake Tanganyika by Mr. Wollaston are also included in the present paper, and are distinguished by having "(A. F. R. Wollaston)" placed after them.

A large acetylene lamp which was taken out for collecting-purposes proved almost a complete failure and attracted very few insects; but the Moth-Fauna on Ruwenzori seems to be remarkably poor, possibly owing to the almost continuous rains to which the forests on the higher slopes are subject. The specimens were mostly taken at two places:—

(1) Mokia, S.E. Ruwenzori, 3500 ft., a dry plain covered with short grass, Euphorbia, and acacia-trees. Here the moths were of the usual mixture of East and West African types which prevails throughout the greater part of the Uganda Protectorate.

(2) The Mubuku Valley, E. Ruwenzori, penetrates into the very heart of the range, commencing between the snow-covered ridges. Up to about 8000 ft. its vegetation is that of a tropical valley. The forest is then succeeded by bamboos, tree-heaths, giant lobelias, and senecios, which extend up to about 14,000 ft. In the higher zones possible traces of a Palaearctic fauna are represented by a few species of Noctuidae of the subfamily Agrotinae, and Geometridae of the subfamily Larentiinae. Episilia rhodopea was found at 12,600 ft., the highest point at which any moth was captured. This species is more Palaearctic in appearance than any other in the collection.

LEPIDOPTERA PHALEÆNE.

Family SYNTOMIDÆ.


N.W. Tanganyika, 1 ♂ (A. F. R. Wollaston).

* For explanation of the Plate, see p. 140.

VOL. XIX.—PART II. NO. 14.—DECEMBER, 1909.
Mokia, S.E. Ruwenzori, 3500 ft., 3 ♀.

Epitoxis albicincta Hmpsn. A. M. N. H. (7) xi. p. 339 (1903). (Plate IV. figs. 1, 2.)
Mokia, S.E. Ruwenzori, 3500 ft., 1 ♂, 1 ♀.
The female has the head, tegulae, and patagia yellowish, the abdomen yellowish except at base and before extremity.

Mokia, S.E. Ruwenzori, 3500 ft., 1 ♀.

Apisa metarctioides Hmpsn. A. M. N. H. (7) xix. p. 224 (1907). (Plate IV. fig. 3.)
Mubuku Valley, E. Ruwenzori, 6000 ft., 1 ♂.

Mokia, S.E. Ruwenzori, 3500 ft., 1 ♀.

Metarctia buera Schaus, Lep. S. Leone, p. 23, pl. 1. f. 6 (1893).
Mokia, S.E. Ruwenzori, 3500 ft., 1 ♂.

Mubuku Valley, E. Ruwenzori, 5000 ft., 1 ♂.

Metarctia pulverea Hmpsn. A. M. N. H. (7) xix. p. 225 (1907). (Plate IV. fig. 4.)
Mubuku Valley, E. Ruwenzori, 6000 ft., 1 ♀.

Mokia, S.E. Ruwenzori, 3500 ft., 2 ♂; L. Albert Edward, 1 ♂.

Metarctia flaviciliata Hmpsn. A. M. N. H. (7) xix. p. 225 (1907). (Plate IV. fig. 40.)
Fort Beni, Semuliki Valley, 1 ♂, 1 ♀.

Family Arctiadae.

Subfamily Lithosiinae.

Ilema vicaria Wlk. ii. 505 (1854).
Mokia, S.E. Ruwenzori, 3500 ft., 1 ♀.
Mokia, S.E. Ruwenzori, 3500 ft., 1 ♀.

CHIONEMATA REJECTA Wlk. ii. 521 (1854).
Mokia, S.E. Ruwenzori, 3500 ft., 1 ♀.

Subfamily ARCTIINAE.

DIACRISIA SULPHUREA Bartel, Iris, xvi. p. 189 (1903).
Mubuku Valley, E. Ruwenzori, 5000 ft., 1 ♂.

DIACRISIA MELANODISCA Hamp. A. M. N. H. (7) xix. p. 236 (1907). (Plate IV. figs. 5-6.)
Mubuku Valley, E. Ruwenzori, 6000 ft., 1 ♂, 1 ♀.

ESTIGMENE CARSCHI Bartel, Iris, xvi. p. 189 (1903).
Mokia, S.E. Ruwenzori, 3500 ft., 1 ♂.

Mokia, S.E. Ruwenzori, 3500 ft., 1 ♀.

RHODOGASTRIA BUBO Wlk. iii. 747 (1855).
Mubuku Valley, E. Ruwenzori, 7000 ft., 2 ♀.

Family AGARISTIDAE.

Mokia, S.E. Ruwenzori, 3500 ft., 1 ♀. The yellow variety.

ÆGOCERA MENETE Cram. Pap. Exot. i. pl. 70. f. D (1775).
Mokia, S.E. Ruwenzori, 3500 ft., 2 ♂; Mulema, S. Uganda. 1 ♂ (W. G. Doggett).

Family NOCTUIDAE.

Subfamily AGROTIINAE.

Mokia, S.E. Ruwenzori, 3500 ft., 1 ♂, 1 ♀.


Subfamily Hadeninæ.


Subfamily Acronyctinæ.


Aboricornis chrysophea Hmpsn. Cat. Lep. Phal. B. M. vii. p. 359 (1908). (Plate IV. fig. 12.) Palpi porrect, extending about twice the length of head, the 3rd joint downturned.
♂. Head and thorax yellow tinged with red, the vertex of head whitish; palpi, antennae, and legs red-brown; abdomen yellowish-white irroration with brown, the crests blackish. Fore wing golden-yellow tinged with red; a brownish patch at base of costa; antemedial line very indistinct, rufous, waved, an oblique red-brown shade from costa just beyond it to median nervure; black points at upper and lower angles of cell; postmedial line rather diffused, rufous, defined by whitish on outer side, double and oblique from costa to vein 6, almost obsolete and curved inwards to vein 2, then erect; subterminal line rufous, diffused, oblique from apex to vein 6 near postmedial line, then excurred at middle; a fine rufous terminal line. Hind wing white, the apex and inner margin towards tornus irroration with rufous; cilia with some brown spatulate scales towards tornus; the underside with the costal area slightly irroration with brown towards base.

*Hab.* Mubuku Valley, E. Ruwenzori, 6000 ft., 1 ♂ type. Exp. 28 mm.

**Prodenia litura** Fabr. Syst. Ent. p. 601 (1775).

Mokia, S.E. Ruwenzori, 3500 ft., 1 ♂.


Fore wing of male with small patch of ochreous androconia in cell on underside.

Head and thorax red-brown mixed with purplish-grey; palpi black-brown, white at tips; tegulae with black-brown band at base; tarsi black ringed with white; abdomen red-brown. Fore wing purplish-grey suffused and irroration with red-brown; subbasal line black, waved, from costa to submedian fold; antemedial line black, bent inwards to costa, then sinuous, excurred above inner margin; orbicular and reniform black-brown slightly defined by whitish, their lower extremities connected by a fascia, thus forming a U-shaped mark; traces of a dark medial shade; postmedial line slight, black, interrupted, with small black spot at costa, oblique from costa to vein 6, then dentate, incurred below vein 4; subterminal line indistinct, pale, defined on inner side by slight dentate dark marks from below costa to vein 4, angled outwards at vein 7 and excurred at middle; a terminal series of minute black lunules. Hind wing greyish, tinged with ochreous, the termen rather darker from apex to submedian fold; cilia ochreous white; the underside whitish, the costal area irroration with brown, a blackish discoidal lunule, rather diffused indistinct postmedial line from costa to vein 3 and terminal series of small black lunules.


**Calytmnia ethiopica**, sp. n. (Plate IV. fig. 14.)

♀. Head and thorax rufous mixed with grey-white, palpi brown, whitish towards

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*Footnotes*

1. Head and thorax yellow tinged with red, the vertex of head whitish; palpi, antennae, and legs red-brown; abdomen yellowish-white irroration with brown, the crests blackish. Fore wing golden-yellow tinged with red; a brownish patch at base of costa; antemedial line very indistinct, rufous, waved, an oblique red-brown shade from costa just beyond it to median nervure; black points at upper and lower angles of cell; postmedial line rather diffused, rufous, defined by whitish on outer side, double and oblique from costa to vein 6, almost obsolete and curved inwards to vein 2, then erect; subterminal line rufous, diffused, oblique from apex to vein 6 near postmedial line, then excurred at middle; a fine rufous terminal line. Hind wing white, the apex and inner margin towards tornus irroration with rufous; cilia with some brown spatulate scales towards tornus; the underside with the costal area slightly irroration with brown towards base.

2. Fore wing of male with small patch of ochreous androconia in cell on underside.

3. Head and thorax red-brown mixed with purplish-grey; palpi black-brown, white at tips; tegulae with black-brown band at base; tarsi black ringed with white; abdomen red-brown.

4. Fore wing purplish-grey suffused and irroration with red-brown; subbasal line black, waved, from costa to submedian fold; antemedial line black, bent inwards to costa, then sinuous, excurred above inner margin; orbicular and reniform black-brown slightly defined by whitish, their lower extremities connected by a fascia, thus forming a U-shaped mark; traces of a dark medial shade; postmedial line slight, black, interrupted, with small black spot at costa, oblique from costa to vein 6, then dentate, incurred below vein 4; subterminal line indistinct, pale, defined on inner side by slight dentate dark marks from below costa to vein 4, angled outwards at vein 7 and excurred at middle; a terminal series of minute black lunules. Hind wing greyish, tinged with ochreous, the termen rather darker from apex to submedian fold; cilia ochreous white; the underside whitish, the costal area irroration with brown, a blackish discoidal lunule, rather diffused indistinct postmedial line from costa to vein 3 and terminal series of small black lunules.


6. **Calytmnia ethiopica**, sp. n. (Plate IV. fig. 14.)

♀. Head and thorax rufous mixed with grey-white, palpi brown, whitish towards
tips; antennae brown, whitish at base; pectus and legs whitish mixed with fuscous brown; abdomen dark brown slightly mixed with greyish. Fore wing ochreous, suffused with rufous and slightly irrorated with blackish, the veins slightly streaked with blackish; subbasal line represented by a slight dark striga from costa; antemedial line black defined by whitish on inner side, nearly erect and slightly excurved from subcostal nervure to vein 1; orbicular a dark point, the reniform a small lunule, slightly defined by blackish; a rather diffused oblique sinuous fuscous medial line; postmedial line black, defined by white on outer side, very oblique and ending near tornus, excurved from below costa to vein 4, the area beyond it whitish, irrorated with fuscous to the subterminal line which is whitish, defined on inner side by fuscous suffusion between veins 6 and 3, slightly excurved below vein 7 and ending at tornus; a dark brown terminal line; cilia pale yellow at base, brownish at tips. Hind wing whitish, suffused with reddish-brown; a large dark discoidal lunule and traces of a curved postmedial line; some dark points on termen; cilia pale yellow at base, brownish at tips, the underside whitish, irrorated with dark brown, a large black-brown discoidal lunule, curved postmedial line, and terminal series of small lunules.

_Hab._ Mubuku Valley, E. Ruwenzori, 6000 ft., 1♀ type. _Exp._ 30 mm.

*Xylostola olivata,* sp. n. (Plate IV. fig. 16.)

♀. Head and thorax ochreous tinged with olive-brown, palpi rather browner at sides; abdomen brownish-grey, tinged with rufous dorsally towards extremity. Fore wing ochreous tinged with olive-brown and slightly irrorated with black, the terminal area tinged with red-brown; a black point at base and a small subbasal black spot on median nervure; traces of an oblique waved antemedial line; a whitish point in middle of cell, surrounded by some black scales; reniform defined by some black scales on inner side and with black points at upper and lower extremities; postmedial line indistinct, oblique from costa to vein 6, then minutely waved, oblique below vein 5; subterminal line formed of small ochreous lunules, defined on inner side by slight fuscous spots, oblique, and with oblique fuscous shade to it from apex; a series of black points just before termen. Hind wing ochreous-whitish tinged with brown; a fine brown terminal line; cilia with a fine yellowish line at base; the underside yellowish-white, the costal area slightly irrorated with brown, a blackish discoidal-spot, indistinct rather diffused curved postmedial line and terminal series of black points.

_Hab._ Mubuku Valley, E. Ruwenzori, 6000 ft., 1♀ type. _Exp._ 42 mm.

_Calamistis obliquifascia,* sp. n. (Plate IV. fig. 15.)

♂. Antennae somewhat laminate and ciliated.

Head, thorax, and abdomen ochreous-white mixed with fuscous; palpi with the second joint fuscous at sides. Fore wing ochreous-white irrorated with black, the veins streaked with whitish; a rather diffused black streak below base of cell; a faint
whitish discoidal lunule; an oblique whitish fascia from apex to inner margin beyond middle, defined on outer side by blackish marks; a terminal series of small black lunules; cilia whitish at base, mixed with black at tips. Hind wing whitish, slightly tinged with brown; a terminal series of slight dark striæ from apex to vein 2; the underside whitish, slightly irrorated with brown.

Mokia, S.E. Ruwenzori, 3500 ft., 1 ♂ type; Transvaal, White R. (A. T. Cooke), 1 ♂. Exp. 24 mm.


Mokia, S.E. Ruwenzori, 3500 ft., 1 ♂.

**Subfamily Erastriæ.**

**Amyna octo** Guen. Noct. i. p. 233 (1852).

Mokia, S.E. Ruwenzori, 3500 ft., 1 ♀.

**Metapioplasta insocia** Wilk. xii. 788 (1857).

Mokia, S.E. Ruwenzori, 3500 ft., 1 ♀.

**Tarache niphogona**, sp. n. (Plate IV. fig. 17.)

♀. Head black-brown; palpi white below; thorax white with some pale olive scales on patagia and metathorax and small paired black spots on metathorax, the tibiae and tarsi banded with olive-brown; abdomen olive-brown, white at base and on ventral surface. Fore wing with the basal half white, the terminal half olive-brown; subbasal line grey, double, waved, from costa to submedian fold; antemedial line grey, double, waved, somewhat oblique; orbicular a black point; reniform defined by blackish, elliptical, a white point above it on costa; a triangular postmedial white patch on costa with the rather lunulate blackish postmedial line arising from it, below vein 4 incurved to below end of cell; two white points on costa towards apex; subterminal line greyish on costal half, then white, defined on inner side by small dentate red-brown marks, excurred below vein 7 and at middle and incurved at discal and submedian folds where there are leaden-grey patches beyond it, followed by a series of black striæ on white marks except towards apex; a terminal series of greyish marks; cilia pale brown. Hind wing grey, tinged with brown; a slight discoidal point and diffused postmedial and terminal bands; cilia white, brown at base towards apex; the underside whiter, suffused in parts with brown, the discoidal point and postmedial and terminal bands more distinct.

*Hab.* Mokia, S.E. Ruwenzori, 3500 ft., 2 ♀ type. Exp. 32 millim.

**Tarache crocata** Guen. Noct. i. p. 218 (1852).

Mokia, S.E. Ruwenzori, 3500 ft., 1 ♂.
Subfamily Catocalini.

**Nyctipao macrops** Linn. Syst. Nat. ed. xii. p. 225 (1766).
Mokia, S.E. Ruwenzori, 3500 ft., 1 ♀.

**Cyligramma limacina** Guér. Icon. R. Anim., Ins. pl. 89. f. 2 (1829).
Mubuku Valley, E. Ruwenzori, 6000 ft., 1 ♀.

**Cyligramma goudoti** Guen. Noct. iii. p. 189 (1852).
Mokia, S.E. Ruwenzori, 3500 ft., 1 ♀.

**Spicama capensis** Herr.-Schaff Aussereur. Schmett. ff. 121, 122 (1850).
Mokia, S.E. Ruwenzori, 3500 ft., 1 ♂.

Mokia, S.E. Ruwenzori, 3500 ft., 1 ♀.

**Chalciope hypasia** Cram. Pap. Exot. iii. pl. 250. f. E (1779).
Mokia, S.E. Ruwenzori, 3500 ft., 1 ♂, 1 ♀.

**Remigia pectinata**, sp. n. (Plate IV. fig. 32.)

Antennae of male bipectinate, with moderate branches ending in bristles, the apex serrate.

Head and thorax rufous, mixed with greyish and dark brown; palpi browner, antennae yellowish; abdomen fulvous-yellow. Fore wing yellowish, suffused with red-brown and irrorated with dark brown; subbasal line brown, excurred below costa and ending at submedian fold; antemedial line yellowish-white with a red-brown band on its outer side expanding into a large patch in submedian interspace and ending at vein 1, the line oblique to median nervure, incurved in submedian interspace and bent outwards above inner margin, with a small black spot defined by yellow before it above inner margin; orbicular a small round whitish spot defined by brown; reniform greyish, defined by brown, and with some brown suffusion in centre, large and rather elliptical; two indistinct curved waved lines on medial area with diffused bars at costa; postmedial line red-brown, slightly defined by yellowish on outer side, forming a bar at costa, bent outwards below costa, oblique to vein 6, then inwardly oblique and sinuous; postmedial area fuscous-brown and greyish, narrow except on costal area, some yellowish points at costa; subterminal line defined on inner side by red-brown and slightly incurved from costa to below vein 7, then reduced to short streaks on the veins, pale at middle and fuscous at either extremity; a fine waved brown terminal line. Hind wing yellow, the inner and terminal areas suffused with brown;
an indistinct sinuous line just beyond middle, excurred and with red-brown bar on it above inner margin; a diffused brown postmedial line bent outwards to tornus; a fine brown terminal line with some yellowish before it; cilia brownish with a fine yellow line at base, the underside yellow, irroration with brown except on basal half of inner area, a brown discoidal spot and oblique postmedial line from costa to discal fold.

_Hab._ Uganda, Mubuku Valley, E. Ruwenzori, 6000 ft., 1♂, 1♀ type; Nigeria, Lokoja, Mt. Patti (C. Christy), 1♀. _Exp._ 46–50 mm.


_Hypoglaucitis polycyma_, sp. n. (Plate IV. fig. 18.)
♀. Head, thorax, and abdomen grey-brown mixed with black, the ventral surface pale grey; palpi pale grey at base; tarsi black ringed with white. Fore wing grey-brown irroration with blackish, the medial area rather browner; subbasal line black, waved, from costa to submedian fold; antemedial line black, slightly angled outwards below costa and incurved at vein 1, a diffused fuscous band before it; the medial area with five indistinct inwardly oblique nearly straight brown lines; a slight elliptical discoidal spot defined by brown; postmedial line black, excurred below costa, slightly angled inwards at discal fold, then dentate, incurved below vein 4 and angled outwards at vein 1, another less distinct dentate line beyond it with greyish-fuscous between them; subterminal line indistinct, pale, defined on inner side by fuscous suffusion from costa to vein 6, incurred between veins 6 and 4, then dentate; a fine waved black terminal line; a fine white line at base of cilia. Hind wing greyish, suffused with red-brown; an indistinct diffused dark postmedial band from vein 3 to inner margin; a fine waved dark terminal line; cilia whitish. Underside of both wings whitish, the terminal area irroration with brown and with curved postmedial line; fore wing with the costa tinged with ochreous, a fuscous apical patch.

_Hab._ Mokia, S.E. Ruwenzori, 3500 ft., 1♀ type. _Exp._ 38 mm.

_Homoptera scandatula_ Feld. Reis. Nov. pl. iii. f. 20 (1874).
Mokia, S.E. Ruwenzori, 3500 ft., 1♀.

Subfamily _Plusiana._

_Plusia chalcites_ Esp. Schmett. iv. pl. 141. f. 3 (1789).
Mokia, S.E. Ruwenzori, 3500 ft., 2♀.

Plusia cupreomicans, sp. n. (Plate IV. fig. 19.)

♀. Head and thorax brown mixed with grey, the vertex of head and tegulae, except edges, yellow mixed with red; abdomen grey suffused with brown. Fore wing grey-brown almost entirely suffused with metallic golden-copper, striated and irrorated with brown; subbasal line slight, double, waved, from costa to submedian fold; antemedial line brown defined by silvery scales on inner side, waved, slightly bent outwards below costa, then nearly erect; orbicular silvery-white defined by black, oblique elliptical, extending to submedian fold and with a round silvery-white spot defined by black beyond its lower extremity; reniform faintly defined by brown; postmedial line double with some silvery scales on it, especially from vein 2 to inner margin, bent outwards below costa, then waved, excurred below vein 5, then oblique and again excurred below submedian fold; subterminal line indistinct, dark, angled outwards at veins 7, 6 and below veins 4, 3 and excurred to tornus, two slight whitish subapical marks beyond it; a fine whitish line at base of cilia. Hind wing whitish tinged with brown, the veins, inner area, and terminal half except towards apex suffused with brown; the underside whitish irrorated with brown, an indistinct curved postmedial line, the area beyond it suffused with brown.

Hab. E. Congo, Semliki Valley, 1 ♀ type; Nigeria, Old Calabar (S. D. Crompton), 1 ♀. Exp. 32 mm.

Plusia aranea, sp. n. (Plate IV. fig. 20.)

♀. Head and thorax red-brown mixed with grey, the scales tipped with grey; abdomen ochreous-whitish, the crests mixed with red-brown. Fore wing very thickly striated with grey-white and brown from base to middle of costa, and thence obliquely to termen at vein 2, the apical area cupreous red-brown finely striated with grey; antemedial line indistinct, fine, whitish, excurred from costa to median nervure, then oblique; orbicular with fine very oblique V-shaped white annulus open above, and with oblique whitish through it and continued between the arms of the fine oblique silvery-white Y-shaped stigma below end of cell; reniform with fine white annulus, constricted at middle and slightly angled inwards on median nervure; postmedial line indistinct, fine, whitish, slightly excurred below costa and at middle and incurred at discal fold, acutely angled inwards at vein 2 to below the Y-shaped stigma; a fine minutely dentate whitish subterminal line, excurred below costa and dentate to near termen below veins 4 and 3; a fine white line just before termen; a terminal series of slight dark points; cilia whitish mixed with some brown and with slight waved white line near base. Hind wing whitish tinged with brown, especially on terminal half; cilia white with a brownish line near base; the underside whitish irrorated with brown, especially on costal and terminal areas, traces of diffused brownish postmedial and subterminal lines.

Hab. Mubuku Valley, E. Ruwenzori, 6000 ft., 1 ♀ type. Exp. 32 mm.
Subfamily Noctuidae.

Semliki Valley, 1 ♀; Mokia, S.E. Ruwenzori, 3500 ft., 1 ♀.

Mokia, S.E. Ruwenzori, 3500 ft., 1 ♂.

PANDESMA JUBRA Swinh. P. Z. S. 1889, p. 413, pl. 44. f. 4.

Mokia, S.E. Ruwenzori, 3500 ft., 1 ♂, 1 ♀.

PARATHERMES NUBILATA, sp. n. (Plate IV. fig. 22.)

♂. Head, thorax, and abdomen red-brown; palpi paler at tips; pectus, legs, and abdomen mixed with greyish. Fore wing red-brown slightly irrorated with blackish; an indistinct waved antemedial line; a blackish point below origin of vein 2; orbicular with slight blackish annulus, rather large, round; reniform with slight blackish annulus faintly defined by whitish on inner side; a broad diffused oblique black-brown shade beyond the cell from costa to inner margin, obscuring the postmedial line, which is excurved from costa to vein 4, then incurved; subterminal line double filled in with greyish, the inner line formed of rather diffused blackish spots, oblique towards costa, excurved at middle and angled inwards at discal and submedian folds; patches of dark suffusion beyond it at apex and middle; a terminal series of small black lunules. Hind wing fuscous-brown with indistinct double punctiform postmedial and subterminal lines on inner area with a rufous patch between them; cilia with a fine rufous line at base; the underside rufous irrorated with brown, the inner area greyer, a white point in middle of cell, a black and white discoidal bar and another beyond the cell, an indistinct sinuous postmedial line.

Hab. Mubuku Valley, E. Ruwenzori, 6500 ft., 1 ♀ type. Exp. 34 mm.

ACANTHOLIPES OCHROTA, sp. n. (Plate IV. fig. 23.)

♂. Head and thorax ochreous-white tinged with red-brown; palpi at sides and fore legs more rufous; abdomen ochreous-white. Fore wing ochreous-white, the costal and terminal areas slightly tinged with rufous and irrorated with brown; faint traces of a diffused antemedial line; a blackish discoidal point; traces of an oblique dark line beyond the cell from costa to inner margin; postmedial line dark with a narrow whitish band on its inner side, arising from vein 7 below apex and obliquely incurved to inner margin; subterminal line indistinctly double filled in with whitish, very vol. xix.—part ii. No. 15.—December, 1909.
minutely waved, oblique; a terminal series of black points; cilia dark brown at tips. Hind wing ochreous-white; traces of a diffused antemedial line on inner area and of an oblique medial line from vein 6 to inner margin; an oblique, nearly straight, dark postmedial line with slight brown suffusion on its outer edge; an indistinct oblique subterminal line; a terminal series of black points; the underside irrorated with reddishbrown, a black discoidal spot and traces of diffused postmedial and subterminal lines.

_Hab._ Mubuku Valley, E. Ruwenzi, 6000 ft., 1 σ type. _Exp._ 32 mm.

**Pleuraea lepticyma**, sp. n. (Plate IV. fig. 21.)

Head, thorax, and abdomen grey-brown slightly tinged with rufous and mixed with some fuscous. Fore wing grey-brown slightly tinged with rufous, especially on medial and terminal areas, and irrorated with fuscous; antemedial line double, waved, oblique, bent inwards to costa and angled inwards in cell; a blackish point in middle of cell and fuscous discoidal lunule; medial line slightly defined by whitish on outer side, angled outwards below costa to well beyond upper angle of cell, then oblique; postmedial line formed of slight fuscous lunules with greyish lunules beyond them, excurred below costa, angled outwards at vein 4 and inwards at discal and submedian folds; subterminal line double, minutely waved, slightly incurved at discal fold and oblique below vein 4; the terminal area with dark suffusion from below apex to vein 3; a terminal series of slight black points. Hind wing grey-brown irrorated with fuscous; a slight discoidal lunule; medial line fuscous slightly defined by whitish on outer side, rather oblique; postmedial line double, minutely waved, excurred below costa and at middle and incurved at discal and submedian folds; subterminal line represented by a series of blackish points with a lunulate greyish line beyond them, slightly excurred at middle; a series of blackish points just before termen; cilia reddish brown at base; the underside ochreous-grey irrorated with fuscous, the markings slightly less distinct, the medial line curved, fuscous.

Ab. 1. Fore wing with whitish centre to reniform.

Ab. 2. Paler and more ochreous; fore wing with the point in cell and discoidal lunule black.

_Hab._ Mubuku Valley, E. Ruwenzi, 6000–7000 ft., 1 σ, 2 η type; _Uganda_, Sanji (C. Christy), 1 Φ; Entebbe (E. A. Minchin), 1 Φ; _E. Transvaal_, White R. (A. T. Cooke), 1 Φ. _Exp._ 34–38 mm.

**Ophideres fullonica** Linn. Syst. Nat. ed. xii. p. 812 (1766).

Mokia, S.E. Ruwenzi, 3500 ft., 2 η.


Mubuku Valley, E. Ruwenzi, 6000 ft., 2 σ, 1 η.

Mubuku Valley, E. Ruwenzori, 6000 ft., 1 ?.

Hypocala deflorata Fabr. Ent. Syst. iii. p. 472 (1792).

Semiliki Valley, 1 ♂. The variety plumicornis Guen.

Calpe emarginata Fabr. Ent. Syst. iii. 2, p. 82 (1792).

Mokia, S.E. Ruwenzori, 3500 ft., 2 ♂, 1 ♀. A very pale form.

Subfamily Hyperinae.

Catada pileopasta, sp. n. (Plate IV. fig. 24.)

Fore wing with a minute areole, the termen angled at vein 4.

♂. Head and thorax grey slightly tinged with reddish-brown and mixed with black; pectus and legs grey tinged with brown; abdomen grey irrorated with fuscous, the basal crests blackish. Fore wing grey tinged with brown and thickly irrorated with black; a subbasal blackish mark below the cell; antemedial line represented by obscure black marks at costa and in cell, then rather diffused, angled inwards on vein 1; traces of a sinuous medial line from cell to inner margin; postmedial line very indistinct, sinuous and rather diffused, slightly excurved beyond the cell; subterminal line indistinct, diffused, blackish, incurred below vein 3. Hind wing grey suffused with fuscous; the underside whitish with traces of oblique postmedial line.

Hab. Mubuku Valley, E. Ruwenzori, 6000 ft., 1 ♂ type. Exp. 44 mm.

Bleptina nephelopera, sp. n. (Plate IV. fig. 26.)

♀. Head, thorax, and abdomen grey-brown with a rufous tinge; palpi fuscous; legs fuscous, the extremities of tibiae and the tarsi ringed with white. Fore wing grey-brown irrorated with fuscous and slightly tinged with rufous; a slight waved subbasal line from costa to submedian fold; two oblique waved antemedial lines; orbicular and reniform defined by brown, the former a small annulus, the latter a narrow lunule; a diffused medial shade from lower angle of cell to inner margin; postmedial line double, minutely waved, excurred below costa and at middle and incurred at discal fold and below vein 4; an oblique conical blackish apical patch, traversed by the subterminal line, which is pale defined on each side by brown, minutely waved, excurred below vein 7 and at middle; a terminal series of minute black lunules; cilia with a fine pale line at base. Hind wing pale grey tinged with brown; traces of a dark discoidal lunule and curved postmedial and subterminal lines; the underside grey irrorated with brown, a dark discoidal spot, minutely waved postmedial line, and minutely waved whitish subterminal line defined by fuscous on inner side.

Hab. Mubuku Valley, E. Ruwenzori, 6000 ft., 2 ♀ type. Exp. 34 mm.
Hypena recurvata, sp. n.  (Plate IV. fig. 27.)

Palpi with the 2nd joint extending about six times length of head, the 3rd long and upturned.

♂. Head, thorax, and abdomen grey suffused with reddish-brown; palpi with some black scales mixed; fore tarsi fuscons slightly ringed with white; abdomen with the slight dorsal crests blackish. Fore wing grey suffused with brown and irrorated with blackish; a slight black line from costa beyond middle, oblique to submedian fold below origin of vein 2, then retracted to median nervure before middle; an oblique whitish shade from apex to the postmedial line at vein 6, and thence on its outer edge to submedian fold; a subterminal series of black points from the oblique shade to inner margin, excurred at middle; a fine terminal black line and fine pale line at base of cilia. Hind wing whitish suffused and irrorated with pale brown; a dark terminal line; the underside whiter slightly striated with brown except on inner area.

Hab. Mubuku Valley, E. Ruwenzori, 6000 ft., 2♂ type.  Exp. 36 mm.


Mokia, S.E. Ruwenzori, 3500 ft., 1♂.

Family Lymantriidae.

Olapa melanocera, sp. n.  (Plate IV. fig. 33.)

♀. Head, thorax, and abdomen pale fulvous; antennae black; tibiae and tarsi black above; wings uniform pale fulvous-yellow, very thinly scaled and without markings except a fine brown terminal line.

Hab. Mokia, S.E. Ruwenzori, 3500 ft., 1♀ type; Uganda (W. G. Doggett), 1♀.  Exp. 40 mm.

Leucoma atricosta, sp. n.  (Plate IV. fig. 34.)

♂. Head and tegulae pale yellow; palpi black-brown; antennae with the shaft whitish, the branches brownish; thorax and abdomen clothed with white hair, the pectus in front and fore tibiae and tarsi above black-brown; wings white, thinly scaled, the veins brownish. Fore wing with the base slightly tinged with yellow; the basal third of costal edge black; some black scales on median nervure and base of veins arising from it; a narrow black discoidal lunule.

Hab. Mubuku Valley, E. Ruwenzori, 6000 ft., 1♂ type.  Exp. 54 mm.

Euprostis croceisticta, sp. n.  (Plate IV. fig. 44.)

♀. Head and thorax white; antennae with the branches rufous; palpi except at tips, sides of head, and pectus in front orange-red; abdomen white, dorsally tinged with blackish at middle, the anal tuft yellowish. Fore wing silky white; a fiery-red
discoidal point; a subterminal series of fiery-red points below veins 8, 7, 6, 5, and 3 and above and below submedian fold, excurved below vein 7 and at middle. Hind wing silky white.

_Hab._ Mubuku Valley, E. Ruwenzori, 6000 ft., 1♂ type. _Exp._ 42 mm.

**Euproctis melalepia**, sp. n. (Plate IV. fig. 43.)

♂. Head, thorax, and abdomen ochreous-white; palpi blackish except at tips. Fore wing ochreous-white; the costal edge black-brown towards base; a black discoidal point; a slight oblique band of scattered black scales from lower angle of cell to above vein 1. Hind wing silky white.

_Hab._ Mubuku Valley, E. Ruwenzori, 7000 ft., 1♂ type. _Exp._ 42 mm.

**Euproctis orestes** Druce, P. Z. S. 1887, p. 674.

Entebbe (A. F. R. Wollaston), 1♂.


Mubuku Valley, E. Ruwenzori, 6000 ft., 2♀.

**Family Hypside.**


Mokia, S.E. Ruwenzori, 3500 ft., 1♂, 1♀.


Fort Beni, Semliki Valley, 1♀; Mokia, S.E. Ruwenzori, 3500 ft., 1♂.

**Diota reticulata**, sp. n. (Plate IV. fig. 35.)

♀. Head and thorax white; palpi with the 1st joint white tinged with yellow, the 2nd joint black, white at tip, the 3rd joint black; frons and vertex of head with black spots, the frons yellow at sides; antennae white with the branches black; tegulae and thorax with black spots, the patagia with three spots; pectus with black spots, the legs streaked with brown; abdomen white with the terminal segments yellow, dorsal and lateral series of black spots and sublateral series of black-brown patches. Fore wing pale reddish-brown, the veins, discal and submedian folds streaked with white; two white points at base and the base of inner margin white; a curved antemedial white line from subcostal nervure to vein 1; a medial white line oblique from subcostal nervure to median nervure at origin of vein 2, then incurved, met at median nervure by a curved white line from costa beyond middle, confluent with an incurved white line on discocellulars; a white line from the same point on costa as the last line, touching the discoidal line at upper angle of cell and excurved between veins 3 and 5, where it terminates; another line arising from lower angle of cell, excurved to vein 2, then
incurred to inner margin; subterminal line white, double from just below costa near apex to vein 3, then single, oblique to discal fold where it touches the postmedial line, excurved to vein 3, then erect to vein 1 near tornus. Hind wing semihyaline white with broad pale brown terminal band, intersected by white streaks on the veins, its inner edge strongly excurved; cilia white from vein 2 to tornus.

Hab. Mubuku Valley, E. Ruwenzori, 6000 ft., 1 ♂ type. Exp. 44 mm.

Mubuku Valley, E. Ruwenzori, 6000-7000 ft., 4 ♂ , 2 ♀.

Callioratis pactolicus Butl. P. Z. S. 1888, p. 82.
Mokia, S.E. Ruwenzori, 3500 ft., 1 ♂ .

Family Sphingidae.

Subfamily Macroglossinae.

Mokia, S.E. Ruwenzori, 3500 ft., 1 ♂ , 1 ♀ .

Entebbe (A. F. R. Wollaston), 1 ♀ .

Subfamily Pergidinae.

Fort Beni, Semliki Valley, 1 ♂ .

Hippotion celerio Linn. Syst. Nat. ed. x. p. 491 (1758).
Mokia, S.E. Ruwenzori, 3500 ft., 1 ♀ .

Family Eupterotidae.

Anaphe moloneyi Druce, P. Z. S. 1888, p. 673, pl. 55. f. 5.
Entebbe (A. F. R. Wollaston), 1 ♂ .

Family Notodontidae.

Zana trifasciata, sp. n. (Plate IV. fig. 37.)

♂ . Head and thorax pale red-brown, a stripe on frons and vertex of head and the vertex of thorax black-brown; palpi and lower part of frons black-brown; tibiae and tarsi black-brown, the latter with slight pale rings; abdomen whitish dorsally tinged with ochreous and with brown at base, ventrally tinged with brown. Fore wing whitish, the costal and terminal areas and inner margin tinged with ochreous and
irrorated with brown; a diffused black-brown fascia along median nervure, bifurcating at lower angle of cell and extending on vein 4 almost to termen and for a short distance along vein 3; a diffused black-brown fascia on vein 1 narrowing to a point beyond middle; a slight black-brown streak on vein 6, met by a diffused oblique fascia from termen just below apex, and forming an angle at their junction; a slight waved dark terminal line dentate on the cilia. Hind wing white with a faint ochreous tinge.

♀. Head, thorax, and fore wing browner; hind wing tinged with brown.

_Hab._ Uganda, Entebbe (E. A. Minchin, G. Legge & A. F. R. Wollaston), 2 ♂, 1 ♀ types; S. E. Leone, Port Lokko (F. S. Penny), 1 ♂; Nyasaland (R. Crawshay), 1 ♀. _Exp._ 30–42 mm.

_Ramesa citaria_ Schaus, Lep. S. Leone, p. 26, pl. 1. f. 10 (1893).

_Mokia_, S. E. Ruwenzori, 3500 ft., 1 ♂.

_Ramesa macrodonta_, sp. n. (Plate IV. fig. 38.)

Antennae of both sexes bipectinate with short branches, the apical part serrate.

Head velvety black-brown; antennæ ochreous; tegula brown mixed with ochreous; thorax grey-brown glossed with metallic blue in front; pectus, legs, and abdomen brown mixed with ochreous. Fore wing grey tinged with brown, the costal area broadly suffused with fuscous; antemedial line fine, double, black filled in with grey slightly dentate towards costa, then extremely strongly dentate, the teeth increasing in length towards inner margin; a brownish discoidal bar defined by black at sides; postmedial line black defined by grey on outer side, somewhat oblique towards costa, dentate above and below vein 5, then incurved and slightly angled outwards at vein 1, veins 6 to 2 beyond it with fine black streaks defined on each side by grey streaks, extending to the rather diffused pale subterminal line, which is oblique from apex to submedian fold, then bent outwards to tornus, and with traces of a pale waved line beyond it; a fine waved black terminal line; cilia fuscous. Hind wing with the basal half yellowish-white, the terminal half pale brown; the underside with the white area more extensive and extending to tornus, the costal area suffused with brown to near base.

_Hab._ Uganda, Mokia, S. E. Ruwenzori, 3500 ft., 1 ♂ type; S. E. Leone, Port Lokko (F. S. Penny), 1 ♂, 1 ♀; S. Rhodesia, Sebakwe, 1 ♀. _Exp._ 40–50 mm.

_Steinostaura_, gen. n.

Proboscis absent; palpi extremely minute and clothed with hair; antennæ of male bipectinate with short branches, the apical part serrate, the basal joint tufted with hair; fore tibiae fringed with long hair, the tarsal joints tufted with hair, the mid and hind tibiae with minute terminal pairs of spurs; build slender. Fore wing very narrow, the apex rounded, the termen obliquely curved; veins 3, 4 from angle of cell; 5 from
below upper angle; 6, 7, 8, 9, 10 stalked; 11 from cell. Hind wing with veins 3, 4 stalked; 5 from middle of discocellulars; 6, 7 strongly stalked; 8 from towards end of cell.

*Stenostaurea impedita* Wlk. xxxii. 583 (1865). (Plate IV. fig. 45.)
Mokia, S.E. Ruwenzori, 3500 ft., 2 ♂.

**Family Geometridae.**

**Subfamily Boarmiae.**

Mokia, S.E. Ruwenzori, 3500 ft., 1 ♀; Mubuku Valley, E. Ruwenzori, 7000 ft., 2 ♂.

*Osteodes pervittata*, sp. n. (Plate IV. fig. 46.)
♂. Head and thorax ochreous tinged with olive-brown; palpi fuscous above, ochreous below; pectus, legs, and abdomen pale ochreous slightly irroration with brown. Fore wing silky ochreous-white, the costal area slightly irroration with fuscous, the terminal area faintly tinged with brown; traces of a curved postmedial line; cilia brownish with a fine pale line through them. Hind wing silky ochreous-white with very slight dark irroration at apex. Underside of fore wing suffused with brown (except marginal areas), becoming reddish below costa, the costal and terminal areas irroration with fuscous, a black discoidal striga; hind wing ochreous-white irroration with black, costal area suffused with rufous, a rufous streak through lower part of cell from base to termen, a black discoidal point, an indistinct diffused curved postmedial band between veins 7 and 2.

*Hab.* Uganda, Mokia, S.E. Ruwenzori, 3500 ft., 2 ♂ type; Mulema (W. G. Doggett), 2 ♂, Toro (C. Christy), 1 ♂. *Exp.* 36 mm.

Mokia, S.E. Ruwenzori, 3500 ft., 1 ♂.

*Macaria trizonaria*, sp. n. (Plate IV. fig. 47.)
♂. Head and thorax whitish tinged with ochreous; palpi brown above; vertex of head with dark line; tegule tipped with brown at middle; pectus, legs, and abdomen ochreous-white irroration with brown. Fore wing ochreous-white striated with olive-brown, most thickly on basal, costal, and terminal areas; an olive-brown antemedial shade with black line on it slightly bent inwards to costa, then oblique; an oblique diffused medial olive-brown shade, blackish towards inner margin and with a black discoidal striga on it; an olive-brown bar from costa towards apex; a sinuous black postmedial line from just below vein 4 to inner margin with a broad olive-brown shade
beyond it arising from termen below apex and leaving some whitish on termen from vein 6 to tornus, and with a blackish mark on it at vein 5; an oblique white subterminal line from vein 2 to tornus defined by blackish on inner side; a terminal series of minute black lunules; cilia ochreous intersected with black. Hind wing ochreous-white irrorated with olive-brown; a slight dark discoidal point and marks on inner margin at and beyond middle; an oblique black postmedial line from vein 6 to tornus with brownish shade before it at middle; a terminal series of small black lunules; cilia intersected with black at middle. Underside yellowish-white sparsely irrorated with black-brown; small dark discoidal spots; a diffused reddish postmedial shade with blackish striae on it, forking to apex of fore wing and with slight waved dark edges on hind wing.

_Hab._ Mokia, S.E. Ruwenzori, 3500 ft., 1♂ type. _Exp._ 34 mm.

_MACARIA atriclathrata_, sp. n. (Plate IV. fig. 48.)

Head and thorax ochreous-whitish mixed with rufous and fuscous; tarsi fuscous ringed with white; abdomen pale ochreous irrorated with fuscous and with pale segmental lines. Fore wing ochreous-whitish tinged with rufous, and irrorated and striated with brown; an indistinct dark subbasal line from costa to submedian fold; antemedial line black on costal half, then brown, excurved below costa, slightly angled inwards on median nervure, then oblique sinuous; a small spot formed of diffused black scales below origin of vein 2; a slight blackish discoidal lunule; postmedial line double, oblique, brownish, minutely waved, defined on each side by prominent black striae between vein 6 and submedian fold; a faint brownish subterminal line, slightly incurved at middle and bent outwards to tornus; a blackish point on costa near apex; a fine brown terminal line with slight blackish mark below apex. Hind wing ochreous-whitish slightly tinged with rufous, the basal and terminal areas irrorated and striated with blackish; a small black discoidal spot with series of small black spots on the inner side and from lower angle of cell to inner margin; a double postmedial series of black lunules, slighter towards costa, somewhat excurved at middle where there are two black striae beyond it, and bent outwards to inner margin; a terminal series of rather diffused black lunules. Underside of both wings with the double postmedial band rather more diffused and continuous.

_Hab._ Uganda, Mubuku Valley, E. Ruwenzori, 6000 ft., 2♂ type; _Nigeria_, Old Calabar (Col. F. W. Sampson), 1♂, Sapele (Col. F. W. Sampson), 1♀. _Exp._ 28 mm.


Mokia, S.E. Ruwenzori, 3500 ft., 1♀.


Mokia, S.E. Ruwenzori, 3500 ft., 2♂.

.vol. xix.—part ii. No. 16.—December, 1909.
ZOOLOGICAL RESULTS OF THE RUWENZORI EXPEDITION.

**Tephrina deerraria** Wlk. xxiii. 962 (1861).
Mokia, S.E. Ruwenzori, 3500 ft., 2 ♂, 1 ♀.

**Tephrina oleochoera**, sp. n. (Plate IV. fig. 49.)
Head and thorax pale olive-brown; palpi blackish at tips; abdomen whitish irrorated with olive-brown. Fore wing greyish thickly mottled with pale olive-brown; indistinct minutely sinuous oblique antemedial and medial lines; a slight dark discoidal point; postmedial line oblique from costa to vein 6, incurved and double below vein 4, with some black scales on it above vein 6 and a black spot beyond it in submedian fold; a slight oblique pale shade from termen below apex to angle of postmedial line; a terminal series of slight brown striae. Hind wing whitish thickly irrorated and striated with pale olive-brown; a black discoidal point; a fine postmedial line incurved below vein 4, double from vein 6 to inner margin, the outer line rather diffused; a terminal series of dark striae. Underside of both wings whitish, tinged with ochreous and thickly mottled with olive-brown, black discoidal points and diffused postmedial line.

Ab. 1. Both wings more uniform pale olive-brown, the postmedial line very indistinctly double on fore wing, on hind wing single and with another faint line beyond it.

_Hab._ Uganda, Mokia, S.E. Ruwenzori, 3500 ft., 3 ♂, 1 ♀ type; Unyoro, Motuba (C. S. Betton), 1 ♂. _Exp_. 32–34 mm.

**Tephrina observata** Wlk. xxiii. 963 (1861).
Mokia, S.E. Ruwenzori, 3500 ft., 2 ♂.

**Zamarada chrysothrya**, sp. n. (Plate IV. fig. 50.)
Head and thorax ochreous-whitish mixed with dark brown; pectus and abdomen ochreous-whitish. Fore wing golden-hyaline slightly striated with brown, the costal and terminal areas brownish-ochreous, the costal area striated with black and silver; a brown subbasal line, black at costa; a black discoidal spot, with some silver scales on it; postmedial line brown defined by silver on outer side, minutely waved to vein 5, excurved to termen and incurred below vein 2; a minutely waved silver subterminal line with red-brown suffusion before it from costa to vein 6 and black patches at discal and submedian folds; terminal black points from apex to vein 5; a slight brown line through the cilia. Hind wing golden-hyaline slightly striated with brown; a slight brown postmedial line defined by silver on outer side, slightly excurved below vein 7 and more strongly between veins 4 and 2; a waved silver subterminal line with red-brown suffusion before it from costa to vein 6, and blackish marks at discal and submedian folds; a terminal series of black points from apex to vein 3. Underside of both wings with the terminal area suffused with dark brown; hind wing with black discoidal point.
Ketoma

Hab. Br. E. Africa, Mokia, S.E. Ruwenzori, 3500 ft., 1 $\sigma$ type; Uganda, Mulema (W. G. Doggett), 1 $\sigma$, Ketoma (W. G. Doggett), 2 $\sigma$. Exp. 24 mm.

Zamarada pleozona, sp. n. (Plate IV. fig. 51.)

Head, thorax, and abdomen grey suffused with red-brown and largely mixed with black; pectus, legs, and ventral surface of abdomen ochreous-greyish slightly mixed with fuscous. Fore wing semi-hyaline-grey tinged with brown and thickly irrorated with fuscous, the costal and terminal areas brown, thickly irrorated and strigated with black; an indistinct blackish antemedia line, oblique from cell to inner margin; a black discoidal spot; an indistinct medial line with black spot at costa, slightly excurved from costa beyond the cell to lower angle, then oblique to inner margin; postmedial line black defined by silver on outer side, slightly incurved at discal fold, excurved between veins 4 and 2, then incurved; a dentate black subterminal line defined by silver on outer side and slightly incurved below vein 2; a fine black terminal line; cilia brown mixed with fuscous. Hind wing semi-hyaline-grey irrorated with fuscous, the inner area tinged with red-brown, the terminal area red-brown thickly irrorated and strigated with black; a discoidal point and traces of a line from lower angle of cell to inner margin; postmedial line black slightly defined on outer side by greyish, excurved between veins 4 and 2; a minutely waved black sub-terminal line defined on outer side by silver scales; a fine black terminal line; cilia red-brown mixed with fuscous. Underside of both wings with the terminal area fuscous-black.

Hab. Mokia, S.E. Ruwenzori, 3500 ft., 1 $\sigma$ type. Exp. 22 mm.

Subsp. 1. Head, thorax, abdomen, and wings with the ground-colour much brighter red-brown, the semi-hyaline areas tinged with red-brown and strigated with fuscous.

Hypocrosis glaucaria, sp. n. (Plate IV. fig. 52.)

$\sigma$. Head and thorax pale purple-grey faintly tinged with green; palpi, tibiae, and tarsi tinged with rufous; abdomen white tinged with grey-green. Fore wing purple-grey with slight dark iroration; a very indistinct diffused oblique antemedia yellow-green band; a similar, more distinct, obliquely curved medial band; a white striga on upper discocellular; a diffused obliquely incurved postmedial yellow-green band arising from costa close to apex; a very indistinct, incurved, minutely waved sub-terminal line arising from termen just below apex and ending at tornus. Hind wing with the costal half yellowish-white, the inner half purple-grey with the inner margin white, the grey-green extending on termen up to vein 6; indistinct diffused yellow-green postmedial and subterminal lines from vein 4 to inner margin. Underside of fore wing white, the costal area faintly tinged with brown and the apical area strigated with brown; hind wing yellowish-white sparsely strigated with brown.

Hab. Mubuku Valley, E. Ruwenzori, 6000 ft., 1 $\sigma$ type. Exp. 46 mm.
Hypocrosis maculifera, sp. n. (Plate IV. fig. 53.)

♂. Head, thorax, and abdomen whitish tinged with pale greenish yellow, the head, pectus, legs, and ventral surface of abdomen tinged with rufous; antennæ whitish with segmental rings, and the base and tips of branches brown. Fore wing whitish suffused with pale greenish yellow and sparsely irrorated with black; an oblique diffused medial grey-green line with small blackish spots before it in cell and submedian fold; a blackish spot on upper discocellular; an indistinct obliquely incurved diffused grey-green postmedial line arising from costa near apex with small blackish spot beyond it below vein 7, a bar between veins 6 and 4, and spot in submedian fold. Hind wing pale greenish-yellow slightly irrorated with red, the inner area tinged with grey-green and irrorated with black. Underside of fore wing with some fiery-red striae on apical area, the termen from apex to vein 6 thickly striated with red.

Hab. Mubuku Valley, E. Ruwenzori, 6600 ft., 1 ♂ type. Exp. 42 mm.

Psilocerea stictogramma, sp. n. (Plate IV. fig. 54.)

♂. Head, thorax, and abdomen grey-brown slightly tinged with rufous. Fore wing grey-brown slightly irrorated with black and tinged with rufous especially on medial area; antemedial line red-brown defined on inner side by a few whitish scales and by white points at median nervure and vein 1, nearly straight and erect; a black discoidal point; postmedial line red-brown, defined on outer side by white from costa to below vein 7 where it is acutely angled outwards, then incurved and with white points on its outer edge at the veins, some whitish scales from costa before apex to its angle and a sinuous brown shade from it at vein 4 to tornus; cilia dark red-brown at base, whitish at tips. Hind wing grey-brown slightly irrorated with black and tinged with rufous except on costal and terminal areas; a black point on upper discocellular; postmedial line red-brown faintly defined on outer side by whitish, slightly angled outwards below costa, then straight; traces of an irregularly waved subterminal line; cilia dark red-brown at base, whitish at tips; the underside with the postmedial line evenly curved.

Hab. Mubuku Valley, E. Ruwenzori, 6000 ft., 1 ♂ type. Exp. 30 mm.

Psilocerea craspingonia, sp. n. (Plate IV. fig. 55.)

Both wings with the termen angled at vein 4.

♂. Head, thorax, and abdomen pale yellow slightly tinged in parts with rufous. Fore wing pale yellow very faintly speckled with pale rufous; the costa with some red-brown points; traces of an erect slightly waved rufous antemedial line; a blackish discoidal point; postmedial line dark brown and incurved from costa to below vein 7, with an oblique rufous patch with whitish centre beyond it from costa, then indistinct, rufous, incurved below vein 3, and with a dark brown patch beyond it in submedian interspace. Hind wing pale yellow faintly speckled with rufous; a blackish discoidal point; a slight postmedial line somewhat excurved at middle.
2. Fore wing with the lines more distinct, the postmedial line without brown patch beyond it in submedian interspace. Hind wing with the postmedial line more distinct from vein 3 to inner margin.

_Hab._ Mubuku Valley, E. Ruwenzori, 6000 ft., 1♂, 1♀ type. _Exp._ 38 mm.

**Psilocerea curvimargo,** sp. n. (Plate IV. fig. 56.)

Both wings with the termen evenly curved.

♂. Head, thorax, and abdomen pale yellow faintly tinged in parts with rufous. Fore wing pale yellow faintly speckled with rufous, the costa with some red-brown points; antemedial line rather diffuse, rufous, slightly sinuous; a blackish discoidal point; postmedial line red-brown and incurred from costa to below vein 7 where it is joined by an oblique striga from costa, then rufous, diffused, incurred below vein 3. Hind wing pale yellow faintly speckled with rufous; a blackish discoidal point; an oblique rather diffuse rufous postmedial line from vein 4 to inner margin.

_Ab._ 1. Fore wing with a dark brown patch beyond postmedial line in submedian interspace.

_Hab._ Mubuku Valley, E. Ruwenzori, 6000 ft., 2♂ type. _Exp._ 36 mm.

**Xylopteryx prasinaria,** sp. n. (Plate IV. fig. 57.)

♀. Head and thorax yellow-green mixed with some black; palpi whitish tinged with fuscous; antennae white ringed with black; outer edge of patagia black; metathorax whitish; pectus and legs white suffused with fuscous, the tibiae and tarsi banded black and white; abdomen whitish dorsally suffused with brown, the ventral surface white. Fore wing yellow-green thickly striated with black, the veins of medial and terminal areas with faint reddish streaks; antemedial line black, dilated at costa, very oblique and angled outwards in submedian fold, in which there is a black streak from it to postmedial line; a rather diffuse black spot on middle of costa; postmedial line black, slightly dilated and incurred at costa, oblique to vein 7, incurred at vein 6, then incurred, strongly angled inwards in submedian fold and bent outwards to inner margin; a dentate blackish subterminal line with slight whitish mark on its outer edge at vein 4; a lunulate black terminal line not quite reaching apex and tornus; cilia whitish with blackish line through them, the tips chequered with blackish. Hind wing pale yellow-green striated with fuscous, the veins of terminal half with slight reddish streaks; an indistinct oblique antemedial dark line from subcostal nervure to inner margin; a blackish discoidal point; an indistinct oblique postmedial dark line produced to short streaks on the veins; a diffused reddish subterminal band, incurred at vein 4, where there is a white mark and short black streak on its outer edge; a lunulate black terminal line not quite reaching apex and tornus; cilia fuscous intersected with whitish and with white line at base. Underside white slightly
irrorated and striated with fuscous: fore wing with blackish discoidal spot with white centre; hind wing with discoidal point; both wings with broad sinuous black subterminal band extending to termen between veins 7 and 4.

_Hab._ Mokia, S.E. Ruwenzori, 3500 ft., 1 ♀ type. _Exp._ 36 mm.

**_Terina chrysoptera_**, sp. n. (Plate IV. fig. 58.)

♂ Head, thorax, and abdomen black; first joint of palpi with white spot; frons white; vertex of head, shoulders, pro- and metathorax, and pectus with white spots; coxae and femora with slight white streaks; abdomen with dorsal, lateral, and sub-lateral series of white spots, the genital tufts yellow. Fore wing golden-orange; a very small black patch at base with white spot on it; the costal edge black; a black band with rather irregular edges from costa beyond middle where it expands to termen at vein 2; a very narrow terminal black band with waved inner edge expanding into a patch at apex. Hind wing golden-orange with very narrow terminal black band expanding somewhat at apex and into a triangular patch at vein 2. Underside of both wings with slight white mark on termen just below apex.

_Hab._ Mokia, S.E. Ruwenzori, 3500 ft., 1 ♂ type. _Exp._ 44 mm.

**Subfamily Geometrinae.**


Mubuku Valley, E. Ruwenzori, 6000 ft., 2 ♀.

**_Nemoria brunneifrons_**, sp. n. (Plate IV. fig. 59.)

Head, thorax, and abdomen whitish tinged with pale green; palpi, frons, and fore legs above deep red-brown. Fore wing pale yellow-green with slight dark irroration, the costal edge brownish; a faint dark discoidal striga; postmedial line faint, dark, minutely waved, slightly curved; a slight dark terminal line. Hind wing pale yellow-green with slight dark irroration; a faint oblique dark discoidal striga; a faint curved very slightly waved dark postmedial line; a slight dark terminal line. Underside whitish, with the costa of both wings and cell of fore wing slightly tinged with brown.

_Hab._ Mubuku Valley, E. Ruwenzori, 6500 ft., 1 ♀ type. _Exp._ 24 mm.

**_Comilena bivaria_**, sp. n. (Plate IV. fig. 60.)

♀ Head green; palpi fuscous-brown, white below; antennae white; thorax bright yellow-green with some white on dorsum in front; pectus and legs white, the fore tibiae with fuscous hair; abdomen green with red-brown dorsal patches at base and middle, the extremity and ventral surface white. Fore wing bright yellow-green; the costa white; a straight, outwardly oblique, white antemedial line; a black discoidal point; a slightly incurved white postmedial line, ending at tornus; cilia white with
a few brown scales at apex. Hind wing bright yellow-green; a minute black discoidal point; cilia white; the underside white tinged with green, an oblique green post-medial line slightly excurred at middle.


**Chlorochroma invenusta** Wulgrn. Wien. ent. Mon. 1863, p. 150.
Mokia, S.E. Ruwenzori, 3500 ft., 1 ♂ .

**Subfamily Acidaliane.**

Mokia, S.E. Ruwenzori, 3500 ft., 1 ♀ .

*Craspedia internataria* Wlk. xxii. 746 (1861).
Mubuku Valley, E. Ruwenzori, 6000 ft., 1 ♀ .

*Craspedia agrapta* Warr. ix. 498 (1902).
Mubuku Valley, E. Ruwenzori, 6000 ft., 1 ♂ .

**Subfamily Larentiane.**

Mubuku Valley, E. Ruwenzori, 6000 ft., 2 ♂ .

Mubuku Valley, E. Ruwenzori, 6000 ft., 2 ♂ , 1 ♀ .

Mubuku Valley, E. Ruwenzori, 6000 ft., 2 ♂ .

Mubuku Valley, E. Ruwenzori, 6000 ft., 1 ♂ , 1 ♀ .

Mokia, S.E. Ruwenzori, 3500 ft., 1 ♀ .

**Gonanticlea meridionata** Wlk. xxv. 1399 (1862).
Mubuku Valley, E. Ruwenzori, 6000 ft., 1 ♀ .
Mubuku Valley, E. Ruwenzori, 6000 ft., 2♂.

Larentia heteromorpha, sp. n. (Plate IV. fig. 61.)

Antennae of male bipectinate, with long branches to near apex.
♂. Head and thorax black mixed with red-brown; abdomen black mixed with white. Fore wing whitish suffused with red-brown, the basal and medial areas suffused with black, the terminal area with dark brown; four diffused minutely waved blackish lines on basal area; antemedial line double, diffused, blackish, waved; a small black discoidal spot; the postmedial area with four waved lines excurred between discal fold and vein 2; a lunulate white subterminal line slightly defined on each side by blackish; a terminal series of pairs of black points on each side of the veins. Hind wing white; the inner margin with some slight dark strie beyond middle and towards tornus; a terminal series of pairs of black points on each side of the veins; the underside tinged with rufous and irrorated with a few black scales, a black point at upper angle of cell, traces of a postmedial line with short black streaks on the veins, excurred below costa and at middle, a subterminal series of slight blackish spots.

Ab. 1. Fore wing whiter slightly tinged with rufous and with ante- and postmedial white bands, the medial area not suffused with black, the discoidal spot on a white patch.

Ab. 2. Fore wing strongly tinged with rufous, the medial area rather broader and partly suffused with black; hind wing with black discoidal point, a medial line angled outwards at vein 4, then waved, and rather diffused lunulate subterminal line.

Hab. Mubuku Valley, E. Ruwenzori, 6000–12,600 ft., 9♂ type. Exp. 28–32 mm.

Larentia chlorostola, sp. n. (Plate IV. fig. 62.)

Antennae of male minutely serrate, with long bristles and cilia.
♂. Head and thorax bright yellow-green mixed with some black; palpi black; pectus, legs, and abdomen brownish-white, the last with some green and black on dorsum. Fore wing bright yellow-green; some black on base of costa; subbasal line blackish, sinuous, from costa to inner margin; antemedial line blackish, slightly waved; a black discoidal striga; a black striga from middle of costa and a somewhat oblique and sinuous line from costa to vein 4 just beyond the cell; postmedial line blackish, more prominent and double at costa, angled outwards at veins 6 and 4, then oblique and minutely waved; a black bar from costa towards apex, followed by a black patch with minutely dentate outer edge; a small bidentate subterminal black mark between veins 6 and 4; a terminal series of black points in pairs on each side of veins; cilia white chequered with fuscous. Hind wing white with a faint brownish tinge; a minute black discoidal point; the underside sparingly irrorated with brown, an indistinct slightly sinuous postmedial line with black points on the veins.

Hab. Mubuku Valley, E. Ruwenzori, 8000 ft., 1♂ type. Exp. 26 mm.
Cidaria thermochroa, sp. n. (Plate IV. fig. 63.)

Antennæ of male somewhat laminate and almost simple.

♂. Head and thorax fulvous-yellow tinged with violaceous-white; pectus and legs whitish irrorated with brown; abdomen white tinged with red-brown and dorsally suffused with fulvous-yellow at base. Fore wing with the basal area fulvous-yellow, the rest of wing violaceous-grey suffused with red-brown, the medial part of costal area and the areas just beyond antemedial and postmedial lines whiter; three curved minutely waved brown subbasal lines; antemedial line rather diffused, brown slightly defined by white on inner side, angled outwards below costa, then slightly sinuous, with two fine brown lines before it and two beyond it; the medial area with three waved brown lines; postmedial line double filled in with white, the outer line less distinct, slightly excurred below costa and at middle, then oblique; an indistinct waved white subterminal line met by an oblique white streak from apex; a fine brown terminal line; cilia white, with strong brown line near base. Hind wing whitish slightly tinged with brown; three indistinct waved brownish medial lines and a postmedial line excurred at middle; termen brownish with fine dark terminal line; cilia white, brownish at middle and with dark points at the veins; the underside irrorated with brown, the lines more distinct, a curved subterminal line.

Hab. Mubuku Valley, E. Ruwenzori, 6000 ft., 1 ♂ type. Exp. 36 mm.

Family Saturniidae.

Nudaurelia dione Fabr. Ent. Syst. iii. (1) p. 410 (1793).

Some pupae from which a crippled specimen emerged.


Moka, S.E. Ruwenzori, 3500 ft., 1 ♂, 1 ♀.

Goodia oriens, sp. n. (Plate IV. fig. 42.)

Goodia hollandi Butl. P. Z. S. 1898, p. 430 (♀ nec ♂).

♂. Head and tegulae grey mixed with brown; palpi and frons chocolate-brown; antennæ pale rufous, the basal joint whitish; patagia rufous; thorax brown; pectus and legs brown mixed with grey, the tarsi rufous; abdomen red-brown. Fore wing grey thickly irrorated with dark brown, the basal inner area pinkish or pale rufous; antemedial line blackish, oblique from costa to median nervure on which it is bent inwards, then oblique to inner margin on which there is some dark brown suffusion beyond it; medial area with alternating white and dark striae on costa; an oblique black discoidal line; a faint diffused oblique brown shade beyond the cell from vol. xix.—Part ii. No. 17.—December, 1909.
ZOOLOGICAL RESULTS OF THE RUWENZORI EXPEDITION.

postmedial line to inner margin; postmedial line blackish, waved, evenly curved; a triangular fuscous shade on termen from just below apex to vein 4; a fine dark terminal line; cilia fuscous on apical half, pale rufous towards tornus. Hind wing pale grey-brown, the basal half suffused with pinkish or pale rufous; an indistinct curved brown postmedial line; a slight patch of fuscous suffusion on terminal area below apex; a fine dark terminal line; cilia ochreous at base, brown at tips; the underside grey thickly irrorated with black-brown, the basal half clothed with rough brown hair except at costa, the postmedial line blackish, oblique to vein 6, excurred to vein 5, then incurved.

♀. Paler; fore wing with the lines almost obsolete.


Family Uraniadè.

Strophidia erycinaria Guen. Ur. & Phal. ii. p. 30 (1857).

Mokia, S.E. Ruwenzori, 3500 ft., 2 ♀.

Family Lasiocampidè.

Pseudometa castanea, sp. n. (Plate IV. fig. 28.)

♂. Head and thorax chestnut-brown with a slight olive tinge; abdomen rather darker red-brown. Fore wing chestnut-brown with a slight olive tinge; antemedial line dark, somewhat diffused and slightly curved; a slight white discoidal bar; postmedial line dark, somewhat diffused towards costa, oblique from costa to vein 6, excurred to vein 5, then incurved and waved; a faint oblique shade from costa to vein 6 at the subterminal line which is dark, oblique, and minutely dentate. Hind wing darker red-brown with indistinct, diffused, obliquely curved, dark postmedial line; cilia rufous, whitish at tips; the underside with the costal edge whitish, a very diffused blackish obliquely curved medial shade.

Cocoon. Nepenthes-shaped, hanging from leaf by a stalk at one side, white banded with blackish.

Hab. Uganda, Mokia, S.E. Ruwenzori, 3500 ft., 1 ♂ type, Entebbe (E. A. Minchin), 1 ♂. Exp. 38 mm.

Taragama butiti Beth.-Baker, A. M. N. H. (7) xviii. p. 344 (1906). (Plate IV. fig. 29.)

Hab. Mokia, S.E. Ruwenzori, 3500 ft., 1 ♀.

Taragama diplocyma, sp. n. (Plate IV. fig. 30.)

♂. Head and thorax deep rufous; palpi at tips and lower part of frons whitish;
antennae with the shaft whitish; tegulae and patagia above edged with white; pectus whitish at sides; tarsi slightly ringed with white; abdomen whitish, the ventral surface rufous with whitish segmental lines. Fore wing deep rufous, the terminal area paler except at apex; an oblique white striga at base, the base of inner margin white; a slight dark discoidal bar; a curved white postmedial line from costa to vein 5, expanding at costa; a white line from costa towards apex to middle of inner margin, excurred between veins 7 and 5, incurred to vein 4, excurred above veins 3 and 2, then incurred; cilia grey at base, white at tips. Hind wing white, the terminal area suffused with rufous narrowing to a point at tornus; a dark mark on termen and cilia just before tornus; an oblique white postmedial band defined on inner side by rufous suffusion from costa to vein 2; cilia white.

_Hab._ Uganda, Mokia, S.E. Ruwenzori, 3500 ft., 1 ♂ type; Entebbe (C. Christy), 1 ♀. _Exp._ 68 mm.

**Anadiasa leucocyma**, sp. n. (Plate IV. fig. 31.)

♂. Head, thorax, and abdomen red-brown. Fore wing red-brown; traces of a curved dark antemedial line; a small white spot at lower angle of cell; a very minutely waved dark postmedial line with a slightly paler band on its inner side except at costa, excurred from costa to vein 4, then incurred; a curved, waved, white subterminal line with dark lunules on its inner side. Hind wing reddish-brown, irrorted with silvery-grey, the basal area rather paler; an oblique, slightly curved, brown medial line with traces of another line beyond it; a subterminal series of slight dark spots with faint whitish lunules on their outer side. Underside of fore wing with curved medial line, the subterminal lunules indistinct; hind wing with the inner area pale yellowish, the medial line curved, the subterminal lunules distinct.

_Hab._ Mubuku Valley, E. Ruwenzori, 5000 ft., 1 ♂ type. _Exp._ 48 mm.

**Anadiasa reducta** Wik. vi. 1411 (1855).

Mokia, S.E. Ruwenzori, 3400 ft., 1 ♀.

**Chrysopsycne leucostigma**, sp. n. (Plate IV. fig. 41.)

♂. Head, thorax, and abdomen rather pale rufous; antennae with the shaft white, the branches blackish; tarsi whitish at tips. Fore wing olive-ochreous; a subbasal white spot below the cell; the first line almost medial, brownish, rather oblique; a brownish discoidal striga; postmedial line brownish, slightly oblique from costa to vein 7, then inwardly oblique to middle of inner margin and slightly incurred at vein 2; a diffused oblique white subterminal band from below apex to just above inner margin, incurred at vein 5 and excurred at vein 4; cilia faintly chequered with whitish. Hind wing pale olive-brown; a faint oblique pale band from lower angle of cell to tornus; a rather more distinct diffused pale subterminal band from costa near apex.
to tornus, incurved at vein 5 and excurred at vein 4; cilia pale at base, brownish at tips; the underside pale olive-ochreous, a white patch on costa near base, an indistinct rather diffused dark subterminal line from costa near apex to above tornus, incurved at vein 5 and excurred at vein 4.

_Hab._ Mubuku Valley, E. Ruwenzori, 5000 ft., 1 ♂ type. _Exp._ 46 mm.

Mokia, S.E. Ruwenzori, 3500 ft., 2 ♂, 2 ♀.

_Beralade strigifascia, sp. n._ (Plate IV. fig. 39.)

♂. Head and thorax white mixed with red-brown; sides of palpi and frons red-brown; antennae with the branches rufous; tegulae, except at base, and vertex of thorax, except metathorax, red-brown; abdomen whitish, suffused with red-brown at base. Fore wing white mixed with red-brown; some white at base of inner margin; a small white discoidal spot; an oblique dark brown subterminal line from below apex to just above inner margin, crossed by short dark streaks on the veins and with diffused white band on its inner side; cilia white. Hind wing white, with two slight rufous marks above tornus and a fine brownish terminal line; the underside with the costal area irrorated with brown.

♀. Fore wing rather paler and more uniform in colour.

_Hab._ Mokia, S.E. Ruwenzori, 3500–4000 ft., 4 ♂ type; Lake Edward, 1 ♀. _Exp._ 38 mm.

Mokia, S.E. Ruwenzori, 3500 ft., 1 ♂, 1 ♀.

Family _Limacodidae_.

_Cœnobasis amena_ Feld. Reis. Nov. pl. 82. f. 14 (1874).
Mokia, S.E. Ruwenzori, 3500 ft., 1 ♂.

Mokia, S.E. Ruwenzori, 3500 ft., 4 ♂.

_Apulda incincta, sp. n._ (Plate IV. fig. 25.)

♂. Head and thorax white, the latter edged with red-brown on shoulders and patagia, on which it expands into patches; palpi and lower part of frons yellow tinged with red-brown; antennae yellow; pectus and legs red-brown and yellow, the former with some white at sides; abdomen yellow, white at base. Fore wing red-brown, the
terminal area from postmedial line white with a yellow patch at apex; a large white patch from base to end of cell extending to below costa and at middle expanding to submedian fold; a white streak on middle of inner margin; a postmedial white patch on costa with a spot below it below vein 6 and an oblique elliptical patch from below vein 3 to vein 1, the outer edge of brown area obliquely excurved from costa to vein 5, then incurred; no terminal line. Hind wing pure white, without terminal line; the underside with red-brown streak on costa from base to beyond middle.

_Hab._ Uganda (C. Christy), 1 ♂, Mokia, S.E. Ruwenzori, 8500 ft., 3 ♀ type; Br. E. Africa, Machakos (R. Crawshay), 2 ♂; Br. C. Africa, Zomba (A. R. Andrew), 1 ♂. _Exp._ 24 mm.

**Tetraphleps ruficeps**, sp. n. (Plate IV. fig. 36.)

♂. Head and tegulae rufous, the latter whitish at tips; palpi, thorax, and abdomen dark chocolate-red; fore legs with the extremities of tibiae and the tarsal joints with silvery-white spots, the mid and hind tarsi ringed with whitish. Fore wing dark chocolate-brown suffused over greyish, the basal area and the area before subterminal line darkest; a blackish discoidal spot; postmedial line with blackish striga from costa, then very indistinct, oblique; subterminal line blackish, excurved to near termen at middle, then almost obsolete. Hind wing uniform dark silky reddish-brown.

_Hab._ Mubuku Valley, E. Ruwenzori, 6000 ft., 1 ♂ type. _Exp._ 26 mm.

**Family Arbelidae.**

**Marshalliana bivittata** Auriv. Ent. Tidskr. 1901, p. 126.

Entebbe (A. F. R. Wollaston), 1 ♂.

**Marshalliana arcifera**, sp. n. (Plate IV. fig. 64.)

♂. Head and thorax yellowish mixed with rufous; palpi blackish; antennae with the shaft white, the branches blackish; abdomen whitish suffused with rufous. Fore wing yellowish tinged with rufous, the veins streaked with brown, except on costal area; a curved white fascia from base below median nervure to extremity of cell, then bent downwards to tornus; a whitish fascia on inner margin to near tornus; a brown discoidal bar; the interspaces beyond the cell whitish except on costal area; a diffused brown subterminal band bent outwards to apex and excurved at middle; cilia yellowish-rufous tipped with white. Hind wing white, the veins streaked with red-brown; a brown discoidal bar; cilia tinged with red-brown at base.

♀. Rather paler and less tinged with rufous.

Family COSSIDAE.

Mokia, S.E. Ruwenzori, 3500–4000 ft., 3 ♂.

DUOMITUS CLIMANJARENSIS Holland, Entom. xxv. Suppl. p. 94 (1892); id. Pr. U.S. Nat. Mus. xviii. p. 252, pl. vii. f. 8.
Fort Beni, Semliki Valley, 1 ♂.

Family ZYGÆNIDÆ.

POMPOSTOLA VICARIA Wlk. i. 207 (1854); Butl. Ill. Het. B. M. i. p. 47, pl. 10. f. 4.
Lake Tanganyika (A. F. R. Wollaston), 1 ♀.

Family PYRALIDÆ.

Subfamily CRAMBINE.

Mokia, S.E. Ruwenzori, 3500 ft., 2 ♀.

Subfamily ANERASTIANÆ.

EMMATHEDES LENTISTRIGALIS, sp. n. (Plate IV. fig. 65.)
♂. Head and thorax ochreous tinged with rufous; palpi rufous at sides; abdomen reddish-ochreous. Fore wing ochreous tinged with rufous, the veins defined by slight rufous streaks; a rather diffused rufous streak below subcostal nervure from base to apex and another below submedian nervure to lower angle of cell; a dark discoidal point; dark points beyond the cell on veins 6 to 2 and two below the cell in submedian fold; a terminal series of dark points. Hind wing pale ochreous.

Hab. GOLD COAST, Ajinah (G. C. Dudgeon), 1 ♂ type; Br. E. AFRICA, Machakos (R. Crawshay), 1 ♂; UGANDA, Mokia, S.E. Ruwenzori, 3500 ft., 1 ♀. Exp., ♂ 28, ♀ 40 mm.

Subfamily PYRALINE.

Mokia, S.E. Ruwenzori, 3500 ft., 1 ♀.

Mokia, S.E. Ruwenzori, 3500 ft., 1 ♂, 1 ♀.
Subfamily Hydrocampinae.

Mokia, S.E. Ruwenzori, 3500 ft., 1♂.

Subfamily Pyraustinae.

SYLEPTA OVALIS Wlk. xviii. 636 (1859).
Mokia, S.E. Ruwenzori, 3500 ft., 1♂.

SYLEPTA SABINUSALIS Wlk. xviii. 708 (1859).
Mubuku Valley, E. Ruwenzori, 6000 ft., 1♂, 1♀.

Pilocrocis patagialis, sp. n. (Plate IV. fig. 66.)

Patagia of male fringed with thick large scales on upper edge.

Head and thorax cupreous-brown, the vertex of head whitish, the vertex of thorax purplish-brown in male; palpi white at base, black at tips; pectus and legs whitish; abdomen whitish, dorsally tinged with brown. Fore wing cupreous-brown, the costal area yellow from antemedial to beyond postmedial line; antemedial line blackish defined by whitish on inner side, obliquely curved; a black point in middle of cell and narrow discoidal lunule; postmedial line blackish, defined on outer side by a trifid white patch from below costa to vein 5, points below veins 5, 4, 3, an elliptical spot in submedian interspace and point above inner margin, bent outwards between veins 5 and 2, then retracted to below angle of cell; a fine white line at base of cilia. Hind wing greyish-brown; a faint oblique dark discoidal lunule defined by whitish on outer side; a dark postmedial line with white patch beyond it below costa, bent outwards, slightly waved and defined by white on outer side between veins 5 and 2, then retracted to below end of cell and with white band on outer side; a fine white line at base of cilia.

Hab. Mubuku Valley, E. Ruwenzori, 6000 ft., 1♂, 1♀ type. Exp., ♂ 34, ♀ 30 mm.

Pilocrocis laralis, sp. n. (Plate IV. fig. 67.)

♂. Head and thorax pale brownish-olive; palpi white at base, fuscous at tips; pectus and legs whitish; abdomen pale brownish-olive; the ventral surface white. Fore wing pale glaucous-grey, the costal half tinged with brown; antemedial line blackish, obliquely curved, a black point in middle of cell and discoidal lunule; postmedial line blackish, minutely dentate, slightly bent outwards between veins 5 and 2, then retracted to below angle of cell; cilia fuscous with a fine pale line at base. Hind wing pale glaucous-grey; a blackish discoidal spot; postmedial line rather diffused, fuscous, slightly excurved and minutely waved between veins 5 and 2,
then retracted and oblique to inner margin above tornus; cilia fuscous with a whitish line at base.

Mubuku Valley, E. Ruwenzori, 6000 ft., 1 ♂ type. Exp. 32 mm.

Mokia, S.E. Ruwenzori, 3500 ft., 1 ♀.

**Glyphodes stollalis** Guen. Delt. & Pyr. p. 293, pl. 3, f. 11 (1854).
Mokia, S.E. Ruwenzori, 3500 ft., 1 ♂.

**Glyphodes aniperalis**, sp. n. (Plate IV. fig. 68.)

♀. Head and thorax pale brownish-ochreous mixed with some fuscous and white; palpi whitish, the 2nd and 3rd joints fuscous at sides; legs whitish with slight fuscous rings at extremities of tibiae; abdomen pale brownish-ochreous mixed with some fuscous and with slight white and black segmental rings on terminal half, the ventral surface whitish. Fore wing pale brownish-ochreous, the costa whitish on medial area; an oblique blackish subbasal line; antemedial line double, black filled in with white, oblique; a medial white band defined by black at sides, not reaching costa, enclosing a small round ochreous black-defined spot in upper part of cell, narrowing below the cell and ending in a point above inner margin; a narrow black-defined white discoidal lunule; an oblique elliptical spot below end of cell with black centre and white annulus defined by black; an oblique wedge-shaped postmedial white patch from below costa to vein 2; subterminal line double, black filled in with white, ending in a dentate white mark below costa with small white spot below it; a blackish mark before termen in discal fold; a fine black terminal line slightly defined by whitish on inner side; cilia ochreous at base with fuscous medial line and whitish tips. Hind wing pale brownish-ochreous suffused in parts with fuscous; a hyaline patch beyond end of cell, bent inwards below lower angle; postmedial line double, black filled in with white, slightly curved and bent outwards to tornus; a fine black terminal line with white band on its inner side and some fuscous suffusion before it; cilia ochreous at base, with fuscous medial line and whitish tips.

*Hab.* Mubuku Valley, E. Ruwenzori, 6000 ft., 1 ♀ type. Exp. 26 mm.

**Polythlipta guttiferalis**, sp. n. (Plate IV. fig. 69.)

♂. Head and thorax ochreous tinged with brown, some white on patagia and metathorax; palpi fuscous-brown, white below; pectus and legs white, the fore tibiae with black band, the mid tibiae black on inner side; abdomen white with dorsal ochreous-brown stripe, serrate at sides and with white streak on it on basal segment. Fore wing semihyaline-white, the costal area tinged with ochreous; the cell, submedian interspace to antemedial line, and base of inner margin brownish-ochreous,
with small round white spot in middle of cell, elliptical spot in end of cell, and bidentate subbasal spot below the cell, all defined by black; antemedial line blackish, arising from median nervure, forming an oblique peninsula filled in with ochreous to middle of inner margin, then retracted to near subbasal spot and ending at vein 1; postmedial line double, brown filled in with pale ochreous, the outer line dentate outwards, the inner inwards, arising at vein 7, oblique to vein 3 near termen, then retracted, the inner line to lower angle of cell, both lines nearly erect from vein 3 to inner margin; an apical patch suffused with fuscous, its inner edge dentate; a somewhat dentate dark terminal line, enclosing some ochreous on termen between veins 3 and 2; cilia white, fuscous at apex. Hind wing hyaline-white, a dark oblique discoidal striga; postmedial line double, brown, minutely dentate and filled in with pale ochreous, angled outwards on vein 3 to near termen; blackish patches on termen at apex, between vein 3 and submedian fold where it encloses whitish spots, and at tornus.


Mubuku Valley, E. Ruwenzori, 8000 ft., 1 ♀.

PLATE IV.

Fig.
1. Epitoxis albicincta, ♂
2. " " ♂ p. 104.
3. Apisa metarctioides, ♂
4. Melarchia pulvacea, ♂
6. " " ♂
7. Agrota cleopis, ♀
8. Episilia rhodopera, ♂
9. Leucophaea leucopaga, ♀
10. Boralia pyrostrata, ♀
11. " phaeopasta, ♀
12. Arthronia chrysopyela, ♂
13. Aethria semiluna, ♂
14. Calymnia ethiopica, ♀
15. Calamanis obliquifascia, ♂
16. Xylostola olivata, ♀
19. Plusia cupricornica, ♂ p. 112.
20. " aranea, ♀
22. Parathermes sublata, ♀
23. Acantholopes ochrota, ♂
28. Pseudomete castanea, ♂
29. Taragama butiti, ♀ p. 130.
30. " diplocyma, ♂
32. Remigia pectinata, ♂ p. 110.
33. Oalpa melanocera, ♀
34. Leucoma atricosta, ♂ p. 116.
35. Plecta reticulata, ♀ p. 117.

Fig.
36. Tetraphleps rusiceps, ♂ p. 133.
38. Rumesa macrorchis, ♂ p. 119.
40. Melarchia flavicornis, ♂ p. 104.
41. Chrysopsycie leucostigma, ♂ p. 131.
42. Goodia orientis, ♂ p. 129.
43. Euproctis melalepia, ♂ p. 117.
45. Steanota echinata, ♂
46. Ostodes perforata, ♂
47. Mocaria trizonaria, ♂
48. " atrilathra, ♂ p. 121.
49. Tepheina atrochroa, ♂
50. Zamarata chrysotrya, ♂
51. " phaeona, ♂
52. Hyperplacitis glaucaria, ♂
53. " maculifera, ♂
54. Psilocereus stictifrons, ♂ p. 124.
55. " espinigalia, ♂
56. " curvimargo, ♂
57. Xylopteryx prosinaria, ♀
58. Terina chrysopyela, ♂
60. Comihowa bivaria, ♀
61. Larentia heteromorpha, ♂ p. 128.
62. " chlorostola, ♂
63. Cidaria theriochroa, ♂ p. 129.
64. Marshalliana arceifera, ♂ p. 133.
67. " laralis, ♂
68. Glyphodes aniferalis, ♀
RUWENZORI EXPEDITION REPORTS.

12. LEPIDOPTERA RHOPALOCERA.

By F. A. Heron.

Received and read November 17, 1908.

[Plate V.*]

The collection of Lepidoptera Rhopalocera, consisting of about a thousand specimens belonging to (roughly) 170 species, of which eight are new to science, was made by the Hon. Gerald Legge and Mr. A. F. R. Wollaston.

The most abundant species, of which series of more than 20 examples were taken, were Mycalesis matuta, Salamis anacardii nebulosa, Uranothauma delatorum, Castalius margaritaceus, Celytius equatorialis, Azanus natalensis, and Nyctitona medusa.

The eight new species belong respectively to the genera Gnophodes, Acrceia, Charaxes, Uranothauma, Harpodyreus (Lycænæ), Oxypalpus, Ceratrichia, and Chioneigia (Hesperiæ). In addition to these, five new varieties or subspecies are here described.

To the list of species collected by the Ruwenzori Expedition have been added the species collected by Mr. G. F. Scott Elliot in the same district, as well as a few taken by Prof. E. A. Minchin, Mr. W. G. Doggett, Mr. F. J. Jackson, and Sir H. H. Johnston.

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<th>Nymphalidæ.</th>
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<td>Hesperiæ</td>
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* For explanation of the Plate, see p. 178.
Family *Nymphalidae*.

*Subfamily Danainae.*

**Amauris gogani.**


1 ♂. Mubuku Valley, E. Ruwenzori. 6000–13,000 ft. 18. ii. 06.

1 ♀. Kasamaza's, Ruwenzori. 5300 ft. 18–23. iv. 1895. (G. F. Scott Elliot.)

(As *Amauris albimaculata* Butler, ♀, P. Z. S. 1895, p. 722.)

**Amauris echionia Jacksoni.**


9 ♂♂. Mubuku Valley, E. Ruwenzori. 6000–13,000 ft. 7, 13. i. & 5. ii. 06.

2 ♀♀. " " 14. i. & 11. ii. 06.

**Amauris Ellioti.**


1 ♂. Ruwenzori. 5600 ft. (G. F. Scott Elliot.)

11 ♂♂. Mubuku Valley, E. Ruwenzori. 7. i., 5. ii., & 16, 17. iii. 06.

**Danais (Tirumala) petiverana.**


2 ♂♂, 2 ♀♀. Mokia, S.E. Ruwenzori. 3500 ft. 26. i., 5. ii., & 1, 17. v. 06.

**Danais (Limnas) chrysippus.**


*forma chrysippus.*

4 ♂♂. Mubuku Valley, E. Ruwenzori. 6000–13,000 ft. 26. i. 06.

3 ♀♀. Mokia, S.E. Ruwenzori. 3500 ft. 25. iv. 06.

*forma dorippus.*

*Danais dorippus* Klug, Symb. Phys. t. 48, text (1845).

2 ♀♀. Mokia, S.E. Ruwenzori. 3500 ft. 27. iv. 06.

*forma alcippus.*


1 ♂. Mubuku Valley, E. Ruwenzori. 6000–13,000 ft. 25. i. 06.

1 ♀. Mokia, S.E. Ruwenzori. 3500 ft. 19. iv. 06.
Subfamily Satyriinae.

Gnophodes gregari. (Plate V. figs. 1, δ; 2, Φ.)


4 δ δ. Mubuku Valley, E. Ruwenzori. 25. i. & 13. ii. 06.
3 Φ Φ. .. , 5. ii. 06.

Belongs to the section with the δ sex-tuft covering nearly two-thirds of the interspaces between the submedian and second median branches of the fore-wing.

The female—hitherto unrecorded—is, except for the absence of the tuft, generally like the male, but the ground-colour is a little paler, and, as is usual in the genus, the transverse band on the upperside of the fore-wing is nearly twice the width of that in the male.

Gnophodes parmena. (Plate V. fig. 10.)


1 Φ. Mokia, S.E. Ruwenzori. 3500 ft. 16. vi. 06.

Gnophodes minchini, sp. n. (Plate V. fig. 3, δ.)

Expanse: 70 mm. at vein 8.

δ.—Upperside. Fore-wing deep sepia-brown varying to tawny-olive, the colour being lightened on the basal half by dense mouse-coloured hairs; the external margin with a sprinkling of grey scales; the only marking consists of a curved ill-defined subapical band of dull ochraceous-rufous scaling, extending from the costa (where it is most pronounced) to the middle of the external margin. Hind-wing similar in colouring to the fore-wing, but without ochraceous markings, and with a large elliptical sex-patch of cream-white scales lying near the costa and normally hidden by the fore-wing; this patch is 11 mm. long, being three-quarters of the length of the cell.

Underside. The markings closely similar to those of G. chelys Fab. (Plate V. fig. 8), but the brown colouring is varied with a pinker hue than is usual in the genus. Fore-wing as in G. chelys, but the sex-patch of cream-white scales is longer and does not extend below vein 1. Hind-wing differs from that of G. chelys in that the curved median line is more sinuous than zigzag and is less varied with pale blotches.

This species is further readily distinguishable from its closest ally, G. chelys, by the following structural characters:

Fore-wing more nearly approximating an equilateral triangle in shape, the costa being proportionately shorter and the external margin proportionately longer; the length of the cell is therefore relatively greater as compared with the wing-length; the angulation of the wing at vein 8 is more obtuse and the projection at 6 more acuminate, while that at 3 is hardly noticeable. Vein 1 is strongly curved and

* For figure of fore-wing of Gnophodes diversa Butler, δ, see Plate V. fig. 9.
subparallel with the internal margin, which forms a regular convex curve; whereas in<br>G. chelys vein 1 is much straighter, while the internal margin is slightly sigmoid, that<br>is, with an S-like curvature; finally, the lower discocellular is less incurved, so that<br>the lower distal angle of the cell is much less acute. Hind-wing with the angulation<br>at vein 3 less pronounced and the distal angle of the cell less acute.

_Hob._ Uganda.

2 ♂ ♂. Entebbe, Uganda. (Prof. E. A. Minchin.)

_Gnophodes minchini, forma n. magniplaga._ (Plate V. fig. 4, ♂.)

This remarkable form, of which a single specimen was taken in the Mubuku Valley,<br>E. Ruwenzori, on Feb. 13, 1906, at a height of 6000-13,000 feet, is conspicuous for<br>the great size of the sex-patches. That on the hind-wing approximately equals<br>the area of the cell (14 x 5 mm.), and extends to an equal distance from the base, the colour<br>of the component scales being rather more creamy than in the typical form. The<br>patch above vein 1 on the underside of the fore-wing measures 13 mm. in length, and<br>is more acuminate externally than in _G. minchini._

_Melanitis leda._

_Papilio leda_ Linn. Syst. Nat. ed. x. p. 474 (1758), ex parte.

4 ♂ ♂, 1 ♀. Mubuku Valley, E. Ruwenzori. 6000-13,000 ft. 30. i. & 20. ii. 06.<br>Unocellate form.

1 ♂, 4 ♀ ♀. Mokia, S.E. Ruwenzori. 3500 ft. 30. iv. & 12. v. 06.<br>Ocellate form.

1 ♂. Mokia, S.E. Ruwenzori. 3500 ft. 12. v. 06.<br>Fulvescent form.

_Mycalesis dentata._

_Mycalesis dentata_ E. M. Sharpe.

6 ♂ ♂, 2 ♀ ♀. Mubuku Valley, E. Ruwenzori. 6000-13,000 ft. 16, 24, 29. i. &<br>2. 5. ii. 06.<br>1 ♂. Kivata, Ruwenzori. 6000-8000 ft. (G. F. Scott Elliot.)

_Mycalesis (Monotrichitis) angulosa._


1 ♂. Mubuku Valley, E. Ruwenzori. 5000-7000 ft. 9. i. 06.<br>2 ♂ ♂. Mokia, S.E. Ruwenzori. 3000-5000 ft. 22. v. 06.<br>

_Mycalesis safitza._


4 ♂ ♂, 2 ♀ ♀. Mokia, S.E. Ruwenzori. 7, 9, 10. v. 06.
Mycalesis vulgaris?


2 ♂ ♂. Kivata, Ruwenzori. 6000–8000 ft. (*G. F. Scott Elliot.*)

1 ♀. Kasamaza’s, Ruwenzori. 5300 ft. (*G. F. Scott Elliot.*)

Mycalesis campina.


1 ♂. Mokia, S.E. Ruwenzori. 3500 ft. 10. v. 06.

2 ♂ ♂. Kasamaza’s, Ruwenzori. 5300 ft. 13–23. iv. 06. (*G. F. Scott Elliot.*)

(As *Mycalesis technatis* Hew., *fide* Butler, P. Z. S. 1895, p. 723.)

Mycalesis saga.


1 ♂. Mokia, S.E. Ruwenzori. 3500 ft. 19. v. 06.

Mycalesis matuta.


21 ♂ ♂, 3 ♀ ♀. Mubuku Valley, E. Ruwenzori. 6000 ft. 31. xii. 05. 5000–13,000 ft. 8, 25. i. & 16. iii. 06.

Mycalesis saussurei.


1 ♀. Ruwenzori. 5000 ft. ix. 1900. (*Sir H. H. Johnston.*)

Mycalesis aurivillii.


5 ♂ ♂. Mubuku Valley, E. Ruwenzori. 6000–13,000 ft. 14. i. 06.

3 ♂ ♂. Kivata, Ruwenzori. 6000–8000 ft. (*G. F. Scott Elliot.*)

Henotesia perspicua.


6 ♂ ♂, 1 ♀. Mokia, S.E. Ruwenzori. 3500 ft. 5, 10, 12. v. 06.

1 ♂. Ruwenzori. 5000 ft. ix. 1900. (*Sir H. H. Johnston.*)

Henotesia sp.

2 specs. Kivata and Kasamaza’s, Ruwenzori. 6000–8000 ft. (*G. F. Scott Elliot.*)

Two very worn specimens.
ZOOLOGICAL RESULTS OF THE RUWENZORI EXPEDITION.

Neocenynra gregorii.
Neocenynra gregorii Butler, P. Z. S. 1894, p. 560, pl. xxxvi. f. 2.
1 σ. Ruwenzori. 5600 ft. (G. F. Scott Elliot.)
1 σ. Kivata, Ruwenzori. 6000–8000 ft. (G. F. Scott Elliot.)

Yphthima itonia.
4 σ, 1 φ. Mokia, S.E. Ruwenzori. 3500 ft. 17. v. 06.
1 σ. Mubuku Valley, E. Ruwenzori. 6000–13,000 ft. 24. ii. 06.

Yphthima albida.
8 σ, 8 φ. Mubuku Valley, E. Ruwenzori. 6000–13,000 ft. 3, 9. i. 06.
1 σ. Kivata, Ruwenzori. 6000–8000 ft. (G. F. Scott Elliot).
1 σ, 1 φ. Kasamaza’s, Ruwenzori. 5500 ft. 13–23. iii. (G. F. Scott Elliot.)
1 σ. Ruwenzori. 5000 ft. ix. 1900. (Sir H. H. Johnston.)

Yphthima simplicia.
3 σ, 2 φ. Mokia, S.E. Ruwenzori. 3500 ft. 16. iv. & 2, 10. v. 06.
A very large form: expanse of largest female, 42 mm.

Subfamily Acræinae.

Planema latifasciata.
Planema latifasciata E. M. Sharpe, P. Z. S. p. 635, pl. xlvi. f. 6 (1891).
2 σ, 9 φ. Mubuku Valley, E. Ruwenzori. 5000–13,000 ft. 30. xii. 05,
4. i. & 5. ii. 06.

Acræa sotikensis.
13 σ, 2 φ. Mubuku Valley, E. Ruwenzori. 5000–16,000 ft. 9, 17, 20. i. 06.
4 σ. Kasamaza’s, Ruwenzori. 5300 ft. 13–23. iv. (G. F. Scott Elliot.)

Acræa alicia.
1 σ. Mokia, S.E. Ruwenzori. 3500 ft. 16. vi. 06.
ACREA UVUI.


18 $\delta$ $\&$ 1 $\varphi$. Mubuku Valley, E. Ruwenzori. 5000–7000 ft. 31. xii. 05; 13. i. & 5. ii. 06.

1 $\delta$. Kasamaza's, Ruwenzori. 5300 ft. 13–23. iv. (G. F. Scott Elliot.)

ACREA VIVIANA.

Acrea viviana Staudinger, Iris, p. 204 (1896).

1 $\varphi$. Mokia, S.E. Ruwenzori. 3500 ft. 17. v. 06.

ACREA ACERATA, forma VINIDA Hew.


1 $\delta$, 1 $\varphi$. Mokia, S.E. Ruwenzori. 3500 ft. 1, 14. v. 06.

ACREA TERPSICHORE.

Papilio terpsichore Linn. Syst. Nat. ed. 10, p. 466 (1758).


2 $\delta$ $\&$ 1 $\varphi$. Mokia, S.E. Ruwenzori. 3500 ft. 22. v. & 16. vi. 06.

The males belong to the form described as A. rougetii Guérin, while the female is inseparable from some examples of A. manjaca Boisd. from Madagascar.

ACREA ENCEDON.


2 $\delta$, 2 $\varphi$. Mokia, S.E. Ruwenzori. 3500 ft. 26. iv. & 5. v. 06.

2 $\delta$, 2 $\varphi$. Mubuku Valley, E. Ruwenzori. 6000–13,000 ft. 20, 26. i. 06.

1 $\delta$. Kasamaza’s, Ruwenzori. 5300 ft. 13–23. iv. (G. F. Scott Elliot.)

The typical form A. encedon Linn., the pale form A. lycia Fab., and the form A. alcippina Aurivillius are all represented.

ACREA ITURINA.


1 $\varphi$. Mubuku Valley, E. Ruwenzori. 6000–13,000 ft. 26. i. 06.

1 $\delta$. Kivata, Ruwenzori. 6000–8000 ft. v. (G. F. Scott Elliot.)

ACREA LYCOA.

Acrea lyca Godart, Enc. Méth. ix. p. 239 (1819).

1 $\varphi$. Semliki Valley. 10. viii. 06.
ACRAEA TORUNA.


1 ♂. Mubuku Valley, E. Ruwenzori. 5000–7000 ft. 15 i. 06.

1 ♂. Kasamaza's, Ruwenzori. 5300 ft. 13–23 iv. (G. F. Scott Elliot.)

1 ♀. Kivata, Ruwenzori. 6000–8000 ft. v. (G. F. Scott Elliot.)

ACRAEA DISJUNTA.


3 ♂ ♂. Mubuku Valley, E. Ruwenzori. 6000–13,000 ft. 24 ii. 06.

ACRAEA ASBOLOPLINTHA.


10 ♂ ♂, 1 ♀. Mubuku Valley, S.E. Ruwenzori. 6000–13,000 ft. 31 xii. 05;

17, 26 i. 06.

Mokia, E. Ruwenzori. 3500 ft. 24 v. 06.

1 ♂. Ruwenzori. 7000 ft. ix. 1900. (Sir H. H. Johnston.)

ACRAEA PELASGIUS.

_Acraea pelasgius_ Grose Smith.

1 ♂. Semliki Valley. 15 viii. 06.

ACRAEA AMICILAE, sp. n. (Plate V. fig. 11, ♂.)

Expanse: 55–62 mm.

Structure.—Fore-wing slightly arched costally, the external margin being a little concave and the internal nearly straight. The greatest breadth is about half the costal length, and the external and internal margins are subequal, being about two-thirds of the length of the costa. Hind-wing with the costal margin almost straight, the external margin sub-semicircular to the tornus, whence the internal runs straight till near the body, where it curves sharply to the base.

♂.—Upperside. Colour rosy-orange, deeper on the hind-wing and with black markings; cilia black. Fore-wing with the costal margin black, except for a short orange line at the base; the space between vein 11 and the costal nervure orange dusted with black; the apical area, beyond the line formed by vein 3 and the end of the cell, black, with a small subquadrate orange patch between veins 3 and 4, and a semitransparent subapical band formed of 5 contiguous spots lying between veins 4 and 11; of these spots those between vein 4 and the stalk of veins 7–9 are large, more or less transparent, and dusted with orange scales, while those between the stalk and vein 11 are small, elongate, and ill-defined markings of orange scales; the inner margin has a broad border of black scaling, which extends a little beyond vein 1, especially near the base; the external border below vein 3 is also broadly black, which
colour extends inwards along vein 2; this border is marked throughout with narrow orange streaks between the veins, those between 2 and 4 being most distinct and uniting with the discal orange markings, while the apical streaks are more or less evanescent; beyond the middle of the cell is a large subquadrate black patch, and the proximal corner of space 2 is filled in with a large triangular black patch, which is continued from its lower angle as a transverse bar across space 1 in a direction parallel to the external margin. **Hind-wing** with an angulated double row of black spots at about one-third from the base, but with most of the spots obscured by two suffusions of black scales radiating from the base; the upper of these occupies the base of space 8, the lower extends longitudinally for about three-fourths of the cell-length and transversely from the lower part of the cell to the inner margin; the hind border may be described either as orange with short black streaks on the veins, which tend to fuse together internally so as to form a broad, more or less continuous, black submarginal band; or the border may be described as broadly black, with rounded orange spots between the veins.

**Underside.** **Fore-wing** with the underside markings showing through, but with the dark orange replaced by flesh-pink, and with a distinct double black spot at the end of the cell; the borders of the wings greyish, the external border with pale orange inter-nervular streaks. **Hind-wing** generally pale pinkish, darker between the discal rows of spots, bluish-grey externally, and with pale orange triangular inter-nervular patches, the veins narrowly darkened distally; the double row of black spots shows up very clearly, being bent at right angles between veins 5 and 6; the spots occur as follows: one in space 1 a; two in 1 b; two in 2 c; the outer one being V-shaped; one in the inner angle of space 2; two larger ones in the apical part of the cell; two in space 5; one in 6; and two larger ones in 7.

The head, thorax, and legs dorsally black, with the usual yellow spots. The abdomen black, the segments having their posterior margins and a rounded spot on each side pale yellow; the ventral surface yellow, with a dark median stripe. Palpi ochraceous, with stiff black hairs. Antennae black, a little less than half the length of the costa, the ovate flattened club being one-sixth the length of the shaft.

**Hab.** E. Ruwenzori.

11 ♂ ♀. Mubuku Valley, E. Ruwenzori. 5000–13,000 ft. 24. ii. & 16, 17. iii. 06.

The banding of the hind-wings recalls that of *A. baxeri* Sharpe (of which only females have been seen by me), but the angulation of the hind-wing band is at interspace 3 in *A. baxeri* and 5 in *A. amicitiae*. In both species the distribution of the red and the black at internal margin of the hind-wing is similar, and the shape of the fore-wing is what might be expected in forms of different sexes.
Subfamily Nymphalinae.

Argynnis excelsior.

Argynnis excelsior Butler, P. Z. S. 1895, p. 729, pl. xlii. f. 4.

8 ♂♂, 3 ♀♀. Mubuku Valley, E. Ruwenzori. 5000–13,000 ft. 15, 24. i. & 23. iii. 06.

12. ♂♂ and ♀♀. Ruwenzori. 5600–9000 ft. (G. F. Scott Elliot.)

Hypolimnas salmacis platydera.


1 ♂. Mokia, S.E. Ruwenzori. 3500 ft. 17. iv. 06.

Hypolimnas anthedon.


1 ♀. Mubuku Valley, E. Ruwenzori. 6000–13,000 ft. 6. i. 06.

Hypolimnas misippus.


6 ♂♂. Mokia, S.E. Ruwenzori. 3500 ft. 17. iv. 06.

1 ♂. Mubuku Valley, E. Ruwenzori. 6000–13,000 ft. 29. i. 06.

Vanessula milca buchneri.


1 ♀. Mokia, S.E. Ruwenzori. 3500 ft. 27. vi. 06.

Antanartia scheneia.


8 ♂♂, 1 ♀♀. E. Ruwenzori. 6000–13,000 ft. 7. ii. 06.

2 ♂♂. Ruwenzori. 9000 ft. (G. F. Scott Elliot.)

Antanartia hippomene.


6 ♂♂, 2 ♀♀. Mubuku Valley, E. Ruwenzori. 5000–13,000 ft. 28. i. to 3. ii. 06.

3 ♂♂, 2 ♀♀. Ruwenzori. 6000–9000 ft. (G. F. Scott Elliot.)

Antanartia abyssinica.

Pyrameis abyssinica Felder, Reise der Novara, Lep. iii. p. 397 (1867).

8 ♂♂. Mubuku Valley, E. Ruwenzori. 5000–13,000 ft. 3, 5. ii. 06.

4 ♂♂, 1 ♀. Ruwenzori. 5000–8000 ft. (G. F. Scott Elliot.)
CATACTOPTERA CLOANTHE.


11 ♂  ♀, 2 ♀. Mokia, S.E. Ruwenzori. 3500 ft. 19, 28. iv. & 2, 4. v. 06.

**Precis aenone.**


11 ♂  ♀, 2 ♀. Mokia, S.E. Ruwenzori. 3500 ft. 25, 29, 30. iv. & 2, 7. v. 06.

**Precis hierta cebrene.**


4 ♂  ♀, 2 ♀. Mokia, S.E. Ruwenzori. 3500 ft. 17, 26. iv. & 2, 7. v. 06.

**Precis sophia infracta.**

*Papilio sophia* Fabricius, Ent. Syst. 3, i. p. 248 (1793).


1 ♂. Mokia, S.E. Ruwenzori. 3500 ft. 1. v. 06.

1 ♂. Semiliki Valley. 10. viii. 06.

1 ♂. Ruwenzori. (G. F. Scott Elliot.)

**Precis terea.**


9 ♂  ♀, 1 ♀. Mokia, S.E. Ruwenzori. 3500 ft. 2, 14. v. 06.

1 ♂. Mubuku Valley, E. Ruwenzori. 5000–7000 ft. 23. iii. 06.

**Precis pelarga.**

*Papilio pelarga* Fabricius, Syst. Ent. p. 513 (1775).

1 ♂. Mubuku Valley, E. Ruwenzori. 13,000–16,000 ft. 13. ii. 06.

A wet-season form.

**Precis milonia.**


1 ♀. Ruwenzori. 6000–8000 ft. (G. F. Scott Elliot.)

**Precis antilope.**


2 ♂  ♂. Mokia, S.E. Ruwenzori. 3500 ft. 30. iv. & 5. v. 06.

The specimens belong to the wet-season form, *P. simia.*
Precis octavia sesamus.


1 ♂, 1 ♀. Mokia, S.E. Ruwenzori. 3500 ft. 26. iv. & 5. v. 06.

The specimens belong to the wet-season form *P. natalensis* Staudinger (Ex. Schmett. p. 101, 1885).

Precis tugela pyriformis.


Junonia pyriformis Butler, P. Z. S. 1895, p. 726.

8 ♂♂, 2 ♀♀. Mubuku Valley, E. Ruwenzori. 5000–13,000 ft. 25. xii. 05;

9, 17. i. & 16. iii. 06.

4 ♂♂. Ruwenzori. 5000–8000 ft. (*G. F. Scott Elliot*.)

Precis stygia gregorii.


Junonia gregorii Butler, P. Z. S. 1895, p. 726.

1 ♀. Semliki Valley. 10. viii. 06.

1 ♂. Ruwenzori. 6000–8000 ft. (*G. F. Scott Elliot*.)

Precis chorimene.

Vanessa chorimene Guérin, Icon. Règne Anim., Ins. texte, p. 476 (1844).

12 ♂♂, 4 ♀♀. Mokia, S.E. Ruwenzori. 3500 ft. 30. iv. & 4. v. 06.

Both the wet- and the dry-season phases are represented in the series taken.

Salamis parhassus æthiops.


1 ♂, 1 ♀. Mokia, S.E. Ruwenzori. 3500 ft. 16. vi. 06.

1 ♀. Mubuku Valley, E. Ruwenzori. 13,000–16,000 ft.

Salamis anacardi nebulosa.


19 ♂♂, 3 ♀♀. Mokia, S.E. Ruwenzori. 3500 ft. 15–24. v. 06.

Pseudargynnis hegemone nyassæ.


4 ♂♂, 1 ♀. Mubuku Valley, E. Ruwenzori. 5000–13,000 ft. 4. i. & 23. iii. 06.

1 ♀. Kasamaza’s, Ruwenzori. 5300 ft. Between 13 & 23. iv. (*G. F. Scott Elliot*)
Catena angustatum.

_Euomma angustatum_ Felder, Reise Novara, Lep. iii. p. 425 (1867).

1 ♂. Fort Beni, Semliki Valley. 21. vii. 06.

_Aterica galene extensa_, subsp. n.

_Papilio galene_ Brown, New Ill. of Zool. p. 94, t. 37 (1776).

13 ♂ ♂, 2 ♀ ♀. Mokia, S.E. Ruwenzori. 3500 ft. 16, 17. vii. 06.

These specimens seem to belong to a local form, differing constantly from the West-African form (Gambia-Calabar) in having larger spots on the fore-wing (above) and a larger, more oblong than wedge-shaped, patch on the hind-wing. The latter character is also found in a male from the Congo in the Bates Collection.

In the females the fore-wing does not differ from that of the typical West-African form, but the hind-wing discal patch of cream-white, cream, or pale ochreous-yellow is, like that of the male, more oblong in shape. The suffusion beyond the disc to the margin has darker streaks in the interspaces between the veins, as in the Angolese-Congo form, but both from this and from the Gaboon form the Ruwenzori specimens are readily separable by the smaller size of the spots on the fore-wing.

_Harma theobene._


1 ♂. Fort Beni, Semliki Valley. 21. vii. 06.

_Neptis saclava marpessa._


11 ♂ ♂, 1 ♀ ♀. Mokia, S.E. Ruwenzori. 3500 ft. 20. iv. & 7, 18. v. 06.

1 ♀. Mubuku Valley, E. Ruwenzori. 6000–13,000 ft. 23. i. 06.

_Neptis agatha._


1 ♂, 1 ♀ ♀. Mokia, S.E. Ruwenzori. 3500 ft. 18, 19. v. 06.

4 ♂ ♂. Mubuku Valley, E. Ruwenzori. 5000–13,000 ft. 17. i. & 23. iii. 06.

Ruwenzori. 5000 ft. (G. F. Scott Elliot.)

_Neptidopsis ophione velleda._


3 ♂ ♂, 1 ♀ ♀. Mubuku Valley, E. Ruwenzori. 5000–13,000 ft. 13. ii. & 16. iii. 06.

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Eurytela dryope angulata.


*Eurytela dryope var. angulata* Aurivillius, Rhop. Æth. p. 154 (1869).

5 ♂ ♂, 2 ♀ ♀. Mokia, S.E. Ruwenzori. 3500 ft. 1–22. v. 06.

Ergolis enotrea.


2 ♂ ♂, 2 ♀ ♀. Mokia, S.E. Ruwenzori. 3500 ft. 29. iv. & 17. v. 06.

1 ♂. Kivata, Ruwenzori. 6000–8000 ft. v. (G. F. Scott Elliot.)

1 ♀. Semlik Valley. 10. viii. 06.

Ergolis pagensteckeri. (Plate V. fig. 6, ♂.)

*Ergolis pagensteckeri* Suffert, Iris, xvii. p. 125 (1904).

1 ♂. Entebbe, Uganda. 3. v. 95. (F. J. Jackson.)

1 ♂. Entebbe, Uganda. 11. xii. 95. (F. J. Jackson.)

1 ♂. Mulema, Uganda. v. 03. (W. G. Doggett.)

1 ♀. Mulema, Uganda. v. 03. (W. G. Doggett.)

1 ♂. Kivata, Ruwenzori. 6000–8000 ft. v. (G. F. Scott Elliot.)

*forma n. aurantiaca.* (Plate V. fig. 5, ♂.)

4 ♂ ♂. Mubuku Valley, E. Ruwenzori. 5000–13,000 ft. 6. i. & 17. iii. 06.

1 ♂. Ruwenzori. (G. F. Scott Elliot.)

2 ♂ ♂. Toro. 16. vi. 1900. (Sir H. H. Johnston.)

This variety differs from the typical form in the following respects:—

**Upperside.** The ground-colour is paler and more luteous, while the transverse rows of elongate spots and lunules are orange-ochraceous (instead of chestnut), those nearer the base being darker and the external rows considerably paler, especially in the fore-wing; these markings are outlined, as usual, with olive-brown edgings, which make them stand out very conspicuously on the paler ground-colour. The marginal band is still chestnut on the fore-wings, but more orange on the hind-wings.

**Underside.** The chestnut bands are slightly reduced in width and stand out clearly from the light yellow-grey ground.

Transitional forms exist in which the basal bands in the cell of the fore-wing are coloured mesially with redder scales (even in the typical form a few more warmly coloured scales are traceable) and show indications of the narrow discal band which, with its thin orange lunules, is such a conspicuous feature in *E. aurantiaca*.
Byblia anvataara achelea.

_Hypanis anvataara_ Boisd. Fauna Madag. p. 56, t. 7. f. 5 (1833).
_Hypanis achelea_ Wallengren, Rhop. Caff. p. 29 (1857).

7 ♀♂. Mokia, S.E. Ruwenzori. 3500 ft. 25. iv. to 22. v. 06.
1 ♂. Mubuku Valley, E. Ruwenzori. 6000–13,000 ft. 13. ii. 06.

All the specimens belong to the wet-season form.

Charaxes eupale dilutus.

1 ♂. Mubuku Valley, E. Ruwenzori. 6000–13,000 ft. 23. i. 06.

Charaxes candiope var. viridicostatus.

2 ♀♂. Mubuku Valley, E. Ruwenzori. 6000–13,000 ft. 3, 5. ii. 06.

Charaxes fulvescens monit r.

_Charaxes fulvescens_ Aurivillius, Ent. Tidskr. xii. p. 216 (1891).
3 ♀♂. Mubuku Valley, E. Ruwenzori. 6000–13,000 ft. 16. i. & 2. iii. 06.
8 ♀♂. Mokia, S.E. Ruwenzori. 3500 ft. 20. v. 06.

Charaxes epijasius.


_forma typica._
1 ♂. Mokia, S.E. Ruwenzori. 3500 ft. 5. v. 06.

_var._
1 ♂. Mokia, S.E. Ruwenzori. 3500 ft. 26. v. 06.

This is a variety with the pale blue on the hind-wing reduced to a few small spots. It corresponds to _C. harrisoni_ E. M. Sharpe, which is a variety of _Charaxes saturnius_.

Charaxes etheocles.


_forma kirkii._
3 ♀♂. Mokia, S.E. Ruwenzori. 3500 ft. 5. v. 06.
CHARAXES OPINATUS, sp. n. (Plate V. fig. 7, o.)

Expanse 78 mm. o.

Above the species has the appearance of a member of the C. ethalion group, and below resembles some ally of C. anticlea, thus apparently forming a link between these two divergent groups.

In wing-shape hardly differing from the same sex of C. ethalion, except that the tornus of the fore-wings is a little less acute, while the hind-wings are rather more produced and the tail at vein 4 is a third longer than that at 2, which latter is about the usual ethalion length, though in that species the proportionate length of the tails is reversed.

Upperside. Head, body, and wings seal-brown, the wing-border narrowly black; cilia white on hind wings and interrupted with black at veins on fore-wing. Fore-wing uniform seal-brown. Hind-wing with a submarginal band about 1·5 mm. wide, which is of an ochraceous rufous-brown colour, except at the tornus, where are a few gallstone-yellow scales; the submarginal spots, of the usual ethalion shape, are grey-blue scaled with white centres, the white colour disappearing in the more costalward spots. A narrow (1 mm.) post-discal macular band of tawny brown to dull brown from vein 7 to 1 o, subparallel to the external margin.

Underside. The markings in yellowish and olivaceous greys suggest the brown to light red ones of anticlea o, but on the fore-wing the discal band is proportionately wider, more expanded costalwards, straighter externally, and more broken internally; the fine sinuate line which bounds externally the next patch of the ground-colour is, from vein 1 to the costal margin, closer to the discal band, which thus exceeds the width of the ground-colour band, except near the costa. On the hind-wings the space outside this sinuate line is olivaceous green, with a faint line of demarcation from the band of purple-grey ground-colour which adjoins it externally; the outer border is gallstone-yellow, becoming more rufous towards the costa. The dark linear mark internally delimiting the lunules of purple and grey scales, and the marginal line of hind wings, black.

The underside of the palpi and breast, and the tarsi of the fore legs, pale Naples yellow. Underside of the thorax and abdomen, and the tibiae and tarsi of the mid and hind legs, of the same grey shade as the underside of the wings.

Hab. E. Ruwenzori.

3 o. Mubuku Valley, E. Ruwenzori. 5000–13,000 ft. 3. ii. & 8. iii. 06.

Family LEMONIIDÆ.

ABISARA GERYON.

Abisara geryon Staudinger, Ex. Schmett. p. 239, t. 88 (1887–88).

1 o. Fort Beni, Semliki Valley. 21. vii. 06.
Family Lycaenidae.

Pseuderesia despecta.


1 ♂. Fort Beni, Semliki Valley. 21. vii. 06.

Tingra clarensis.


7 ♂ ♂, 1 ♀. Mokia, S.E. Ruwenzori. 3500 ft. 29. iv. 06.

Megalopalpus simplex.

*Megalopalpus simplex* Röber, Iris, p. 51, t. 4, f. 4, ♀ (1886).


Lachnocnema d'urbani.


1 ♂, 1 ♀. Mokia, S.E. Ruwenzori. 3500 ft. 16. iv. & 18. vi. 06.

Virachola antalus.


1 ♀. Mokia, S.E. Ruwenzori. 3500 ft. 16. vi. 06.

Hypolyccena pachalica.


Hypolyccena philippus.

*Papilio philippus* Fabricius, Ent. Syst. iii. 1, p. 283 (1793).

1 ♀. Fort Beni, Semliki Valley. 21. vii. 06.

Hypolyccena jacksoni.


2 ♂ ♂. Mubuku Valley, S.E. Ruwenzori. 5000–13,000 ft. 5. ii. & 7. iii. 06.

Axioceres harpax.

*Papilio harpax* Fabricius, Syst. Ent. p. 829 (1775).

1 ♂, 1 ♀. Mokia, S.E. Ruwenzori. 3500 ft. 14, 24. v. 00.

Lycaenesthes amara.


7 ♂ ♂, 3 ♀ ♀. Mokia, S.E. Ruwenzori. 3500 ft. 27, 30. iv. & 4. v. 06.
LYCÆNESTHES LARYDAS.


1 ♂. Mokia, S.E. Ruwenzori. 3500 ft. 17. vi. 06.

LYCÆNESTHES SCINTILLULA.

Lyccanesthes scintillula Holland, Psyche, vi. p. 50 (1891).

1 ♂. Semliki Valley. 10. viii. 06.

LYCÆNESTHES CRAWSHAYI.

Lyccanesthes crawshayi Butler.

1 ♂. Mokia, S.E. Ruwenzori. 3500 ft. 25. iv. 06.

LYCÆNESTHES LEMNOS.


4 ♂, 2 ♀. Mokia, S.E. Ruwenzori. 3500 ft. 20. iv. & 4, 7. vi. 06.


LYCÆNESTHES HOBLEYI.


LYCÆNESTHES OTACILIA.


5 ♂, 1 ♀. Mokia, S.E. Ruwenzori. 3500 ft. 30. iv. & 4. v. 06.

PHILYARIA CYARA.

Lyccena cyara Hewitson, Ex. Butt. v. Lyccena, pl. i. ff. 9, 10 (1876).

1 ♂. Mubuku Valley, E. Ruwenzori. 5000–7000 ft. 23. iii. 06.

HARPENDYREUS, gen. n.

Fore-wing: greatest breadth about two-thirds of the length; cell half as long as the wing, the discocellular veins (the lower and middle only being present) nearly in a straight line and almost at right angles to the costa; vein 12 about as long as the cell; vein 11, which is well separated from 12, arises at about two-thirds from the base of the cell, and 10 about halfway between that and the end of the cell, where 6 and the stalk of 8 and 9 arise together; 8 finishes before apex, and 9 arises a little nearer apex than cell; 5 a little nearer 4 than 6; 2 at the same distance from the base as 11; and 3 one-third the distance between 2 and 4.

Hind-wing: greatest breadth nearly three-quarters of the length; the cell has the upper border slightly arched and in the same line as 6; 7 arises about one-sixth from
the end of the cell; 5 a little nearer 6 than 4; the upper discocellular nearly straight, inclined inwards, the lower slightly convex inwardly; together they are about equal to half the cell-length, which is a little more than half the wing; 3 and 4 arising together at the lower corner of the cell; and 2 at about two-thirds from the base of the cell.

Antennal club more gradual than in Uranothauma, and about one-sixth of the total antennal length.

The subporrect palpi clothed with projecting hairs, which are about half the length of the second joint; the third joint also hairy.

The fore tarsi with an apical spine in the male and with a claw in the female.

No sex-mark present in the type species.

Above, the appearance of this species suggests a Scolitantides, while the underside recalls the markings of the Uranothauma group, especially of U. antinorii. Following the classification of Aurivillius, it would be assigned to Cupido in the section Cacyreus Butler (proposed to replace the preoccupied Hyreus Hübner), on the strength of the underside marking and the freedom of vein 11 of the fore-wing from vein 12; but the shape of the hind-wings, with the costa arched in both sexes (instead of being somewhat sigmoid as in the males of Cacyreus), the entire absence of a tail in both sexes, the very much greater separation of veins 11 and 12 in the fore-wing, and the rather more irregularly cuneiform shape of the hind-wing cell—extending about half the length of the wings, with a slightly inward inclination of the discocellars costally,—seem points sufficient to give at least subgeneric value; and preferring to treat it as generic, I propose the name Harpendyreus for the form under discussion.

Harpendyreus reginaldi, sp. n.  (Plate V. figs. 23, 24, ♂; 25, 26, ♀.)

Greatest wing-expanse: ♂ 30 mm., ♀ 32 mm. Antennæ 8 mm.

Structure.—Fore-wing: in both sexes the costa is slightly arched; the apex evenly rounded, the costa making more than two-thirds of a right angle with the external margin, which is but slightly convex; the tornus bluntly rounded and the interior margin nearly straight. Hind-wing: in the male the costa is well arched, the external margin convex, and the internal margin forming a flattened curve, less arched than the costal. The ♀ similar, but the costa a little less arched; at vein 1 a slight non-caudate projection, the tornus evenly rounded, and the internal margin slightly sinuate distally.

♂.—Upperside. Fore-wing: dull blue (much discoloured, probably with a violet gloss), the costal margin with a narrow edging of dark brown, the external margin with a broad well-defined border of dark brown (2 mm. wide), the cilia white with brown patches at the veins. Hind-wing: with the outer brown border much broader than in the fore-wing, ill-defined internally and partly suffused with lighter cinnamon scaling; between veins 1 and 2 is a black ocellus, which is scaled with blue-white externally and bounded inwardly by a partial ring of almost tawny scales.
Underside. Cream-white, with sepia-brown markings. **Fore-wing:** a russet-brown powdering of scales partially obscures all but the outer third of the wing, and the basal markings appear indistinctly as merely a darker shade of the same russet-colour; in the cell a bar about 1 mm. wide, with lighter borders, with its dorsal corner at the origin of vein 2; at the end of the cell a similar bar, traversed by the discocellulars, and having lighter inner and outer edges. Above each of these, at the costal border, a small dark spot, the outer really a very much inwardly displaced member of the discal band; beyond these, one-third from the external margin and parallel with it, a transverse curved row of roughly-reniform spots between the veins; owing to the limits of the interspaces the spots are longest antero-posteriorly towards the internal margin, and the lowest one is rather oblique. About 1·5 mm. from the external margin a row of six lunulate spots, the lowest much displaced inwardly; between these spots and the margin, with their convex side fitting into the concavity of those of the inner row, are six elongate subsemicircular markings. The border is narrowly outlined with dark sepia. **Hind-wing:** the two external rows of spots are similar to those in the fore-wing, save that the outer spot in interspace 1 is replaced by a black ocellus pupilled with silvery-blue scales; but the transverse band of subreniform spots from the costal to the inner margin almost forms a zigzag, the fourth spot from the costa being the most distal. The basal spots show the general arrangement common in *Uranotherauna*; a spot at the end of the cell, and, basal to this, three irregular rows of spots, some with internal pale scaling, the costal spot of the outer row being much larger than the others and reniform in shape.

♀.—**Upperside.** The poor condition of the specimen makes the true coloration of the female rather a matter of conjecture; the cilia are a good deal damaged, but appear to be uniformly brown. **Fore-wing:** violet scales can be traced on the basal half and behind the middle of the cell; the external dark border is a little broader than that of the male and less sharply defined; while there is an additional dark transverse band (representing the discal row of spots beneath), separated from the border by an indistinct narrow paler band. **Hind-wing:** no violet scales can be traced with certainty on the darkened basal area; the indistinct pale submarginal band of the fore-wing is continued from the costa to vein 2; and the black ocellus lacks the inner edging of tawny scales.

Underside. The markings generally similar to those of the male, but the ground-colour distinctly more grey. **Fore-wing:** the discal row of spots is more consolidated than in the male, being also straighter near the costa and with the lowest spot not oblique.

The thorax and abdomen dull blue, with a few browner scales above; below lighter, more grey.

**Hab.** E. Ruwenzori.

1 ♂, 1 ♀. Mubuku Valley, E. Ruwenzori. 6000-13,000 ft. 7, 14. ii. 06.
Uranothauma nubifer.


1 σ. Mubuku Valley, E. Ruwenzori. 6000-13,000 ft. 28. i. 06.

Uranothauma delatorum, sp. n. (Plate V. figs. 21, σ ; 22, θ.)

_Hyrene falkensteinii_ Butler (nee Dewitz), P. Z. S. 1895, p. 733.

Wing-expanse: φ 32-35 mm., θ 30-32 mm.

Very closely allied to _U. falkensteinii_ Dewitz.

Structure.—Fore-wing with the costa very slightly curved, the internal margin straight and about four-fifths of the length of the costa, the external margin slightly convex outwardly. In some specimens veins 12 and 11 nearly touch one another, in others they anastomose; in the male vein 6 arises from 7 beyond the end of the cell, thus shortening the sex-streak in space 6, while in the female 6 arises at the end of the cell. Hind-wing about equal in length to the internal margin of the fore-wing, the costal margin slightly sigmoid, the external margin convex, and the anal angle distinctly produced; the general shape being the same as in _U. cordatus_ E. M. Sharpe; the tail on vein 2 is much longer and thicker than that of _U. falkensteinii._

σ.—Upperside. Dark cinnamon-brown, darker towards the external margin and with a general purple gloss. Fore-wing with the sex-streaks appearing as internervular blackish lines, the cilia broadly chequered with dark brown and white. Hind-wing with the costal and internal borders sepia-brown and lacking the purple gloss, and there are usually a few metallic blue-green scales at the anal angle, and again just above the tail; cilia dirty white, narrowly interrupted with brown on the veins.

Underside. Fore-wing: ground-colour varied from light sienna-brown at base to a cloudy light sepia-brown distally, being greyish white in the median area. The markings are sepia-brown edged with creamy white: at base of the discoidal cell a small dark triangular patch; beyond this a bar at the origin of vein 2, reaching to the costa, and another on the discocellular veins; a post-median band starts from the costa, where it is very broad, and continues towards the tornus as far as vein 2, becoming gradually narrower and less distinct; the lateral edges of this band are more or less sinuate, and its costal edge is interrupted by a small white spot; between this band and the discocellular bar there is a small dark spot on the costa; midway between the discocellular and post-median bands lies an oblong transverse spot in space 2, with a similar one adjoining it in space 1, this latter being sometimes absent. In _U. nubifer_ the spot in space 2 is always more or less attached to the post-median band, in _U. delatorum_ never. Hind-wing: ground-colour lustrous creamy white. The markings are of the darkest shade of sepia-brown and comprise a roughly triangular basal marking extending halfway along the inner margin, the apex being a little beyond the origin of vein 2, where it touches the discal band, which extends from the
costa to the internal margin. The spots in spaces 7 and 6 form roughly a biconcave vertical bar; that in space 5 is much longer than the one in 6 and extends nearer the outer margin, but its inner half is broadly interrupted by a large white spot; the spot in space 4 is much the longest of the series, its base being on the discocellular and its point extending much beyond that in space 5, its posterior side being almost twice the length of its costal; that in space 3 is a mere triangle reaching distally to the level of the spot in space 5; in space 2 is again another triangular spot extending externally to the level of that in 6; in space 1 is an oblong spot, a little outwardly displaced, its outside edge on a level with that in space 3; about one-third from the base of the costa is a small triangular patch, having its base on the costa and its apex about the middle of space 7. There is a thin marginal line, and on either side of the base of the tail is a large black spot scaled with metallic green outwardly. Beyond the discal band there extends, from the costa to the inner margin, a broken sepia shade, reaching its maximum width of about a quarter of the wing-breath in spaces 2 and 3 (where, in some cases, it even extends inwards to the discal band), thence becoming much narrower and more faint towards the costa.

♀.—Upperside. Much paler than in the ♂ and with a much more restricted pinkish-violet gloss. Fore-wing blackish at the base, with a broad ill-defined dark brown border on the external margin and the following dark brown markings: a large subquadrate spot at the end of the cell; a broad curved subapical band, broadest on the costa and gradually narrowing to a point on vein 3; midway between and behind these markings is an elongate transverse patch between veins 3 and 1. Hind-wing with the pinkish gloss less evident; the metallic spots near the tail more distinct than in the male.

Underside. As in the male.

The antennae blunt with fine white rings at the joints and creamy scales at the base of the underside of the club. Head with palpi, thorax, abdomen, and legs black above, dull cream below, except the third joint of the palpi, which is black.

_Hab._ E. and S.E. Ruwenzori.

1 ♂. Mokia, S.E. Ruwenzori. 3500 ft. 20. v. 06.

20 ♂♂, 2 ♀♀. Mubuku Valley, E. Ruwenzori. 5000-13,000 ft. 16, 23, 28. i. & 5. ii. 06.

Ruwenzori. 5600 ft. (G. E. Scott Elliot.)

At first sight the warm-flushed coppery colour of the upperside and the internervular and intracellular distribution of the sex-streaks of the male give a deceptive resemblance to the same sex of _U. falkensteinii_ Dewitz (Plate V. figs. 10, ♂; 20, ♀), and the colouring of the under surface is similar in both. But the wing-shape is that of _U. nubifer_, and differs from that of _U. falkensteinii_ in that the fore-wing is more acute at the apex, the outer margin being straighter and the inner margin longer, while the hind-wing has a slightly sigmoid costa and is more produced at the anal angle, and
the tail is broader and double the length of that of U. falkensteinii. The solitary female of U. falkensteinii in the Museum is from Lagos, and suggests a very white form of the genus Azanus, while the female of U. delatorum presents merely a paler tint of the colouring of its male.

In the typical section of the genus Uranothauma the male sex-mark is a discal subtriangular mass of raised black scales extending from vein 7 nearly to vein 2 of the fore-wing, as in U. crawshayi, U. cordatus, and U. nubifer. There is no sex-mark at all in U. antinorii; while in U. poggei, pelotus, artemenes, falkensteinii, and delatorum the sex-mark consists of internervular and intracellular streaks from vein 7 to vein 1, except that in U. poggei there are no streaks in the cell. In U. delatorum these linear raised streaks of black scales, which are thicker basally, occur in the spaces 6–1; one to each space, except in 1, in which there are two streaks, extending almost from the margin to the base, and indicating the probability that this cell has been produced by the fusion of two cells. The streaks in 4 and 5 are continued across the discocellulars almost to the base of the discoidal cell.

Cacyreus palemon.

16 ♂, 2 ♀. Mubuku Valley, E. Ruwenzori. 5000–7000 ft. 25. xii. 03;
14. i., 5. ii., & 7. iii. 06.
Kasumaza’s, Ruwenzori. 5300 ft. 13–23. iv. (G. F. Scott Elliot.)

Cacyreus lingeus.

1 ♂. Semliki Valley. 10. vii. 06.
1 ♂. Mokia, S.E. Ruwenzori. 3500 ft. 29. iv. & 4. v. 06.
2 ♀, 1 ♂. Mubuku Valley, E. Ruwenzori. 5000–7000 ft. 9, 17. i. 06.

Castalius margaritaceus.

Castalius margaritaceus E. M. Sharpe, P. Z. S. 1891, p. 636, t. 48. f. 3
22 ♂, 1 ♀. Mubuku Valley, E. Ruwenzori. 5000–7000 ft. 1–16 iii. 06.
Ruwenzori. 5000–6000 ft. (G. F. Scott Elliot.)

Castalius isis.

2 ♂, 1 ♀. Fort Beni, Semliki Valley. 21. vii. 06.
Semliki Valley. 10. viii. 06.
SYNTARUCUS TELICANUS FORMA PLINIUS.

Papilio plinius Fabricius, Ent. Syst. 3, i. p. 284 (1793).

2 ♂ ♂. Mokia, S.E. Ruwenzori. 3500 ft. 25. v. 06.
4 ♂ ♂, 2 ♀ ♀. Mubuku Valley, E. Ruwenzori. 5000–7000 ft. 25. xii. 05;
2. i. & 16. iii. 06.

CYCLYRIUS AQUATORIALIS.


31 ♂ ♂. Mubuku Valley, E. Ruwenzori. 5000–7000 ft. 30. xii. 05; 8. ii. &
1. 17. iii. 06.
Ruwenzori, 6000–9000 ft. (G. F. Scott Elliot.)

POLYOMMATUS BETICUS.

9 ♂ ♂, 3 ♀ ♀. Mubuku Valley, E. Ruwenzori. 5000–7000 ft. 4. i., 5. ii., &
16. iii. 06.
Ruwenzori. 5600 ft. (G. F. Scott Elliot.)

CATOCHRYSPS MALATHANA.

Lycaena malathana Boisduval, Fauna Madag. p. 25 (1833).
1 ♂. Mokia, S.E. Ruwenzori. 3500 ft. 5. v. 06.

AZANUS NATALENSIS.

21 ♂ ♂, 3 ♀ ♀. Mokia, S.E. Ruwenzori. 3500 ft. 17, 28, 29. iv. & 1. v. 06.

ZIZERA GAIAKA.

11 ♂ ♂, 2 ♀ ♀. Mokia, S.E. Ruwenzori. 3500 ft. 24. v. 06.

ZIZERA KNYSNA.

2 ♂ ♂. Mokia, S.E. Ruwenzori. 3500 ft. 4, 18. v. 06.
Kasamaza’s, Ruwenzori. 5300 ft. April. (G. F. Scott Elliot.)

CUPIDOPSIS JOBATES.

1 ♂, 2 ♀ ♀. Mokia, S.E. Ruwenzori. 3500 ft. 24. v. & 16. vi. 06.
Catochrysops osiris.

1 ♀. Mokia, S.E. Ruwenzori. 3500 ft. 7. v. 06.

Catochrysops celeus.

2♂♂. Mokia, S.E. Ruwenzori. 3500 ft. 5. v. 06.

**Family Pieridae.**

**Leptosia medusa.**


_forma alcesta._

14♂♂. Mokia, S.E. Ruwenzori. 3500 ft. 2, 21, 23. v. 06.

_forma immaculata._

_Nychitona medusa_ var. _immaculata_ Aurivillius, Ent. Tijdskr. xvi. p. 257 (1895).
11♂♂. Mubuku Valley, E. Ruwenzori. 5000–7000 ft. 16, 17. iii. 06.
1♂. Mokia, S.E. Ruwenzori. 3500 ft. 9. v. 06.

_forma nupta._

_Nychitona nupta_ Butler, Cist. Ent. i. p. 175 (1873).
Kasamaza’s, Ruwenzori. 5300 ft. 13–23. iv. (**G. F. Scott Elliot**.)
Kivata, Ruwenzori. 6000–8000 ft. 16, 17. iii. 06. (**G. F. Scott Elliot**.)

**Mylothris clarissa.**

_Mylothris clarissa_ Butler, P. Z. S. 1888, p. 70.
1 ♀. Mubuku Valley, E. Ruwenzori. 6000–13,000 ft. 26. i. 06.

**Mylothris croceus.**

_Mylothris croceus_ Butler, P. Z. S. 1895, p. 734, pl. xliii. f. i.
6♂♂, 2♀♀. E. Ruwenzori. 6000–13,000 ft. 6. ii. 06. 5000–7000 ft. 3, 16, 23. iii. 06.
Between Kivata and Luimi, Ruwenzori. 5000–8000 ft. v. & vi. (**G. F. Scott Elliot**.)

**Mylothris agathina.**

1♂. Mubuku Valley, E. Ruwenzori. 5000–7000 ft. 23. iii. 06.
ZOOLOGICAL RESULTS OF THE RUWENZORI EXPEDITION.

Mylothris rubricosta.

_Pieris rubricosta_ Mabille, Ann. Soc. Ent. Fr. (6) x. p. 28 (1890).

1 ♀. Mubuku Valley, E. Ruwenzori. 6000–13,000 ft. 26. i. 06.

Mylothris jacksoni.

_Mylothris jacksoni_ E. M. Sharpe, P. Z. S. 1891, p. 190, t. 16. f. 3.

3 ♂ ♀. Mubuku Valley, E. Ruwenzori, 6000–13,000 ft. 15. i. & 7. ii. 06.

Terias desjardinsii.

_Xanthidia desjardinsii_ Boisduval, Faunæ Ent. Madag. p. 22, t. 2. f. 6 (1833).

♂ ♀. Kivata, Ruwenzori. 6000–8000 ft. v. (G. F. Scott Elliot.)

Terias marshalli.

_forma punctinotata_ Butler.


13 ♂ ♂, 2 ♀ ♀. Mubuku Valley, E. Ruwenzori. 5000–13,000 ft. 2, 17. i. & 8. ii. 06.

_forma marshalli._


1 ♂. Kivata, Ruwenzori. 6000–8000 ft. v. (G. F. Scott Elliot.)

This specimen is of the dry-season form.

Terias regularis.


3 ♂ ♂. Mokia, S.E. Ruwenzori. 3500 ft. 29, 30. iv. 06. (Wet-season form.)

1 ♀. Kivata, Ruwenzori. 6000–8000 ft. v. (G. F. Scott Elliot.)

Terias brigitta.


1 ♀. Mokia, S.E. Ruwenzori. 3500 ft. 29. iv. 06.

1 ♀. Kivata, Ruwenzori. 5300–8000 ft. v. (G. F. Scott Elliot.)

Terias brenda.


2 ♂ ♂. Mokia, S.E. Ruwenzori. 3500 ft. 20. v. 06.

1 ♀. Semliki Forest. 10. viii. 06.
TERIAS BOISDUVALIANA.


2 ♂ ♂. Mokia, S.E. Ruwenzori. 3500 ft. 2, 7. v. 06.

TERIAS BOISDUVALIANA var. n. REDUCTA.

2 ♀ ♀. Mubuku Valley, E. Ruwenzori. 5000–7000 ft. 1. iii. 06.

A lemon-coloured form with the black border of the fore-wing only reaching vein 2.

CATOPSILIA FLORELLA.

*Papilio florella* Fabricius, Syst. Ent. p. 479 (1775).

5 ♂ ♂, 4 ♀ ♀. Mubuku Valley, E. Ruwenzori. 6000–13,000 ft. 28. i., 6. ii., & 17. iii. 06.

forma PYRENE.

*Colias pyrene* Swainson, Zool. Ill. i. t. 51 (1820–1821).

1 ♀. Mubuku Valley, E. Ruwenzori. 6000–13,000 ft. 20. i. 06.

TERACOLUS AURIGINEUS.


10 ♂ ♂, 2 ♀ ♀. Mokia, S.E. Ruwenzori. 3500 ft. 16, 27. iv. 06. (Wet-season form.)

TERACOLUS PUNICEUS.

*Teracolus puniceus* Butler, P. Z. S. 1888, p. 72.

8 ♂ ♂, 2 ♀ ♀. Mokia, S.E. Ruwenzori. 3500 ft. 2, 9, 19, 24. v. 06.

TERACOLUS PALLENE PSEUDETRIDA.

*Coliasune pseudetrida* Westwood; Oates, Matabele Land, p. 340 (1881).

2 ♀ ♀. Mokia, S.E. Ruwenzori. 3500 ft. 27, 28. iv. 06.

Both examples are of the wet-season form.

TERACOLUS ANTEVIPPE.

*Anthocharis antevippe* Boisduval, Spéc. Gén. Lép. i. p. 572, t. 18. f. 3 (1836).


8 ♂ ♂, 4 ♀ ♀. Mokia, S.E. Ruwenzori. 3500 ft. 27, 28. iv. & 1, 18. v. 06.

TERACOLUS OCALE.

*Anthocharis ocale* Boisduval, Spéc. Gén. Lép. i. p. 584 (1836).

1 ♂, 3 ♀ ♀. Mokia, S.E. Ruwenzori. 3500 ft. 17. iv. & 17, 21. v. 06.
Teracolus xanthus.

_Teracolus xanthus_ Swinhoe, P. Z. S. 1884, p. 440, pl. 39. f. 10 (1884).

18 ♂ ♂ . Mokia, S.E. Ruwenzori. 3500 ft.

Belenois raffrayi.

_Pieris raffrayi_ Oberthür, Ét. d’Ent. iii. p. 17, pl. 1. f. 3 (1878).

2 ♂ ♂ . Mubuku Valley, E. Ruwenzori. 6000–13,000 ft. 24. ii. & 1. iii. 06.

Belenois thyza.


15 ♂ ♂ , 1 ♀ . Mokia, S.E. Ruwenzori. 3500 ft. 27. iv. & 7, 16, 19, 24. v. 06.

Belenois severina.


7 ♂ ♂ , 7 ♀ ♀ . Mokia, S.E. Ruwenzori. 3500 ft. 16, 28. iv. & 8, 19, 24. v. 06.

1 ♂ . Mubuku Valley, Ruwenzori. 6000–13,000 ft. 20. i. 06.

All belong to the wet-season form.

_var. infida_ Butler.

_Belenois infida_ Butler, P. Z. S. 1888, p. 78.

♂ ♂ , ♀ . Between Kivata and Luimi, Ruwenzori. 7000–8000 ft. May and June.

( _G. F. Scott Elliot_.)

Belenois westwoodi.


9 ♂ ♂ , 5 ♀ ♀ . Mokia, S.E. Ruwenzori. 3500 ft. 16, 17, 25, 29, 30. iv. & 2. v. 06.

(Representative of the wet-season form.)

The females show considerable variation. One has the coloration of the male; the others, with ground colours from lemon to orpiment-yellow, are obscured by heavy black borders, usually occupying nearly half the wings, and in one the black scaling extends lightly all over the fore-wing, and even in the hind-wings only a portion of the cell is free from the black dusting.

Belenois solilucis.


1 ♂ , 1 ♀ . Mokia, S.E. Ruwenzori. 3500 ft. 9, 24. v. 06.

Belenois zochalia var. n. ochracea.

1 ♀ . Mubuku Valley, E. Ruwenzori. 6000–13,000 ft. 23. i. 06. Dry-season form.

A variety with both the fore- and hind-wings ochraceous above.
Glutophrissa contracta.

*Glutophrissa contracta* Butler, P. Z. S. 1888, p. 75.

3♂♂, 1♀. Mokia, S.E. Ruwenzori. 3500 ft. 3, 24. v. 06.

Leuceronia buquetii.


2♂♂, 1♀. Mokia, S.E. Ruwenzori. 3500 ft. 16, 25. v. 06.

Nepheronia argia.

*Papilio argia* Fabricius, Ent. Syst. p. 470 (1775).

*forma typica* Aurivillius.

1♀. Fort Beni, Semliki Valley. 25. vii. 06.

Eronia led. a.


13♂♂, 2♀♀. Mokia, S.E. Ruwenzori. 3500 ft. 20. iv. & 18, 19. v. 06.

Eronia dilatata.


3♂♂, 1♀. Mokia, S.E. Ruwenzori. 3500 ft. 20, 30. iv. & 21, 22. v. 06.

Family Papilionidae.

Papilio menestheus lormieri.

*Papilio lormieri* Distant, Ent. Mo. Mag. xi. p. 129 (1874).

1♂. 130 miles W. of Entebbe. 4000 ft. 8. xii. 05.

Papilio phorcas.


3♂♂, 1♀. Mokia, S.E. Ruwenzori. 3500 ft. 19–21. v. 06.

Papilio mackinnoni.


2♂♂. Mubuku Valley, E. Ruwenzori. 5000–7000 ft. 27. iii. 06.

1♂. Between Kivata and Luimi, Ruwenzori. 7000–8000 ft. v. or vi. (G. F. Scott Elliot.)

Papilio demodocus.


4♂♂, 1♀. Mokia, S.E. Ruwenzori. 3500 ft. 25. iv. & 5. v. 06.
Papilio dardanus.

*Papilio dardanus* Brown, Ill. Zool. p. 52, t. 22 (1776).

14 ♂ ♂. Mokia, S.E. Ruwenzori. 3500 ft. 16. v. 06.

*forma hippocoon.*

*Papilio hippocoon* Fabr. Ent. Syst. 3, i. p. 38 (1793).

2 ♀ ♀. Mokia, S.E. Ruwenzori. 3500 ft. 16, 21. v. 06.

Papilio zenobia.

*Papilio zenobia* Fabricius, Syst. Ent. p. 503 (1775).

1 ♂. Fort Beni, Semliki Valley. 21. vii. 08.

Papilio galliennus.


*Papilio mechowi* Dewitz, Berl. ent. Zeit. p. 69, t. iii. f. 1 (1882).

1 ♂. Fort Beni, Semliki Valley. 21. iv. 06.

Papilio plagiaetus.

*Papilio plagiaetus* Aurivillus, Ent. Tidskr. xix. p. 183 (1898).


Papilio jacksoni.

*Papilio jacksoni* E. M. Sharpe, P. Z. S. 1891, p. 188, t. 17. ff. 1, 2.

2 ♂ ♂. Mubuku Valley, E. Ruwenzori. 5000–13,000 ft. 5. ii. & 7. iii. 06.

1 ♀. Ruwenzori. 9000 ft. (G. F. Scott Elliot.)

Family Hesperiidae.

Sarangessa subalbicans.


3 ♂ ♂. Mokia, S.E. Ruwenzori. 3500 ft. 16, 17. vi. 06.

Sarangessa haplopa.


1 ♂. Mubuku Valley, E. Ruwenzori. 5000–7000 ft. 17. iii. 06.

Eretis perpaupera.


Celienorrhinus proximus.

1 ♀ ♂. Mokia, S.E. Ruwenzori. 3500 ft. 17, 28. vi. 06.

Celienorrhinus galenus.

Hesperia galenus Fabricius, Ent. Syst. 3, i. p. 350 (1793).
1 ♀. Mokia, S.E. Ruwenzori. 3500 ft. 16. vii. 06.

Hesperia ploetzi.


An Eastern (Uganda) form with very large cream spots.

Pyrgus demus.


Kivata, Ruwenzori. 6000-8000 ft. May. (G. F. Scott Elliot.)

[The specimen is worn and maimed; perhaps referable rather to ploetzi.]

Oxypalpus wollastoni, sp. n. (Plate V. fig. 12, ♀.)

Expanse 25-29 mm.

Above rich fulvous with markings similar to those of O. russo Mabille, but the underside, as in O. fulvus Lathy, shows no sign of radiating streaks on the plain fulvous ground. Its nearest allies are probably O. fulvus Lathy and O. (Pardaleodes) rutilans Mabille.

Upperside. Rich fulvous, with black markings; the cilia uniformly fulvous. Forewing with a black border along the costal margin, starting very narrowly at about one-fifth from the base and gradually widening to the apical angle; a broad black border along the external margin, which is thickly dusted with fulvous scaling and ill-defined internally; from the base almost to the external border extends a broad black longitudinal streak, almost filling the cell, at the end of which its posterior margin is more or less deeply indented—in some specimens quite cut through—by the ground-colour; a similar but narrower streak runs from the base to the border along the posterior edge of vein 2, but it is broadly interrupted by the ground-colour near the origin of that vein; all the veins are more or less dusted with black scales, and especially vein 1. Hind-wing: completely encircled by a strong black border about 1 mm. wide, except at the costal margin, where it is swollen to double that width, broken only at vein 1 b, where it is sharply interrupted by a longitudinal streak of the ground-colour, about 5 mm. wide; a narrow black line runs from the base to the outer
border along vein 1b, and there is a similar streak, but of three times the width, along vein 1c; a triangular patch of powdered black, with its apex at the origin of vein 2, extends outwards one-third the length of the wing.

**Underside.** Both wings plain fulvous, save for the thin black marginal line from mid-costa to the tornus of the fore-wing and from vein 7 to 1b of the hind-wing; a patch of black scales at the base of the internal margin of the fore-wing extends indistinctly outwards along vein 1.

Antennea and palpi black above, fulvous below. Head and body fulvous above, orange below. The legs orange, save that the femora are black above.

3 ♂ ♂, from Mokia, S.E. Ruwenzori. 3500 ft. 19, 21, v. & 27. vi. 06.

**Pardaleodes incerta.**

*Pamphila incerta* Snellen, Tijd. Ent. (2) vii. p. 29, t. 2. ff. 10–12 (1872).

1 ♂. Mubuku Valley, E. Ruwenzori. 6000–13,000 ft. 9. i. 06.

**Cyclopides metis.**


3 ♂ ♂. Mubuku Valley, E. Ruwenzori. 5000–7000 ft. 6, 7. i. & 5. ii. 06.

**Cyclopides willemi.**


1 ♀. Mokia, S.E. Ruwenzori. 3500 ft. 27. vi. 06.

**Cyclopides midas.**

*Cyclopides midas* Butler, P. Z. S. 1893, p. 671.

2 ♂ ♂, 1 ♀. Mubuku Valley, E. Ruwenzori. 5000–7000 ft. 17. i. 06.

2 ♂ ♂. Kasamaza’s 5300 ft., Kivata 6000–8000 ft., Ruwenzori. (G. F. Scott Elliot.)

**Chioneigia, gen. n.**

Antennea a little longer than three-fourths the length of the fore-wing, rather stout, the gradually incrassate club about one-third the length of the shaft and about three times its diameter; the apiculus not sharply marked off from the club-mass and in length hardly more than half its diameter.

Palpi porrect, the third joint hardly visible in the thick mass of scales which obscures the second.

Fore-wing: the costa slightly concave above the distal portion of the cell, and the apex subacute, hardly more than half a right angle in male, more in the female, in which sex the costal margin is proportionately shorter. The convex external margin a little longer than the internal in the male, subequal in the female. The cell less than two-thirds of the wing-length (about five-eighths in male, three-fifths in female);
vein 12 finishing at or beyond cell-end, 8 before wing-apex, and 7 well on external margin in a line with upper border of cell; 6 just below cell-apex, leaving a minute upper discocellular; 5 (much bent down at its origin) arises three times as far from 6 as from 4, thus leaving a long middle discocellular generally subparallel with external margin of wing and flexed a little inwards posteriorly; 2 a little nearer to base than to 3, which is four times as far from 2 as from 4.

Hind-wing: in the male subcircular, its greatest width about equal to the external margin of the fore-wing; in the female subpyriform. The costa is more arched in the male; external margin rounded in both sexes and the internal margin almost straight. The cell about half of the wing-length; discocellulas strongly oblique inwards costally; vein 8 finishing two-thirds along costa; 7 and 6 arising at upper end of cell; 5 hardly developed, at its origin very slightly nearer 6 than 4; 3 arising a little before the end of the cell and twice as far from 4 as it is from 2; the distance between 4 and the base is more than twice the distance between 4 and 3.

Hind tibiae with a pair of spurs.

In the male a hardly distinguishable sex-patch of scales covers the area of veins 2, 3, and 4 of the hind-wing. The extent and position of this patch are best seen in specimens which have been almost cleared of their scaling by Eau de Javelle.

Type, *Chioneigia leggei* mihi.

The genus is nearest to *Ploetzia* and *Kedestes*.

It has no fore-wing sex-streak in the male as in the former genus and has a much more minute third joint to the palpus than in the latter genus.

**Chioneigia leggei**, sp. n. (Plate V. figs. 15, 16, ♂; 17, 18, ♀.)

Expanse: ♂ 38 mm., ♀ 41 mm.

♂.—Upperside. Fore-wing seal-brown; at the end of the cell two amber spots placed closely one above the other; below these, and almost in a line with them, in space 2 an elongate oblong amber spot, reaching vein 2; a minute spot at the basal angle of space 3; midway between the end of the cell and the apex a short band, composed of three oblong translucent spots, in spaces 6, 7, and 8, that in 6 being the largest, while the one in 8 is a little longer than the one in 7; about halfway between the base and the external margin, and just above vein 1, there is a small spot (sometimes evanescent) of clay-colour or ochre-yellow; cilia light brown. Hind-wing uniform seal-brown; cilia pale ochre.

Underside. Fore-wing: the spots of the upperside appear on a ground varying from seal-brown with ochreous scales at the costa to a full sepia at vein 1, between which and the internal margin the scales are lustrous yellow-grey. The ground-colour is invaded along the external margin from the apex to vein 2 by violaceous brown, which leaves minute internervular triangular patches of ground-colour along the margin. Hind-wing light violaceous brown, the costal margin with a broad border of rich brown-pink;
from the apex of this border a transverse band of the same colour runs across the wing, beyond the end of the cell, as far as vein 1b; between this and the outer margin is some faint darker shading, and along the margin some vague lunules of greyish scales are sometimes visible.

♀.—Upperside. Paler than that of the male. Fore-wing with the elongate spot in space 2 more displaced outwardly, the spot in space 3 larger; while in the subapical band the spot in space 8 is not longer than that in 7. Hind-wing clothed at the base with ochreous hairs.

Underside. The ground-colour is much paler, especially in the hind-wing, in which the costal border of brown-pink is also much paler and less pronounced.

Antennae of the male white above, buff below, except the apiculus which is brown on both surfaces. In the female, the antennae are brown above, save for a few white scales at the end of the club; below buff, which colour spreads a little round the joints of the shaft and is visible from the upperside.

Head in both sexes brown above; in the male with white scales between the antennae, in the female with buff scales posterior to them.

Thorax and abdomen seal-brown above, the female with a few raw sienna scales at the end of the abdomen. Below the violaceous brown predominates, the legs remaining brown-pink.

Palpi below brown-pink.

2♂♂, 2♀. Mubuku Valley, E. Ruwenzori, 6000–13,000 ft. 13, 15, 21. i. & l. iii. 06.

Ceratrichia wollastoni, sp. n. (Plate V. figs. 13♂; 14, ♀.)

Expanse: ♂ 31 mm., ♀ 31 mm.

Nearest C. flava Hewitson in wing-shape, but paler in colour, with the fore-wing divided about equally into an apical dark half and basal lighter portion, while in flava the dark border is subparallel to the external margin from the tornus to vein 4 and then angulated along the vein and running obliquely to the costa.

♂.—Upperside. Gamboge-yellow: fore-wing with the apical half rich seal-brown, this area terminating internally in an even curve from the tornus to mid-costa, which touches the end of the cell; a minute ray of dark scales stretches for 2 mm. from the base along the costal nervure; the basal half of the costal margin very narrowly edged with brown: hind-wing with a patch of the dark brown at the apex of the wing and a few dark scales at the base of the internal margin.

Underside. Fore-wing: ground-colour the same as above, but much more orange towards the costal and external margins and paler towards the internal margin; the dark scaling covers the same area as above, but is much reduced in density, hardly traceable costalwards, and dusted with dull gallstone-yellow scaling at the external margin. At about 1·5 mm. from the external margin a small brown-bordered silver spot lies in interspaces 6, 8, 9, 10. On costal margin lies another, and one is situated in
interspace 7 at 4 mm. from the margin. *Hind-wing*: the gamboge-yellow extends only from the internal margin to the fold between veins 1 b and 2, where it is separated by a dark line from the rest of the wing, which is ochreous-yellow. About one-third from the base is a curved row of three (or four) ill-defined spots, in space 1 b, the cell, space 7, and sometimes 8 respectively; these spots are formed of more or less broken rings of brown scales surrounding a few pearly ones; beyond the middle is another parallel row of seven similar spots, there being one in each space from 1 b to 7, but the spot in space 4 is minute and rather displaced inwardly.

♀.—*Upperside.* Fore-wing scal-brown; an ochraceous spot at end of cell, 6 mm. from base of wing, another in space 2 nearer the outer margin; minute spots situated as those on the underside of the male in spaces 3 to 7, that in 4 very minute and sometimes absent. *Hind-wing*: the brown colour is confined to the basal, costal, and apical portions, leaving the larger area of the wings a pale ochre-yellow.

*Underside.* Fore-wing light sepia-brown, yellow towards the costa and apex and along the inner margin of the wing; the spots of the upper side are all traceable, and there are additional ones in spaces 8 and 9. *Hind-wing* below a pale luteous, the spots and markings as in the male.

*Hab.* Uganda.

2♂♀, 1♀. Entebbe, Uganda. (E. A. Minchin.)

1♂. Mubuku Valley, E. Ruwenzori. 5000-7000 ft. 18. ii. 06.

**Padraona zeno.**


1♂. Mokia, S.E. Ruwenzori. 3500 ft. 16. vi. 06.

2♂♂, 2♀♀. Mubuku Valley, E. Ruwenzori. 6000-13,000 ft. 14, 15, 17. i. 06.

1♂. Ruwenzori. 5600 ft. (G. F. Scott Elliot.)

**Artitropa comus.**


1♂, 2♀♀. Mubuku Valley, E. Ruwenzori. 6000-13,000 ft. 2, 22, 27. i. 06.

**Baracus lepeletieri.**


8♂♂. Mubuku Valley, E. Ruwenzori. 5000-7000 ft. 17. i. 06. 6000-13,000 ft. 26. ii. 06.

**Acleros mackenii.**


1♂. Mubuku Valley, E. Ruwenzori. 5000-7000 ft. 20. ii. 06.
Gegenes letterstedti.


1♂, 1♀. Mokia, S.E. Ruwenzori. 3500 ft. 16. vi. 06.

1♂. Mubuku Valley, E. Ruwenzori. 5000-7000 ft. 17. v. 06.

Gegenes occulta.

_Pamphila occulta_ Trimen, P. Z. S. 1891, p. 103.

1♂. Mokia, S.E. Ruwenzori. 3500 ft. 17. v. 06.

Baoris lugens.


1♂. Mokia, S.E. Ruwenzori. 3500 ft. 16. vi. 06.

Chaeptra mathias.


Parnara detecta.


2♀♀. Mubuku Valley, E. Ruwenzori. 6000-13,000 ft. 7, 9. ii. 06.

Parnara sp.

1♂. Mokia, S.E. Ruwenzori. 3500 ft. 27. vi. 06.

A similar specimen taken at Entebbe by Minchin.

Rhopalomampta forestan.


5♂♂. Mokia, S.E. Ruwenzori. 3500 ft. 16. vi. 06.

1♂, 1♀. Mubuku Valley, E. Ruwenzori. 6000-13,000 ft. 13. i. 06. 15,000 ft. 16. ii. 06.

One found "dead on snow."

Rhopalomampta libeon.

_Ismene libeon_ Druce, P. Z. S. 1875, p. 416.

_Ismene unicolor_ Butler (nec Mabille), P. Z. S. 1895, p. 738.

Kasamaza’s, Ruwenzori. 5300 ft. iv. or v. (G. F. Scott Elliot.)

Kivata, Ruwenzori. 6000-8000 ft. iv. or v. (G. F. Scott Elliot.)
PLATE V.
PLATE V.

Fig. 1. Gnophodes grogani E. M. Sharpe, ♂
3. " " minchini Heron, ♂
4. " " forma n. magnumplaga, Heron ♂, p. 144.
5. Ergolis pagenstecheri forma n. aurantiaca Heron, ♂, p. 154.
7. Charaxes opinatus Heron, ♂, p. 156.
8. Gnophodes chelys Fab., ♂, fore-wing
10. " " parmenio Doubl. & Hew., ♂, fore-wing
11. Acra amicitia Heron, ♂, p. 148.
12. Oxycolpus wollastoni Heron, ♂, p. 171.
13. Ceratrichia wollastoni Heron, ♂ p. 174.
17 & 18. " " Heron, ♀ p. 173.
20. " " Dewitz, ♀ p. 162.
22. " " Heron, ♀ p. 161.
23 & 24. Harpendreus reginaldi Heron, ♂ p. 159.
25 & 26. " " Heron, ♀ p. 159.
LEPIDOPTERA RHOPALOCERA
FROM MT. RUWENZORI, ENTEBBE, AND LAGOS.
RUWENZORI EXPEDITION REPORTS.

13. HYMENOPTERA.

By the late Col. C. T. Bingham, F.Z.S.

Received November 13, read November 17, 1908.

Family Ichneumonidae Leach.

Genus Lactolus Cam.

1. Lactolus sp.
One specimen from Salt Lake, S.E. Ruwenzori.

Genus Osprynchotus Spin.

One specimen from Mubuku Valley, E. Ruwenzori, 7000 ft.

Family Braconidae Newm.

Genus Iphiaulax Först.

3. Iphiaulax rupithorax, sp. n.

♂. Head, antennae, the intermediate and posterior tibiae and tarsi, and the sheath of the ovipositor black; the posterior trochanters and femora and the abdomen on the upperside a beautiful brilliant purplish-blue; the base of the mandibles, the thorax, the whole of the anterior legs, the coxae, trochanters and femora of the intermediate legs, and the coxae only of the posterior legs dark red; abdomen on the underside yellow with lateral blotches of dark brown; a spot on the underside of the posterior coxae also brown, the tip of the posterior trochanters red; wings purplish-brown, with a short broad hyaline streak in the 1st cubital cell continued below into the 3rd discoidal cell, tegule red, nervures brown. Head rounded; face below the bases of the antennae closely and finely punctured and raised into a short vertical carina, front above the bases of the antennae, the scape, the occiput and area behind the eyes smooth, polished, and shining, flagellum of the antennae opaque. Thorax massive, smooth, and shining; mesonotum convex; scutellum raised slightly, sub-pyramidal; median segment roundly sloped posteriorly and at the sides. Abdomen comparatively broad, generally smooth and polished, with strong transverse serrations between the segments; basal segment strongly laterally margined, deeply grooved.
within the raised margins, and convex in the middle; 2nd segment also laterally
margined with broad, shallower, lateral grooves within, a medial raised triangular area
at base bordered beyond by a shallow concavity which is longitudinally strongly striate;
2nd and 3rd segments with short, obliquely transverse, shallow grooves, which are also
longitudinally striate or serrate. Head, thorax, and abdomen clothed with short, very
sparse, erect, brown hairs; on the front of the face, on the tibiae and tarsi, and on the
sheath of the ovipositor this pubescence is shorter and very dense, of a golden-brown
colour on the tibiae and tarsi of the anterior legs, and black on the sheath of the
ovipositor, on the apical third of which last it turns to greyish-white.

_Hab._ Ruwenzori, 7000 ft. (G. F. Scott Elliot).
One female specimen.

**Family Formicidae Latr.**

_Subfam._ Doryline Shuck.

**Genus Dorylus Fabr.**

4. _Dorylus nigricans_ Ill. _Magaz. f. Insectenk._ i. p. 188 (1802).

**Family Sphegidae.**

**Genus Tachytes Panz.**

5. _Tachytes_ sp.
One specimen from Mubuku Valley, E. Ruwenzori, 7000 ft.

**Genus Philanthus Fabr.**

6. _Philanthus limatus_, sp. n.

♀. Head and thorax black, the clypeus, a patch above it on either side touching
the inner margin of the eyes, a crescentic mark on the front between the bases of the
antennæ, and a small spot on the scutellum and postscutellum respectively, yellow.
Wings hyaline, slightly brownish towards their apices, nervures and tegulae brownish-yellow;
legs black. Abdomen yellow, darkening to reddish-brown posteriorly; basal
segment black above and below; 2nd, 3rd, and 4th segments with large quadrate black
marks on the dorsum; 5th and 6th segments shaded with black above. Head very
broad, much broader than the thorax; mandibles powerful, opaque, grooved above;
 Clypeus and front below the antennæ with the yellow patches on either side smooth
and shining; antennæ robust, opaque, not shining, 2nd flagellar joint one-third longer
than the 3rd and twice the length of the 4th; front above the base, antennæ up to the
ocelli finely and closely punctured, the vertex round and behind the ocelli and the area
behind the eyes smooth and shining, with only a few scattered fine punctures and with
a slightly marked medial longitudinal carina. Thorax: pro- and mesonotum, scutellum,
postscutellum, pleuræ, and pectus finely but rather sparsely punctured; median segment
rounded, obliquely declivous, its anterior half smooth, shining, unpunctured, its posterior
or lower half closely and finely punctured; legs opaque, unpunctured. Abdomen
smooth, but with a dull surface, not shining. Head, thorax, and the underside of the
abdomen clothed somewhat sparsely with erect, long, soft, yellowish hairs, which are
most dense on the front and face and on the sides of the median segment; on the
intermediate and posterior legs the tibiae and tarsi, and on the anterior legs the tarsi
only, are strongly spinose, the spines black.

Length ♀ 17–18, exp. 31 mm.

_Hab._ Mubuku Valley, E. Ruwenzori, 5000–7000 ft.

Two female specimens were procured in January. The second specimen differs
from the type described above in the absence of the quadrate black mark on the
dorsum of the 4th abdominal segment.

**Family Vespidæ Latr.**

**Subfam. Euménidæ Westw.**

**Genus Eumenes Latr.**


Two males and one female from Mubuku Valley, E. Ruwenzori, 3000–7000 ft.
The males taken in February, the female in June. A common species throughout
Tropical Africa.


One female specimen, Mubuku Valley, E. Ruwenzori, 7000 ft.

A West-African species.

**Subfam. Vespinate Stephens.**

**Genus Belongaster Sauss.**


Three specimens from Mubuku Valley, E. Ruwenzori, 5000–7000 ft. January and
February.


Two specimens from Mokia, S.E. Ruwenzori, 3500 ft. May and June.

Genus Icaria Sauss.
One specimen from Mubuku Valley, E. Ruwenzori, 6000-13,000 ft. January.
A common African species.

Genus Polistes Latr.
One specimen from Mokia, S.E. Ruwenzori, 3500 ft. May.

Family Apidae Leach.
Genus xylocopa Latr.
One male from Mubuku Valley, E. Ruwenzori, 6000-13,000 ft. January.
Ranges over nearly the whole of Africa. X. io Vachal is probably identical with
X. carinata Smith, the ♀ of X. producta. Vachal’s description agrees well with the
type of X. carinata, which is in the British Museum collection.


Four males and five females from Mubuku Valley, E. Ruwenzori, 5000-13,000 ft.
January.
The type, a male, was described by Smith from Lake Nyassa. The female closely
resembles the male, but the clypeus is black, with only a small spot of yellow at each
anterior angle and a club-shaped narrow yellow streak down the middle.

Genus Podalirius Latr.
One male and two females, Mubuku Valley, E. Ruwenzori, 9000 ft.
Genus Megachile Latr.

One female from Mokia, S.E. Ruwenzori, 3500 ft. May.
The type, now in the British Museum, is from Pearston, Grahamstown.

One male, Mubuku Valley, E. Ruwenzori, 5000–7000 ft. 31st January.
One female, Ruwenzori, 7000–8000 ft. (G. F. Scott Elliot).
Dalla Torre and other authors have sunk Gerstäcker’s M. larvata as a synonym of M. rufiventris Guérin, from India, but the clypeus in the ♀ of the Indian species is totally different from that of the African form. Guérin’s description is very insufficient, and his figure corresponds neither with the description nor with any Indian form of Megachile known to me. I may add that, in vol. i. of the Hymenoptera. Fauna British India series, I joined M. rufiventris Guérin with M. mystacea Fabr., an Australian species, but further careful comparison has convinced me that the two forms are distinct.

Genus Apis Linn.


The death of Colonel Bingham occurred before he had been able to complete his report on the Hymenoptera collected by the Ruwenzori Expedition. The foregoing has been drawn up from manuscript which he left.
RUWENZORI EXPEDITION REPORTS.

14. COLEOPTERA.

By Gilbert J. Arrow, F.E.S., C. O. Waterhouse, P.E.S., C. J. Gahan, M.A.,
and Guy A. K. Marshall, F.Z.S.

Received October 24, read November 17, 1908.

[Plates VI. & VII.*]

INTRODUCTION.

By C. J. Gahan, M.A.

In the following papers dealing with the Coleoptera of the Ruwenzori range we have recorded altogether rather more than 200 species, of which 48, or nearly one-fourth, are described as new. The species recorded, while consisting mainly of those collected by the Hon. Gerald Legge and Mr. A. F. R. Wollaston during the recent expedition to Ruwenzori, also include all other species known to us as occurring on that range. We may especially mention those collected there by Mr. G. F. Scott Elliot. The total number of species is so small, and must give such an inadequate idea of the whole Coleopterous fauna of Ruwenzori, that it would not be wise to draw any definite conclusion as to the relation of this fauna with that of other parts of Africa. The material, such as it is, suggests, however, that there is a fairly close relationship between the Coleoptera of Ruwenzori and East Africa, including both British and German East Africa, but that the fauna of Ruwenzori shows a slightly larger admixture of the West African element.

In order to avoid a useless repetition, we have omitted in the text the names of the collectors, except where these happen to be other than the Hon. G. Legge and Mr. A. F. R. Wollaston.

* For explanation of the Plates, see pp. 234, 236.
ZOOLOGICAL RESULTS OF THE RUWENZORI EXPEDITION.

Part I.

By Gilbert J. Arrow, F.E.S.

Family Passalidae.


Parum depressus, supra ubique minute punctulatus, capite varioloso-rugoso, clypeo fortiter quadridenticato, medio minute bidentato, cornu mediano parum prominente, tuberculis posticis distinctis, conicis, carinis frontali bus integris, regulariter arcuatis, angulo acuto convergentibus; prothoraces lateribus leviter arcuatis, sat crebre punctat, angulis anterius fere rectis; scutello impunctato; elytris punctato-striatis, punctis dorsali bus subtilibus, lateralibus densi, scalariformibus; mesosterno glabro, utrinque late foveolato; metasterni medio impunctato, angulis posticis punctis parvis nonnullis; abdominis segmentis utrinque triangulariter rugose impressis, segmenti ultimi dimidio postico crebre punctato et anereo- hirto.

Long. 21–22 mm. Lat. max. 7.5–8 mm.

Hab. Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.

A series of specimens was collected by the Expedition.

This species is distinguished by the metasternal plate being quite free from punctures. It is much smaller than D. levisternus Arrow, but greatly resembles the West African D. parastictus Imh. It differs from the latter species not only in the unpunctured metasternal disc, but in the rather less acute front angles of the prothorax, the sharply-limited rugose puncturing of the sides of the abdomen, which is confined to definite depressions, the very slight emargination of the last segment and the pilosity of its latter half.


Robustus, sat brevis, modice convexus, capite subtiliter punctato-rugoso, clypeo quadridentato, medio late emarginato, dentibus aequalibus, carinis frontali bus vix arcuatis, post medium angulatus et tuberculatis, cornu mediano obtuso, postice baud lato aut sulcato, tuberculis posticis transverse carinatis; prothoraces lavi, medio canaliculato, fossis lateralibus minute punctatis, sulco laterali angusto, paulo punctato, prothoraces præterea impunctato; scutello antice subtiliter punctulato, postice impresso; elytris striatis, striis lateralibus leviter punctatiss, duabus juxta-suturalibus fortiter impressiss, tribus intermediis tenuibus; mesosterno lato, glabar, utrinque fortiter foveolato, lateribus punctatis et hirsutis,
metasterni medio et angulis posticis impunctatis, lateribus punctatis et hirsutis; abdominis segmento ultimo postice depresso et crebre punctato, penultimo omnino polito.

Long. 34 mm. Lat. max. 13 mm.

_Hab._ Mubuku Valley, E. Ruwenzori, 6000-13,000 ft.

A single example of this isolated form was found. Although agreeing in essential features with _Didymus_ it has more the aspect of _Erionomus_. It is large, broad, and little flattened; the head is normal, the prothorax devoid of punctures, except for a few minute ones in the lateral scars, and the elytral striae are only slightly punctured, the three exterior dorsal ones being much feebler than the rest. The sides of the elytra are naked, but there are a few hairs at the anterior face. The sides of the meso- and metasternum are hairy, and the latter is without punctures either at the middle or the hind angles.


_E. sansiharico_ Har. proxime affinis, sed metasterni angulis posticis parce punctatis abdomineque fere omnino polito; sat convexus, clypeo 5-dentato, carina media nulla, carinis frontalibus valde areuatus, angulo obtuso convergentibus, cornu mediano antice conico, postice vix sulcato, a tuberculis lateralibus vix diviso; prothoracis lateribus grosse sat crebre punctatis, angulis antice rectis; scutello polito; elyris punctato-striatis, punctis dorsalibus subtilibus, lateralibus grossis, scalariformibus; metasterni medio impunctato, angulis posticis sat sparse punctatis; abdominis lateribus vix punctatis, segmento ultimo polito, postice transverse bifoveolato.

Long. 26-28 mm. Lat. max. 10.5-11.5 mm.

_Hab._ Mubuku Valley, E. Ruwenzori, 6000-13,000 ft.

Several specimens were collected.

This species is of the same size and shape as _E. sansibaricus_ Har., from which it is only distinguishable on close examination. It differs by the shield-like space between the frontal carinae being rather less pointed behind and showing no trace of a median carina, by the thinly, instead of closely and coarsely, punctured hind angles of the metasternum, and the almost unpunctured sides of the abdomen.

**Family ORPHNIDÆ.**

**ORPHNUS sp.**

Ruwenzori, 5300 ft. A single female specimen was found by Mr. Scott Elliot.
Family **Hybosoridae.**

**Phleochrous sp.**

Mokia, S.E. Ruwenzori, 3400 ft. A single specimen represents this family also.

Family **Aphodiidae.**

*Aphodius unicornatus* Schmidt, Notes Leyden Mus. xxxi. 1909, p. 111.


This species, first described by Dr. Péringuey, is closely allied to *Aphodius rhinoceros* Reiche, but quite distinct from it. Reiche's type as well as co-types of *A. armatus* Roth (a synonym of *A. rhinoceros*) are now in the British Museum. *A. unicornatus* is rather smaller than that species, the elytra are darker, the pro-thoracic elevation of the male has two points instead of one, the clypeus is more sinuated in front, the elytral sulci are scarcely visibly punctured and the interstices are more convex. Reiche's figure represents the colour of *A. rhinoceros* as darker than it actually is. The elytra are testaceous with the sutural margins brown, whereas the present species is almost uniformly reddish-testaceous.

*Hab.* A single female was found at Mokia, S.E. Ruwenzori, 3400 ft. There are also examples in the British Museum from Natal, Johannesburg, and Salisbury.

Family **Copridae.**


One male specimen was taken at Fort Beni, Semiliki Valley.

*Helicocyclus hamadryas* F. Syst. Ent. p. 22.

Fort Beni, Semiliki Valley, and Mokia, S.E. Ruwenzori, 3400 ft. Several examples.


Mokia, S.E. Ruwenzori. 3400 ft. A single female.


Mubuku Valley, E. Ruwenzori, 6000–7000 ft. This species ranges from Somaliland to the Orange River Colony.


Mokia, S.E. Ruwenzori, 3400 ft.
Family MELOLonthiDEA.

TROCHALUS sp. A single specimen from the Mubuku Valley, E. Ruwenzori, 6000-13,000 ft.

SEEICA, 3 spp. All represented by unique specimens from the Mubuku Valley E. Ruwenzori, 6000-13,000 ft., and Mokia, S.E. Ruwenzori, 3400 ft.

EUPHORESIA sp. near E. SEMNIONIS Brenske.
Mubuku Valley, E. Ruwenzori, 6000-7000 ft.

Mubuku Valley, E. Ruwenzori, 6000-7000 ft.
This species was described from West Africa, and the type is a female. A single male was brought from Ruwenzori. A comparison with the type might perhaps reveal differences which I have not been able to discover.

Mokia, S.E. Ruwenzori, 3400 ft. Examples of both sexes were collected.
This species belongs to the subgenus which Kolbe (Ent. Nachr. 1899, p. 57) has called Catagonia, a preoccupied name for which Kraatz (apparently without intention) has substituted the name Ceratogonia.

SCHIZONYCHA, 6 spp. These are probably new, but nearly all are represented by unique specimens and it would not be justifiable to describe them.

CONIOPHOLIS sp.
Mokia, S.E. Ruwenzori, 3400 ft. Also a unique specimen.

Family RuTElidAE.

Var. or new sp. Mubuku Valley, E. Ruwenzori, 6000-13,000 ft.

Mokia, S.E. Ruwenzori, 3400 ft. A single female specimen.

Mokia, S.E. Ruwenzori, 3400 ft. Also a single female.

This large species was also taken on Ruwenzori by Mr. Scott Elliot at an altitude of 9000 ft.

POPILLIA GRAMINEA Kolbe, Deutsch-Ost-Afrika, p. 173.

POPILLIA RUNSORICA, sp. n.
Modice elongata, viridi-ænea, elytris, femoribus tibiiisque magis brunnescentibus; clypeo lato, rugose punctato, fronte crebre punctato; prothoracis dorso subtilissime, lateribus dense punctatis, angulis anticis acuminatis, posticis fere acutis; scutello minutissime punctato; elytris late striato-punctatis, interstitiali 3° et 5° elevatis, 4° latiore, parce punctato, 2° latissimo, irregulariter sat minute punctato; pygidio modice punctato, utrinque macula albo-hirta ornato; corporis subtus lateribus longe griseo-hirtis, abdomenis segmentis lateraler ciliis decumbentibus bipartitis; processu sternali longo, curvato, fere acuminato.

Long: 11–13 mm. Lat. max. 6–7 mm.
Hab. Mubuku River, E. Ruwenzori, 6000–13,000 ft.
Mr. Scott Elliot also found this species on Ruwenzori between 7000 and 8000 ft. altitude. I have examined four specimens, all of them males.

The strong, curved, and pointed mesosternal process distinguishes this from most of the other African species of Popillia, and the sculpture of the elytra, of which the subsutural interval is very broad and the 3rd and 5th intervals narrow and elevated, is also peculiar. The species appears to resemble P. fulleborni Kolbe, but is smaller; the pronotum is closely punctured, except in the middle, and its hind angles are rather sharp.

Mokia, S.E. Ruwenzori, 3400 ft.; Fort Beni, Semliki Valley. This is a common West African form, very abundant in Nigeria.

ADORETUS FLAVIVITTATUS, sp. n. (Plate VII. fig. 7.)
Testaceus, capitis fronte, prothorace (linea angusta mediana lateribusque exceptis) elytrorumque marginibus latis utrisque nigris; corpore supra et subtus parce et minute griseo-setoso; capite grosse rugoso, clypeo lato, semicirculari; prothorace sat lato, grosse sat crebre punctato, lateribus valde arcuatis; scutello punctato; elytris dense sat regulariter annulato-punctatis, lineis nonnullis indistincte
geminato-striatis; pygidio subtiliter rugoso, subopaco; tibiis anticus 3-dentatis, pedum 4 antieriorum unguibus majoribus fissis; clypeo paulo minus lato.

Long. 9-10 mm. Lat. max. 4.5-5 mm.


The dark upper surface with pale median line and sides to the pronotum and pale longitudinal stripe at the middle of each elytron make this an easily recognisable species. It is coarsely punctured, shining, and very thinly but evenly clothed above with minute hairs. It closely resembles another East African species (described in the footnote below*), but is smaller and less pubescent, and the elytral stripe only reaches the margin of the elytron at its front edge.

Family DYNASTIDÆ.


Mubuku Valley, E. Ruwenzori, 6000-7000 ft.

This peculiar beetle was also found by Mr. Scott Elliot between Salt Lake and Wawamba, and by Mr. Wollaston in the Upper Congo.

CYPHONISTES RUFOCASTANEUS Fairm.


E. Congo Forest, 2500-3000 ft.

This species ranges from Old Calabar to Nyasaland. The genus Cephisodatus was made for it by Fairmaire, but the absence of a horn in the male is its only distinctive feature.


Fort Beni, Semliki Valley. A single male specimen agrees exactly with this species, except in having the pronotum less narrowed at the base.

* Adoretus fuscostitatus, sp. n. Testaceus, fronte, prothorace (linea media lateribusque exceptis) elytrorum-que vitta lata suturali alteraque externa medio dilatata, postice abbreviata, abdomineque fuscis; corpore supra et subus aequaliter griseo-hirto; capite griseo rugoso, clypeo semicirculari; prothorace lato, grosse punctate, lateribus valde arcuatis; scutello crebro punctato; elytris grosse fere confuso punctatis, lineis iadistinctis geminato-punctatis; pygidio subtiliter ruguloso, subopaco; tibiis anticus acute 3-dentatis, pedum 4 antieriorum unguibus majoribus fissis; clypeo paulo minus lato.

Long. 10.5-12.5 mm. Lat. max. 5.5-6.5 mm.

ZOOLOGICAL RESULTS OF THE RUWENZORI EXPEDITION.

Family CETONIIDAE.

Mawambi, E. Congo Forest, 2000 ft. (R. B. Woosnam). This is the commonest and most widely-distributed of the Goliath-beetles.

Var. HACQUARDI.
Mubuku Valley, E. Ruwenzori, 6000–13,000 ft. One female specimen.


CERATORRHINA sp. near loricata Jans.
A single female from Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.

A female was taken by Mr. Scott Elliot on Ruwenzori between 6000 and 8000 ft.

E. Congo Forest, 2500–3000 ft. One male specimen.

TMESORRHINA RUNSORICA, sp. n.
Læte olivaceo-viridis, tarsis tibiosque extus vel toto fusco-brunneis, modice depressa, elongata, levis, hand micans, clypeo subquadrato, leviter rugoso, vertice minute punctato; prothorace parce subtiliter punctato, medio levi; scutello levi, acuto; elytris subtilissime subseriatim punctatis, apice extus sat grosse plicatis; pygidio leviter transverse strigoso; corpore subtus levi, metasternae lateribus grosse punctatis et parce fulvo-pilosis, processu plano, antice rotundato:

$\delta$, abdomen sulcato, femorum posticorum margine postica longe sinuata et ciliata. tibiis curvatis, intus longe et dense setosis.

Long. 23–26 mm. Lat. max. 11–12 mm.

Hab. Ruwenzori, 7000–8000 ft. (G. F. Scott Elliot); Mubuku Valley, E. Ruwenzori, 6000–7000 ft.

This species is very closely related to T. pectoralis Moser, but rather broader and smoother, the punctuation, especially upon the pronotum, being considerably finer. The legs have not the bright rosy colouring seen upon the femora and tibiae of T. pectoralis, the femora and the inner part of the front, or of all the tibiae, being green, and the tarsi and remaining part of the tibiae very deep red-brown. The male has a long and thick fringe at the inner edge of the hind tibia, and the hind femur has
also a rather close fringe occupying an emargination of the posterior edge which extends two-thirds of its length from the base. In *T. pectoralis* this emargination is shorter (in the British Museum representative), and the femur is therefore relatively broader. I cannot judge of the variability of these sexual features, as I have seen only one male of each species.

Two females were collected by the Expedition, and a male was found by Mr. Scott Elliot.

Mokia, S.E. Ruwenzori, 3400 ft. Found in numbers.

Mokia, S.E. Ruwenzori, 3400 ft. A single specimen was taken.
These two species of *Gnathocera* range as far as Sierra Leone.

**Plesiorrhina recurva** F. Syst. El. ii. p. 188.
Mokia, S.E. Ruwenzori, 3400 ft. Two specimens very peculiar in coloration, but structurally agreeing with this common West African species.

**Rhabdotis sobrina** G. & P. Mon. p. 234, pl. 44. fig. 4.
Mokia, S.E. Ruwenzori, 3400 ft.; Fort Beni, Semliki Valley. This insect inhabits Eastern Africa from Abyssinia to the Transvaal.

One specimen of the typical form was brought from Mokia, S.E. Ruwenzori, 3400 ft., and several of the var. *flaviventris*, the most abundant phase, from the Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.

**Pachnoda viridana** Bl. Cat. Coll. Ent. 1850, p. 2.
Mubuku Valley, E. Ruwenzori, 6000–13,000 ft. A specimen was also found by Mr. Scott Elliot.

**Glycyphana (Gametis) balteata** Deg. Mém. Ins. vii. p. 642, pl. 48. fig. 4.
Var. zanzibarica.
This insect was found on Ruwenzori by Mr. Scott Elliot.

**Glycyphana (Gametis) tigrina**, sp. n. (Plate VII. fig. 9.)
Flava, supra opaca, corpore subtus, pygidio, pedibus, prothoracis medio, scutello elytrorumque maculis et lineis transversis nigris vel viridi-nigris; modice elongata, depressa; capite crebre punctato; prothorace parce et grosse punctato, lateribus
antice valde contractis, postice paulo dilatatis, basi medio profunde et anguste exciso; scutello longo, obtuso, impunctato; elytris punctis semicircularibus sat parce impressis, lateribus fortiter sinuatis, apicibus acute spinosis; pygidio subtiliter strigoso, metasterni lateribus grosse transverse strigosis, parce hirsutis; abdomine fere laevi, segmentis postice utrinque albo-marginatis.

Long. 17 mm. Lat. max. 8 mm.

_Hab._ Mubuku Valley, E. Ruwenzori, 6000-13,000 ft.

This species is very much like _G. scalaris_ G. & P., but is larger and relatively broader and the yellow parts of the upper surface are more extensive. The pronotum is rather broadly ringed with yellow, and the elytra are of that colour, with the anterior margin, an oblique bar from the shoulder to the suture just behind the scutellum, a transverse bar behind that, an oblique one just before the apex, a spot occupying the apical angle and four or five others black or very deep green-black.

Only a single female was found.

The African group of species to which the two last belong are generally known as _Gametis_, constituting the second section of Burmeister's genus of that name (which was restricted by Lacordaire to that section), but it is only a geographical division which cannot be distinguished from _Glycyphana_ by any structural character. Another name in use for the same group (_Phonobemus_) is a Catalogue name only.


Mokia, S.E. Ruwenzori, 3400 ft.

This insect is extremely abundant from Abyssinia to Natal. Dr. Péringuey has found that the larvae live in the nests of Hawks, feeding either upon the excrement or the sticks composing the nest.

**Leucoscelis plebeja** Kolbe, Stett. ent. Zeit. 1895, p. 290.

Mubuku Valley, E. Ruwenzori, 6000–7000 ft. This species was also found by Mr. Scott Elliot.

**Comithovalgus** sp.

Ruwenzori, 5600 ft. A single female specimen of one of the minute species composing this genus was found by Mr. Scott Elliot.

**Family Carabidae.**


Mokia, S.E. Ruwenzori, 3400 ft. Equally distributed in East and West Africa.
Teflus gracilentus Kolbe, Deuts.-Ost-Afrika, p. 62, pl. 1. fig. 3.
Mokia, S.E. Ruwenzori, 3400 ft.; E. Congo Forest, 2500–3000 ft.

Mubuku Valley, E. Ruwenzori, 6000–13,000 ft. The range of this species extends from Sierra Leone to yasaland, which is remarkable in a genus in which the very numerous species are generally very localised.

Rhysotrichelus sp.
Mokia, S.E. Ruwenzori, 3400 ft. A single female specimen.

Homalolachmus sp.
A small immaculate species was taken by Mr. Scott Elliot upon Ruwenzori and in the E. Congo Forest.

Lebia sp.
Mubuku Valley, E. Ruwenzori, 6000–13,000 ft. A single example.

Platynus (subg. Anchomenus) sp. near striatitarsis Péř.
Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.

Harpalus sp.
Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.

Family Staphylinidæ.

Pæderus sp. near P. duplex Eppels.
One example of a species very close to P. duplex, but considerably larger.

Family Histeridæ.


Hister monitor Lewis, op. cit. 1907, ii. p. 483.
Mubuku Valley, E. Ruwenzori, 6000–13,000 ft. Also found by Mr. C. S. Betton at Lagari, Brit. E. Africa.
Family *Trogositidae*.


Fort Beni, Semliki Valley. This is common from the Gold Coast to Natal.

Family *Erotylidae*.


Between Salt Lake and Wawamba, S.E. Ruwenzori.

Reddish-brown, head nearly black, elytra with a metallic lustre; parallel-sided, elongate, head finely and not closely punctured, thorax rather densely, elytra with deeply impressed rows of punctures. Antennæ with a loosely three-jointed club, the two preceding joints very slightly widened. Eyes moderately finely facetted. Prothorax rather longer than wide, with the sides hardly perceptibly curved and slightly approximating behind. Elytra truncate at the extreme apex. Length 12 mm.

This species is allied to *P. lyctoides* Fowler, but is considerably larger than that or any other described species of the genus. Three specimens were found by Mr. Scott Elliot.

*Platydacne rufovittata* Harold.


Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.

Two specimens were found, which agree with the description of Harold's examples from the interior of Angola, except that the third joint of the antennæ is as long as, but not, as stated by Harold, longer than the fourth and fifth together. The prothorax is not quite so long as it is broad, but its unusual length produces that impression. The three red lines upon each elytron are less reduced than in the original type and each is broken into two parts, but the degree of constancy of these lines cannot yet be judged.

This species, although much more elongate, is very closely related to *Platydacne vittulata*, Fairm., and must unquestionably be placed in Fairmaire's genus, notwithstanding that that author has indicated the shortness of the prothorax as one of its characteristics.

*Amblyscelis nigripennis*, sp. n.

Fulvo-rufus, elytris clavaque antennali nigris; modice elongatus, minute punctulatus, elytris punctato-striatis, parum nitidis, oculis haud magnis.

Long. 6–7 mm. Lat. max. 3'3 mm.

*Hab.* Ruwenzori, 5300 ft.; Belgian Congo, Katanga; N.E. Rhodesia, Serenje.
Three specimens were collected by Mr. Scott Elliot on Ruwenzori, the rest by Mr. S. A. Neave.

The species closely resembles *A. natalensis* Crotch. It is red, with the elytra and the club of the antenna black, but the elytra are rather shorter and less shining than in Crotch's species and the puncturing of the whole upper surface is a little finer and closer. But the most marked distinctive feature is found in the relatively smaller eyes. The head between these is much wider, its width being equal to twice that of the eye, and the whole of this space is finely and evenly punctured. The antennæ are moderately long, with a loose and rather narrow club.

**Family Coccinellidae.**


Mubuku Valley, E. Ruwenzori, 6000-13,000 ft.

This is the only Ladybird of the aphidivorous type so common in most parts of the world which has yet been brought from Ruwenzori.

**Ortalia sp.**

One specimen from the Mubuku Valley, E. Ruwenzori.


Mubuku Valley, E. Ruwenzori, 6000-13,000 ft. A very common species throughout a large part of Africa.


Mubuku Valley, E. Ruwenzori, 6000-7000 ft. This species, referred to as *E. tetracycla* Gerst. in Johnston's 'Uganda Protectorate,' has been described as distinct by Kolbe.

**Epilachna scutellaris** Kolbe, l. c. p. 120, pl. 4. fig. 55.

Mubuku Valley, E. Ruwenzori, 6000-13,000 ft.

**Epilachna annulata** Kolbe, l. c. p. 121.

Mubuku Valley, E. Ruwenzori, 6000-13,000 ft. This was also found by Mr. C. S. Betton at Lagari, east of Victoria Nyanza.

**Epilachna pauli** Weise, Deuts. ent. Zeits. 1897, p. 289.

Mubuku Valley, E. Ruwenzori, 6000-13,000 ft. The British Museum possesses other examples of this species from Abyssinia.
ZOOLOGICAL RESULTS OF THE RUWENZORI EXPEDITION.

Epilachna albomaculata Kolbe, l. c.
Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.

Epilachna amorpha, sp. n.
Nigra, elytris rufis, marginibus omnibus, macula circumscutellari, maculisque 6–16 discoidalibus in fascis transversis plus minusve connexitis nigris; sat dense pubescens, brevis, prothorace postice obtuse angulato; elytris conjunctim subquadratis, coriaceis, punctis aliquidus distinctis, lateribus late marginatis, post humeros fere rectis, apicibus subtruncatis; pedibus sat brevibus, unguibus profunde fissis, baud appendiculatis:
2, abdominis segmento 5° medio postice lobato, 6° apice fisso.
Long. 7–8 mm. Lat. max. 6–7 mm.
Hab. Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.

This species closely resembles E. albomaculata Kolbe in colour and pattern, but is shorter and more irregular in form. It is black, with the elytra red and decorated with 1, 2, or 3 transverse bars formed by the linking together of roundish black spots. The margins and a scutellar and an apical patch are also black. The sides are broadly flanged, very prominent at the shoulders, nearly straight behind them, and subtruncate at the apices.

Two males and one female specimen were taken, all differing in coloration. One has three transverse black bars upon the elytra, another two, and the third specimen only one.

Epilachna sp. near E. kaschbergi Weise, Deuts. ent. Zeits. 1898, p. 106.
A specimen from the Mubuku Valley, E. Ruwenzori (6000–13,000 ft.), almost agrees with the description of Weise’s insect, but it is closely pubescent and the spots are blood-red.

Epilachna serva, sp. n. (Plate VII. fig. 6.)
Nigra, elytris punctis duobus sanguineo-rufis utrinque ornatis, primo pone marginem anticum alteroque apicem versus; corpus omnino pubescens, prothorace haud lato, basi medio arcuato; elytris conjunctim cordiformibus, distincte haud dense punctatis, lateribus sat late marginatis, regulariter arcuatis, apicibus vix productis; unguibus sat profunde fissis, basi appendiculatis.
Long. 7–8·5 mm. Lat. max. 6–7 mm.
Hab. Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.

Blue-black and finely pubescent, with an anterior and posterior more or less round blood-red spot upon each elytron. The elytra are distinctly punctured and broadly
cordiform, with the sides gently and uniformly curved and broadly margined and the apices scarcely produced.

Several specimens were collected.

*Epilachna gemmifera*, sp. n. (Plate VII. fig. 10.)

Elongata, nigra, elytris punctis duobus pallide flavis utrinque ornatis, uno humerali alteroque antecapicali; corpus sat dense pubescens, prothorace haud lato, postice leviter lobato; elytris conjunctim longe cordiformibus, coriaceis, haud punctatis, lateribus leviter et regulariter arcuatis et marginales; unguibus longe et late bifidis.

Long. 8.5 mm. Lat. max. 4.5 mm.

_Hab._ Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.

This is similar to the last species in its colour and markings, but smaller and much more elongate, the elytral spots are pale yellow and the anterior one is placed upon the humeral callus and not behind it. The pubescence is rather fine and close, and produces the effect of a bluish bloom upon the black surface.

The unique specimen is apparently a male.

*Epilachna lucifera*, sp. n. (Plate VII. fig. 11.)

Nigra, elytris fulvo-rufis, punctis duobus pallide flavis utrinque ornatis, primo humerali calloso alteroque antecapicali; corpus tenuiter pubescens; prothorace nitido, haud lato, busi late sat regulariter arcuato; elytris fortiter fere rugose punctatis, conjunctim longe cordiformibus, late marginatis, humeris prominentibus, apicibus productis; pedibus sat longis, unguibus profunde fissis, basi angulatum appendiculatum.

2°, abdominis segmentis 4° et 5° in marginis posticæ medio impressis, 6° longitudinaliter profunde sulcatum.

Long. 9 mm. Lat. max. 6.5 mm.

_Hab._ Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.

This is black, with the elytra of a peculiar livid brown-pink, each having a round yellow spot at the shoulder and another towards the apex. The sculpture is very coarse and the pubescence fine. The elytra are very convex and considerably produced behind, and there is a broad flange at the outer edge of each especially developed near the shoulder, which is a little impressed externally, causing the yellow-spotted callus to stand out very prominently.

The single specimen is apparently a female.

*Epilachna nympha*, sp. n. (Plate VII. fig. 14.)

Nigra, elytris fulvo-rufis, singulo punctis duobus pallide flavis ornato, primo humerali calloso, alteroque antecapicali; corpus sat dense pubescens, prothorace
postice parum lobato, ante scutellum minute emarginato; elytris minutissime coriaceis, humeri punctatis, conjunctim longe et regulariter cordiformibus, extus modice marginatis, humerus vix impressis; unguibus late bifidis, basi humeri appendiculatis:

♀, abdominis segmento 5° postice producto, acuminato.

Long. 8·5 mm. Lat. max. 6·3 mm.

Hab. Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.

E. nympha is coloured and spotted exactly like the previous insect, and almost of the same size and shape, but the elytra are much more finely sculptured, less produced at the apex, and more gently and uniformly curved at the sides. The shoulders are tumid, but there is no definite impression behind them. The female has the 5th ventral segment triangularly produced behind, almost concealing the 6th.

The type is unique.

Epilachna sp.

A single example of another species, perhaps not fully mature.

Epilachna sp. near E. kwoiensis Weise.

Three specimens collected by Mr. Scott Elliot, in which the median black band upon the elytra is interrupted at the suture, represent a variety of the above species, or a new form allied to it.

The number of species of the genus Epilachna occurring in this region appears to be one of the most striking characteristics of the fauna. The genus has been divided by Herr Weise into two, Epilachna and Solanophila, distinguished solely by the structure of the claws. By the adoption of this classification all the new species above described would be called Solanophila, except Epilachna lucifera, which would remain in the old genus. That species, however, is so similar in appearance to E. nympha that it was only after a close examination that I found them to be different; it has no close affinity with any other species of Epilachna. In fact the two series of species do not appear to be naturally separable, as no concomitant character of any kind has been found to confirm the importance attached to the claw-difference, and the geographical distribution merely throws suspicion upon it. Under these circumstances I consider it best to retain all the species in the genus Epilachna.
C. O. WATERHOUSE—COLEOPTERA.

Part II.

By C. O. Waterhouse, P.E.S.

Family Buprestidae.

Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.
There are examples of this species in the National Collection from Somaliland; Mombasa; and Machakos, British E. Africa.

Psiloptera aurocincta Kerremans, Genera Ins., Buprest. p. 95 (1903).
Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.
The type of this species is from Katanga, Belgian Congo. Other specimens in the Museum are from Masai; Kambove; Fwambo, Brit. Cent. Afr.; and Nyika Mts., Nyasaland.

Chrysobothris dorsata Fabr. Mantissa Ins. i. p. 179 (1787).
This species occurs almost all over Africa.

Agriulus continuatus, sp. n.  (Plate VII. fig. 8.)
Very dark bronzy-green above, dull, brownish coppery and shining beneath. Head flat in front, obscure coppery, finely rugose, with two dark rounded rugose spots above, and a cordiform impression below. Thorax transversely finely rugulose, with a strongly marked longitudinal median impression, this impression and the sides clothed with dull yellow pubescence. Above the posterior angle there is an arcuate coppery carina. Elytra gradually narrowed to the apex, where the margins are finely denticulate, closely granulate, and dull; the sutural area impressed, leaving the region of the scutellum convex, the suture itself slightly raised; each elytron with a well-marked smooth, slightly coppery carina, extending from the shoulder to near the apex; the space between this carina and the suture filled with dark golden-yellow pubescence forming a longitudinal stripe. Upper lateral margin of the abdomen clothed with dull golden pubescence, not interrupted at the apices of the segments. Abdomen shining, distinctly but not very closely punctured, with a spot of yellow pubescence on each side of the basal segment; apical segment with the margin thickened and finely denticulate. Sides of the metasternum and episterna densely clothed with yellow pubescence.

Mokia, S.E. Ruwenzori, 3400 ft.
This species in every way closely resembles A. cupriven-tris L. & G., but the yellow pubescence on the upper margin of the abdomen is continuous, and not broken up into spots as in that species; the apices of the elytra are not separately produced into slight points as in A. cupriven-tris.

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Part III.

By C. J. Gahan, M.A.

Family Lycidae.

Lycus (Acantholycus) modestus, sp. n. (Plate VI. figs. 2 & 3.)

Black; the explanate sides of the prothorax and the whole of the elytra, with the exception sometimes of a black spot around the scutellum and a narrow black border to the suture, ochraceous; the lateral margins of the 2nd to 6th segments of the abdomen sometimes fulvous. In general form this species resembles L. latissimus Linn., but the elytra are less strongly expanded laterally and their apices less broadly truncate in the male; the sutural margins of the elytra are almost quite straight from the base to a little past the middle and then begin to curve or bend inwards, the one elytron from that point onwards overlapping the other. The forceps of the male is similar in form to that of L. latissimus; and by means of this character, as well as by the presence of a sharp outer angle or short tooth to the truncated apex of the elytra in the male, the species may be distinguished from L. constrictus Fähr., to which also it has a strong general resemblance.

Length ♂ 20 mm.; breadth at base of elytra 5, at middle 11 mm.
Length ♀ 19–20 mm.; breadth at middle of elytra 7½–10 mm.

Hab. Ruwenzori, 5300 ft. (G. F. Scott Elliot), Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.

Variation.—In one female example the elytra have an apical black area which is widest at the suture, where it joins the black sutural band.

Lycus vittatus, sp. n. (Plate VI. fig. 1.)

♂. Black; pronotum yellow at the sides; elytra yellow, marked with three broad longitudinal black bands—one common, sutural, the others along the middle of each elytron, beginning a little behind the shoulders and joining the sutural band at the apex. Elytra subovate, narrower at the base than the base of the prothorax, elevated near the suture at a little past the middle of their length, dehiscent from just behind this elevation and having the sutural margins somewhat sinuate; rounded externally at the apex, the sutural angles more or less obtuse; interspace between the third and fourth costae slightly swollen near the base. Forceps tridentate near the apex.

♀. Elytra much narrower than in the male and nearly parallel-sided, the submedian black band of each elytron narrow and short, extending along the third costa for only about one-third of the length of the elytron from the apex. Seventh ventral plate of
the abdomen notched in the middle at the apex, so as to have the appearance of being provided with two short teeth.

Length 14–15 mm.; breadth of \( \sigma \) at base of elytra 3\( \frac{1}{2} \), at middle 8–9\( \frac{1}{2} \) mm.

_Hab._ Ruwenzori, 6000–8000 ft. (G. F. Scott Elliot).

This species appears to be most nearly allied to _L. aspidatus_ Murray, agreeing with it pretty closely in the form of the male forceps, in which, however, the terminal curved tooth is slightly longer and more pointed. There is only one other species of the genus known to me having a similar form of forceps*. The elytra are narrower and longer than in _aspidatus_, differently marked with black, and not nearly so raised behind the middle near the suture.

**LYCUS murayi** Bourg., var.


The examples from Ruwenzori which I refer to this species constitute a slight variety differing from the typical form in the disposition of the black colour on the elytra; the yellow or fulvous space lying between the second and fourth costae of each elytron extends almost up to the apical margin.


**LYCUS (HAPLOLYCUS) sinuatus** Dalm., var.


Elytra yellow, with a small apical black spot, which is extended anteriorly along the suture for nearly one-fourth of the length of the elytra, but becomes gradually shorter towards the sides. In other respects this variety agrees very well with examples of the typical form from Sierra Leone.

Length 16 mm.; breadth at shoulders 4, at middle of elytra 7 mm.

_Hab._ Ruwenzori, 6000–8000 ft. (G. F. Scott Elliot).

**LYCUS (LYCOSTOMUS) RUNSOBIENSIS**, sp. n. (Plate VI. fig. 4.)

Black; lateral margins of the prothorax, except near the base and apex, and the elytra entirely fulvous-red. Proboscis long. Prothorax with its sides converging anteriorly, slightly sinuate, rounded in front. Elytra rather flat, gradually widening

* This species, _L. inamplusus_ Bourg., is remarkably like _L. ampliatus_ Fähr., of which at first sight it might be taken as a variety, but the decided difference in the form of the forceps of the male (a character not noticed by M. Bourgeois) shows that it is a good and distinct species.

† A species very closely allied to this is the _Pyrochroa proboscides_ of Fabricius (Sp. Ins. i. p. 255, 1781), the type of which, a male specimen in the Banksian Cabinet, has been figured by Olivier (Ent. ii. no. 29, pl. i. fig. 6). This type was mistakenly supposed to be a female, and, in consequence, the species has not hitherto been satisfactorily identified.
from the base up to about one-third of their length from the apex, then narrowed; rounded at the apex; each furnished with four rather feebly raised costae, interstices subreticulate punctate; the surface covered with a very short reddish pubescence. Forceps of male not mucronate, curved and somewhat blunt at the apex.

Length 13 mm.; breadth at base of elytra 3, at one-third from apex 4 mm. 

_Hab._ Mubuku Valley, E. Ruwenzori, 5000–7000 ft. One male example.

**XYLOBANUS sp.**

Sides of the prothorax, the whole of the elytra, and the last joint of the antennæ yellow; all the remaining parts black. In general form and structure this species agrees pretty closely with _X. sulcicollis_ Murray, of which it is probably only a variety.

Length 10; breadth at base of elytra 2, at middle 3 mm.

_Hab._ Ruwenzori, 6000–8000 ft. (_G. F. Scott Elliot_). One female specimen.

**METRIORRHYNCHUS sp.**

A species apparently closely allied to _Metriorrhynchus semiflabellatus_ Murray, but differing from it in having the elytra entirely yellow, the prothorax somewhat narrower and not very distinctly carinate above.

_Hab._ Mubuku Valley, E. Ruwenzori, 6000–7000 ft. One male example.

**FAMILY TELEPHORIDÆ.**

**TELEPHORUS sp.**

E. Ruwenzori, 5000–7000 ft. One example.

**FAMILY MELYRIDÆ.**


Ruwenzori, 5300 ft. (_G. F. Scott Elliot_).

**HAPALOCHRUS sp.**

Ruwenzori, 5300 ft. (_G. F. Scott Elliot_).

**MELYRIS MONTICOLA, sp. n.** (Plate VI. fig. 6.)

Green and almost glabrous; antennæ, palpi, and tarsi black or brownish-black; femora of all the legs and the coxae of the anterior two pairs yellow; tibiae green. Metasternum and abdomen with a somewhat brassy lustre. Head and prothorax reticulate-punctate, the punctures ocellate. Prothorax marked with a short groove along the middle of the disc, carinate near each side, the carina somewhat sinuate. Elytra broader than the prothorax, parallel-sided, more than twice as long as their
width across the base, rounded at the apex, each furnished with three sharp distinct costae, the intervals rather strongly and very densely punctured. Tarsal claws with a distinct tooth at about the middle of their length.

Length 9½–10; breadth 3½ mm.


This species somewhat closely resembles M. nobilis Gerst., but is relatively longer and narrower, and further distinguishable from it by the green colour of the tibiae and the more distinct groove along the disc of the prothorax. In M. nobilis the elytra are not more, but rather less, than twice as long as their width across the base.

**Family Cleridae.**


Mokia, S.E. Ruwenzori, 3400 ft.; Zambesia and Natal.

**Family Bostrychidae.**


Mokia, S.E. Ruwenzori, 3400 ft.

*Bostrichoplites cornuta* Oliv. Ent. iv. no. 77, p. 7.

Fort Beni, Semliki Valley.

**Family Elateridae.**

*Alaus trifasciatus*, sp. n. (Plate VI. fig. 5.)

Black; the prothorax densely covered with greyish scales, and marked with three opaque black spots—two, rounded or suboval, on the disc in front of the middle, the third subquadrate on the middle of the basal declivity; elytra reddish brown, densely covered with luteous-yellow scales, and marked each with two or three oblique subparallel black bands; the shoulders and the depression around the scutellum also black; body beneath black, with a covering of ash-grey scales, the last segment fringed posteriorly with fulvous hairs; antennae, mouth-parts, and legs fulvous-brown. Antennae rather short, scarcely extending to the middle of the prothorax; third joint nearly twice as long as the second, and equal in length to the fourth. Prothorax a little longer than its breadth across the middle, the sides sub-sinuate, the hind angles divergent, not carinate, the ante-scutellar tubercle feebly raised, transversely depressed at its base, disc evenly and not very strongly convex. Scutellum strongly and somewhat abruptly sloped in front, horizontal and slightly transverse behind. Elytra
striate, the strie punctate, the intervals between the striæ convex; apices sinuately emarginate. Last ventral segment rounded at the apex in the ♂, truncate, and more densely fringed with hairs, in the ♀.

Length 19–27; breadth 5–8 mm.

Hab. Mubuku Valley, E. Ruwenzori, 6000–13,000 ft. One male and two female examples.

In the male specimen the third (posterior) black band on the elytra is wanting, and the other two bands are neither so broad nor so distinct as in the females.

This species is quite distinct from any other of the genus known to me. It greatly resembles *A. merrens* Germ., both in general outline and in the striation of the elytra, but is quite different in colour, and differs also in the longer third joint to the antennæ, the feebler ante-scutellar tubercle at the base of the pronotum, and the emarginate apices to the elytra.


Mokia, S.E. Ruwenzori, 3400 ft.; Uganda (Colonel C. Delmé Radcliffe); Entebbe (Sir H. H. Johnston); occurs also at Gondokoro on the White Nile (W. E. Regmes-Cole) and in Abyssinia.

*Tetralobus mystacinus* Cand, Mon. des Elatérides, i. p. 372 (1857).

Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.; British East Africa, Leikipia (Dr. J. W. Gregory); German East Africa, Manboia; and Senegal.


Mokia, S.E. Ruwenzori, 3400 ft.; occurs also throughout the whole of Eastern Africa from Abyssinia to Natal.

**Family Tenebrionidae**

*Opatrum* sp.

Ruwenzori, 5300 ft. (G. F. Scott Elliot); and Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.

**Family Lagriidae.**

*Lagria villosa* Fab.

Fort Beni, Semliki Valley.

*Lagria rugipennis*, sp. n. (Plate VI. fig. 12.)

Head and prothorax black, elytra of a dark mahogany-brown colour; legs dark brown, abdomen yellowish. Head densely punctate. Prothorax transverse, widest at about one-third from the apex, thence narrowed gradually towards the base, very
densely punctate. Elytra gradually widened from the base for nearly two-thirds of their length, then narrowed towards the apex; the surface very distinctly wrinkled all over, the ridges have generally a somewhat transverse direction, but are irregular in their course and become more or less convoluted. The antennæ of the male extend a little past the base of the elytra, and the terminal joint is not longer than the penultimate.

Length 15–16; breadth at base of elytra $5\frac{1}{2}–5\frac{1}{2}$ mm.

_Hab._ Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.

**Lagria** spp.

Four other smaller species of _Lagria_ were collected in the Mubuku Valley, E. Ruwenzori.

**Family Meloidæ.**

**Meloe monticola** Kolbe, Deuts.-Ost-Afrika, Coleopt. p. 256 (1897).

Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.; Kilimanjaro, 1500 metres, and Usambara.


Mokia, S.E. Ruwenzori, 3400 ft.

_Mylabris (Coryna) apicicornis_ Guér. Lefèbr. Voy. en Abyssinie, p. 324, pl. 5. fig. 6 (1842).

Mokia, S.E. Ruwenzori, 3400 ft.; Abyssinia, British and German East Africa.

_M. dorsalis_ Gerst. appears to me to be only a slight variety of this species, distinguished by the ferruginous-brown colour of the anterior two-thirds of the elytra.

**Mylabris (Decatoma) mubukuensis**, sp. n.

Black, slightly tinged with steel-blue; sparsely furnished with longish yellowish-grey hairs; elytra marked each with two longitudinal yellow bands and two yellow spots—one band, mid-dorsal, extends in a straight line from the base for nearly two-thirds of the length of the elytron and is slightly expanded outwardly at its hinder end, one of the two spots is in a line with this band and about midway between it and the apex of the elytron; the second band runs along the outer margin of the elytron for slightly more than half its length from the base, and the second spot is halfway between its hinder end and the apex. Antennæ black, the first five joints nitid, the last five somewhat dull, gradually thickened, the tenth joint almost as long as the
preceeding three joints united. Head closely punctate, with a smooth, feebly raised, median line extending from the clypeus to the occiput.

Length 10; breadth 3 mm.

_Hab._ Mokia, S.E. Ruwenzori, 3400 ft.

This species is apparently very nearly allied to _M. atrochalybea_ Mars. from Angola, and may possibly prove to be only a variety of it.

_Horia nitida_, sp. n. (Plate VI. fig. 13.)

Red; antennae, tibiae, tarsi, and apical part of femora black. Head rather large, not much narrower (including the eyes) than the front part of the prothorax; eyes smaller and more widely separated than in other species of this genus (the space between the upper lobes of the eyes measures in the type almost 3 mm. broad, whereas it is not more than 2 mm. broad in specimens of the same size belonging to _debyi_ or _africana_). Prothorax widest across the base; slightly narrowed, with its sides sinuate, between the base and the middle; its upper surface nitid, minutely and sparsely punctate, feebly impressed along the middle. Elytra subcoriaceous, impunctate and very glossy.

Length 28; breadth 8½ mm.

_Hab._ Mokia, S.E. Ruwenzori, 3400 ft. One female example.

This species greatly resembles _H. africana_ Auriv, both in colour and sculpture, but may be readily distinguished from it by the form of the prothorax and by the smaller and more widely separated eyes.

**Family CERAMBYCIDE.**

**Subfam. PRIONINÉ.**


Fort Beni, Semliki Valley. Commonly distributed throughout nearly the whole of Tropical and Southern Africa.

**Notophysis Johnstoni** Lameere, Prionides Trop. Africa, Faune Congo, p. 24. (Plate VI. figs. 8 & 9.)


Mubuku Valley, E. Ruwenzori, 6000–13,000 ft. Several examples of both sexes.

This species was founded upon a single male specimen from Entebbe in Uganda, and was described by me as follows:—"Mandibles long, divergent from the base to the middle and then strongly incurved, so that when closed they circumscribe a somewhat transversely elliptical space; they are gradually and regularly narrowed from the middle to the apex. The antennae do not reach beyond the middle of the elytra; the first joint is relatively as long as in _C. forcipatus_ Har., but somewhat thicker, and each
of the joints from the third to the tenth is gradually widened from the base to within a short distance of the apex, being a little more prominent in front with the apical angle rounded off; the upper face of each of these joints is sparsely punctate, the lower furnished with an elongated fossa, which is very densely and minutely punctate. The prothorax has on each side a strong submedian tooth, behind which it is obliquely and sinuately cut away towards the basal margin, the latter being much narrower than in other species of the genus; the pronotum is smooth and almost impunctate except in two depressed spaces near each side—one broader close to the lateral margin in front of the submedian tooth, the other narrower close to the oblique lateral margin behind the tooth."

I am now able to supplement the above description by stating the differences that characterise the female:—Antenne less than half the length of the body, not extending beyond the basal fourth of the elytra. Mandibles shorter and stouter than in the male and less strongly curved, the space circumscribed by them when closed being subcircular, and not transversely oval. Pronotum with its sides converging slightly from the submedian tooth to the apex, the surface punctate, the punctures large, but not close except on the anterior part. The sides of the pronotum behind the submedian tooth are not depressed nor densely punctate as in the male, but are merely marked with a few large sparse punctures.

Subfam. Cerambycina.

Mokia, S.E. Ruwenzori, 3400 ft. Occurs also throughout nearly all East Africa, extending thence southwards to Natal.

Mokia, S.E. Ruwenzori, 3400 ft.; Uganda, Fort Ternan (C. S. Betton), and West Africa.

Mokia, S.E. Ruwenzori, 3400 ft.; and Matabeleland.

Clytus (Perissus) wollastoni, sp. n. (Plate VI. fig. 7.)

Head densely covered with luteous-white pubescence, prothorax similarly covered with luteous-white pubescence except along the middle, which is marked with a blackish-brown velvety band; this band is ovately dilated behind the middle, gradually narrowed in front and abruptly constricted near the base. Elytra dark brown, with a broad submarginal luteous-white band extending from base to apex, and a subsutural luteous-grey band which widens out towards the base and is also widened in the posterior third of its length. Body beneath grey. Legs dark brown. Antenne
filiform, extending to the apical fourth of the elytra. Sides of the elytra only very slightly expanded downwards near the base. First joint of hind tarsus more than twice as long as the second and third united.

Length 11 1/2; breadth 3 mm.

_Hab._ Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.

Family _Lamidae._

_Dityloderus balteatus_ Auriv. Archiv for Zool. i. p. 316 (1903).

Mubuku Valley, E. Ruwenzori, 6000–13,000 ft. This species occurs also in German East Africa: Itumba in Usaguru (Rev. A. Wood) and West Usambara (type).

The specimens from Ruwenzori agree fairly well with the description, but are all smaller than the type described by Aurivillius, being only from 12–13 1/2 mm. in length, as compared with the 15 mm. of the type.

Through an unfortunate slip of the pen, I stated when characterising the genus _Dityloderus_ that the tarsal claws were divergent. They are, as a matter of fact, quite distinctly divaricate, and the claw-joints are broadly dilated near the end.


Ruwenzori (Sir II. II. Johnston).

_Prosopecera (Timoreticus)_ sp.

Mokia, S.E. Ruwenzori, 3400 ft. One female example.


Ruwenzori, 7000–8000 ft. (G. F. Scott Elliot); Uganda, Zanzibar, and Congo.

_Sternotomis rursoriensis_, sp. n. (Plate VI. fig. 10.)

Black, faintly covered with grey pubescence; head, prothorax, and the sides of the body beneath banded, and the elytra banded and spotted with a dense pubescence varying from a pale greenish-white to a buff colour. The head has a median longitudinal band on the front, a narrow transverse band above, and a short band or spot below the anterior part of each eye; the upper band is sometimes interrupted at each
side so as to cut off a median spot. The prothorax has three narrow transverse bands—one at the apical and one at the basal margin, the third curving sinuously across the middle; the surface of the prothorax is somewhat rugose and marked with a few strong punctures between the middle band and the posterior groove; the anterior area lying in front of the anterior groove is almost quite smooth. The elytra are, as compared with those of other species of the genus, feebly punctate, and each has a short longitudinal costa running at a little distance from the suture; the costa disappears behind at about one-sixth from the apex, and becomes more or less obsolete anteriorly in front of the middle; the markings of the elytra consist of two bands and about twelve spots on each; the form and disposition of the bands and spots is very much the same as in \textit{S. consularis} Har., but there is no spot at the extreme apex as in the latter species.

Length 17-24; breadth 6\frac{1}{2}-10 mm.

\textit{Hab.} Ruwenzori, 6000-8000 ft. (G. F. Scott Elliot); Mubuku Valley, E. Ruwenzori, 6000-13,000 ft.

This species can be distinguished from most others belonging to the genus by the feebler puncturation of the elytra. \textit{S. bohemani} Chevr. approaches it in this respect; but the latter exhibits two costae on each elytron, and the inner costa remains distinct for a considerable distance in front of the middle.

\textbf{Entebbia bipunctata} Gahan, in Johnston, Uganda Protectorate, i. p. 463 (1902). (Plate VI. fig. 16.)

Mubuku Valley, E. Ruwenzori, 6000-13,000 ft. One female specimen.

This species was originally described from the male sex only, obtained by Sir H. H. Johnston at Entebbe in Uganda. The female differs from the male in having the antennæ only about three-fourths of the length of the body, the small, black, nitid spots near the base of the elytra larger and more numerous but of different sizes, the lateral and subsutural vitæ of the elytra greener and more distinct, the impression on the vertex of the head broader and somewhat differently shaped.

\textbf{Ceroplesis reticulata}, sp. n. (Plate VI. fig. 11.)

Sparsely furnished with erect black hairs. Antenniferous tubercles subcontiguous. Black with red markings. Head red on the lower part of the front, and on a band behind each eye that extends obliquely downwards and backwards along the cheek. Prothorax marked with a transverse red band at the base and another at the apex. Elytra marked reticulately with red pubescence; strongly punctured at the base, each slightly produced and rather pointed at the apex. Body beneath greyish-black, with a red band at each side of the metasternum. Legs greyish-black for the most part; the femora more or less reddish, and the tibiae also reddish in the middle. Antennæ of the male from one-fifth to one-third longer than the body.

Length 20-28; breadth 6-9 mm.
Hab. Mokia, S.E. Ruwenzori, 3400 ft., and Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.

This species resembles *C. marmorata* Reiche in being furnished with erect black hairs and in having the elytra somewhat pointed at the apex, but differs from it by its less closely punctured elytra, more closely approximated antennary tubercles, and its longer antennae, the male of *C. marmorata* having the antennae scarcely longer than the body.


Mokia, S.E. Ruwenzori, 3400 ft.


Ruwenzori, 7000–8000 ft. (G. F. Scott Elliot); Mubuku Valley, E. Ruwenzori.


Mokia, S.E. Ruwenzori, 3400 ft.

*Phrynetida oligoca* Oliv. Encycl. Méth. vii. p. 462 (1792); Entom. iv. no. 67, p. 80, pl. 8, fig. 53.

Ruwenzori, 6000–8000 ft. (G. F. Scott Elliot).


Ruwenzori, 6000–8000 ft. (G. F. Scott Elliot).

*Phrynetola ellioti*, sp. n. (Plate VI. fig. 18.)

Black; body beneath, femora and tibiae rather densely covered with ochreous-brown pubescence; head, thorax, and elytra with a somewhat similarly-coloured, but less dense pubescence, varied on the elytra with some oblique dark brown bands, one of which, on each side, begins at the outer margin behind the middle and extends obliquely forwards towards the suture, near which at about the middle of the length of the elytron it is marked with a small spot of ochreous pubescence; antennæ rather thinly covered with grey or ochreous-grey pubescence; tarsi grey above. Lower lobe of each eye not so long as the cheek below it. Prothorax furnished with a very large, glabrous, discal tubercle, which is marked with a median groove along its whole length. Elytra rugose-granulate at the base both on the disc and at and behind the shoulders, punctate thence up to about the middle, behind which the punctures become much smaller and rarer, until at a short distance beyond it they almost entirely disappear.

Length 19–29; breadth 5½–10½ mm.

Hab. Ruwenzori, 6000–8000 ft. (G. F. Scott Elliot); Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.

This species resembles *P. heephora* Thoms. and *P. bulbifera* Kolbe in the size and form of the large discal tubercle on the prothorax, this tubercle being, however,
marked along its whole length with a distinct but not very deep median groove. It is further distinguished from the two species mentioned by the smaller size of the eyes, by the nearly uniform ochreous-brown tint of the pubescence that covers the ventral side of the body, and by the greater rugosity of the base of the elytra. The pubescence in this species seems liable to be rubbed off easily, for out of several specimens that I have seen only one or two have retained the greater part of the pubescence, most of the others presenting a shiny black colour and being bare of pubescence except over a few patches generally placed at the sides of the thorax, apex of the abdomen, and at the subsutural spot near the middle of each elytron.

Phrynnetopsis kolbei, sp. n. (Plate VI. fig. 14.)

Dark brown, somewhat densely covered with pubescence which is for the most part of a greyish colour, mixed on the upperside with patches of fulvous-brown and dark brown; head spotted in front with fulvous and dark brown; dark velvety-brown above, marked with oblique fulvous lines, two of which converge in front to meet between the eyes; scutellum marked with two fulvous lines; elytra marked each with three short oblique fulvous-white lines or bands just behind the middle, the outermost of these three bands is broader than the others and from its inner end the middle band runs backwards and curves inwards. Prothorax with three small and somewhat acute tubercles on the disc. Elytra more than twice as long as their conjoined width across the base, strongly rugose-punctate for about half their length from the base along the sides and a less length along the disc, each with a short basal crest made up of a series of granules or small tubercles. Body beneath more uniformly grey than the upperside; the episterna of the mesothorax marked each with a white spot bordered on the inner side with dark brown.

This species closely resembles P. fuscicornis Chev. (forticata White) in coloration, but is less spotted with dark brown above, and but little spotted on the ventral side and legs. It also differs in having the two outer white bands on each elytron united with one another. The chief difference, however, is in the form of the elytra, these being relatively longer and narrower than in P. fuscicornis.

Length 26; breadth 9 mm.

Hab. Mubuku Valley, E. Ruwenzori, 6000-13,000 ft. One female example.

Sophronica grisea Auriv. in Sjöstedt, Kilimandjaro-Meru Expedition, Coleoptera, p. 150 (1908).

Mubuku Valley, E. Ruwenzori, 6000-7000 ft.; Uganda, Entebbe (M. Rothschild); and Brit. East Africa, Lagari (C. S. Betton).

Glenea montivaga, sp. n. (Plate VI. fig. 15.)

Head and prothorax black; the head covered with greyish or greyish-white pubescence on the sides and on all but the middle of the front, vertex with two closely...
approximated greyish-white lines; prothorax marked with three linear greyish-white bands above, and a broader band along the lower part of each side. Scutellum brownish or black. Elytra reddish-brown or brown, covered with a not very dense grey pubescence, and marked with two transverse blackish-brown bands, placed one before the middle, the other between the middle and the apex; near the apex itself is a third very faint dark brown band. Body beneath and legs black, covered densely with grey pubescence; the abdomen marked with a row of small subglabrous black spots along each side. Antennae black, a little longer than the body in the male, extending to posterior fifth of the elytra in the female. Prothorax distinctly and somewhat thickly punctured. Elytra irregularly and rather sparsely punctured on the disc, the punctures being larger and more thickly placed on the anterior dark band; bicarinate along each side, the lower carina feeble and obtuse; truncate and slightly emarginate at the apex, with the outer tooth strong and the sutural shorter. First joint of the front and middle tarsi slightly elongated and dilated in the male; the tarsal claws all appendiculate in the male, simple in the female.

Length 12—13½; breadth 4—4½ mm.

_Hab._ Mubuku Valley, E. Ruwenzori, 6000—13,000 ft.

This species resembles _G. quinquelineata_ Chevr. in the banding of the prothorax and elytra, but the latter have the ground-colour almost entirely concealed by a covering of grey pubescence, and are destitute of erect hairs, excepting a few near the apex.

**Glenea** sp.

Ruwenzori, 6000—8000 ft. (*G. F. Scott Elliot*). One somewhat rubbed specimen.


Ruwenzori, 2000 metres (*Dr. F. Stuhlmann*).

**Nupserha** sp.

Ruwenzori, 5300 ft. (*G. F. Scott Elliot*).

**Nupserha** sp.

Ruwenzori, 6000—8000 ft. (*G. F. Scott Elliot*).

**Dirphya** *delecta*, sp. n. (Plate VI. fig. 17.)

Head black, with the mouth-parts (apex of mandibles excepted) and the lower border of the genae rufous; the whole of the thorax, the basal sixth part of the elytra, the coxae, femora, and the base of the front and middle tibiae red; abdomen black, with

* The name *Dirphya* given to this genus by Pascoe has priority over _Nitoeria_ Thoms. by at least a few months (see note by Pascoe, Trans. Ent. Soc. (2) v. p. 61), and, moreover, the name _Nitoeria_ is preoccupied in Mollusca.
the first segment entirely and the middle of the second testaceous, densely covered with silvery pubescence, the sides of the second segment and a transverse band, interrupted in the middle, on the fourth segment fulvo-sericeous; antennae a little longer than the body in the female, black, with the last four joints fulvous. Head glossy in front and at the sides; vertex somewhat dull, thickly punctured at the borders of the eyes, sparsely elsewhere. Prothorax with deep anterior and posterior grooves, furnished above, between the grooves, with fine tubercles—three on the disc and one, somewhat oblique, at each side. Scutellum rufous, with a covering of greyish silky pubescence. Elytra narrowed towards the middle, slightly expanded some distance beyond the middle and then again narrowed towards the apex, the latter truncate; strongly and somewhat thickly punctured, the punctures irregular near the base and apex, but placed in rows along the intermediate area, six rows being distinguishable at the median narrow part of each elytron. There is a broad shallow groove or depression along each elytron near the suture. Last ventral segment of female emarginate at the apex, and marked with a very faint groove along the middle.

Length 24; breadth 6 mm.

_Hab._ Mubuku Valley, E. Ruwenzori, 6000–7000 ft.

**Phytecia vaga**, sp. n.

Black; the labrum, epistome, palpi, genal edge, elytra, and the greater part of the front legs yellowish-testaceous; third to sixth joints of the antennae reddish-brown at the base. Head thickly and distinctly punctured; front transverse, convex below, slightly depressed above, marked with a feeble median groove. Prothorax parallel-sided, slightly broader than long, densely punctate, fairly carinate along the middle. Elytra obtusely bicarinate on each side, strongly and thickly punctured, the punctures subseriately arranged on the disc, in a single row between the carinae, and irregularly placed on the side below the lower carina; apices truncate and slightly emarginate, with a very short sutural tooth and a longer one at the outer angle. Tarsal claws bifid, the inner division being almost as long as the outer one. Antennae a little longer than the body in the male, scarcely as long as the body in the female; third and fourth joints subequal, each a little longer than the first, fifth and succeeding joints becoming gradually shorter and very slightly thicker. Last ventral segment rounded at the apex in the male, narrowly emarginate and having a deep depression in the female.

Length 8½–10; breadth 2–2½ mm.

_Hab._ Ruwenzori, 7000–8000 ft. (G. F. Scott Elliot).
Family Chrysomelidae.

Subfam. Sagrinë.

Sagra murrayi Baly, var. stuhlmanni Kolbe, Deuts.-Ost-Afrika, iv. Coleopt. p. 325, pl. iv. fig. 51.

Subfam. Criocerinë.


Crioceris sp.
Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.

Subfam. Megalopinë.

Macrolopha quadrimaculata, sp. n. (Plate VII, fig. 1.)

♀. Black, with the head, the sides of the metasternum and of the first four abdominal segments, and the greater part of the elytra brownish-red; elytra marked each with two yellow spots—one smaller placed laterally a little behind the shoulder, the other occupying the middle of the posterior declivity at a short distance in front of the apex. Head closely and rather strongly punctate above, almost impunctate in front; clypeus with a slightly raised, triangular, rufous area in the middle, and a membranous, yellowish border in front; labrum and mandibles blackish. Antennae scarcely extending past the middle of the prothorax, third joint nearly as long as the first, fourth subequal in length and thickness to the second, fifth triangular, sixth to tenth transverse, subserrate. Prothorax transverse, strongly angulate close to the base, narrowed in front; notum densely punctulate and covered with grey pubescence, but having three nude glossy lines, one along the middle and one, shorter and somewhat curved, between the middle and each side. Scutellum pubescent, punctulate; truncate at the apex. Elytra very closely punctured, thinly covered with short grey pubescence. Body beneath for the most part sparsely punctate and pubescent; the pleur of the meso- and metathorax very closely punctate, the sides also of the last three or four segments rather densely punctate; last ventral segment with a deep transverse or semilunar depression at the apex. Legs very closely punctulate.

Length 10\(\frac{3}{4}\); breadth 4\(\frac{3}{4}\) mm.

♂. Ruwenzori, 6000–8000 ft. (G. F. Scott Elliot).

This species resembles M. murrayi Baly in general form, but differs considerably from it in colour, puncturation, &c. The pronotum is similar in outline to that of
M. murrayi, but is less convex on the disc, and has the anterior and posterior grooves less strongly marked.

*? Pachyphora hirsuta* Jac. P. Z. S. 1898, p. 216, pl. 22. fig. 1.

_Antonaria hirsuta_ Jac. Genera Insectorum, Megalopidae, p. 8 (1905).

Ruwenzori, 7000-8000 ft. (G. F. Scott Elliot). One female specimen.

_P. hirsuta_ was described from examples taken at Umfuli River in Mashonaland, and as there are no females from that locality available for comparison, it is with some doubt that I refer the specimen from Ruwenzori to this species. In this specimen the head and prothorax are darker and less pubescent than in the male type, the abdomen also is darker, and the legs are almost entirely black. The pygidium of the female is much larger, and especially longer, than that of the male, and the last ventral segment has a deep transversely oval pit or depression at the apex.

The species seems to me not altogether well-placed by Jacoby in the genus _Antonaria_, the eyes being smaller and less prominent, and the head more gradually narrowed behind than in _A. murrayi_ Westw., the type of that genus; the epimera of the prothorax are somewhat exceptional in character, since they do not meet in the middle line as in the vast majority of the Megalopidae, but remain separated, with the prolonged prosternum visible between them.

**Subfam. Clytrinae.**


Mokia, S.E. Ruwenzori, 3400 ft.

**Subfam. Eumolpinae.**

_Celasposoma consimile_, sp. n.

Oblong-ovate, varying in colour from dark metallic green to coppery brown. Last five joints of the antennae dilated, black and opaque, the first six nitid, more or less metallic. Prothorax thickly and rather strongly punctured. Elytra minutely and rather closely punctured, the surface slightly aciculate or coriaceous, especially in the female, the shoulders prominent.

Length 8-9; breadth 4½-5½ mm.

Mubuku Valley, E. Ruwenzori, 6000-13,000 ft.

1 ♂ and 2 ♀♀.

Nearly allied to _C. fairmairei_ Lefèv. and _C. kraetzii_ Jac., but having the elytra relatively a little shorter and much more finely punctured.

**Subfam. Chrysomelinæ.**


Ruwenzori, 2000 metres (Dr. F. Stuhlmann).
Plagiodes impolita Vogel, Nunquam Otiosus, i. p. 134 (1871).
Ruwenzori, 6000–9000 ft. (G. F. Scott Elliot); Mubuku Valley, E. Ruwenzori, 6000–7000 ft.

Subfam. Halticinæ.

Haltica pyritosa Erichs. Wiegm. Archiv füür Nat. 1843, i. p. 266.
Ruwenzori, 7000–8000 ft. (G. F. Scott Elliot).

Mubuku Valley. E. Ruwenzori, 6000–13,000 ft.

Subfam. Galericinæ.

Oides pallidipennis, sp. n. (Plate VII. fig. 2.)

Head, prothorax, body beneath, legs, and antennæ black; elytra entirely of a luteous-white colour. Prothorax about twice as broad as it is long, sparsely and very feebly punctate, nitid; the basal angles more or less distinct, but very obtuse, the anterior angles acute. Scutellum triangular, acute at apex, the base and sides nearly equal in length. Elytra ovate, nitid, very finely and rather sparsely punctate, furnished with a tuberculiform elevation at each shoulder; epipleures short.

Length 8–10; breadth $3\frac{3}{4}$–$4\frac{3}{4}$ mm.


This species is very distinct from all other described African species of the genus. The only species resembling it in colour is O. flavipennis Weise; but in that the suture and margins of the elytra are narrowly black, the elytra are carinate at the shoulders and dentate at the apex.


Ruwenzori, 5300 ft. (G. F. Scott Elliot); Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.

* The genus Diacantha, as it is here understood, is equivalent to the genus Promidia Weise. It corresponds to the genus Diacantha Chevr. as defined by Chapuis in 1875 (Gen. des Coléopt. xl. p. 161), and of which D. dregei Dej. may be taken as the type, a figure of this species having been published by Chapuis. Von Harold in 1879 gave a different interpretation of the genus by taking as the type a species (*bidentata* Fab.) which was not included in the genus either by Chevrolat or by Dejean. Reiche also (1847) assigned characters to the genus, but they were of scarcely more value for its identification than those originally given by Chevrolat in 1844 (D'Orbigny, Dict. Univ. Hist. Nat. iv. p. 718). I find it necessary to give this explanation, because, although the facts have already been pointed out by Jacoby, Herr Weise still persists in giving the name Diacantha to the genus erroneously so named by Harold and which was described by Chapuis in 1879 under the name of Hyperscantha.
Diacantha passeti Allard, var.


Ruwenzori, 5300–8000 ft. (G. F. Scott Elliot). This variety, distinguished by the reduction of the black coloration of the elytra to a narrow sutural and a narrow marginal band, was obtained also by M. Maurice Rothschild at Malo, in British East Africa, and by Mr. C. S. Betton at Lagari. The examples from Lagari include colour-forms intermediate between suturalis and pygidialis.

Diacantha vicina, sp. n.

♂. Head (a transverse testaceous spot on the vertex excepted), prothorax, scutellum, body beneath, and legs black; antennae brownish-black, with the first three joints testaceous yellow; elytra purplish, with an elevated basal area on each yellowish. Pronotum with a transverse impression on each side near the middle, and with a narrow transverse elevation a little in front of the basal margin; this elevation has a rather sharp posterior edge, and at the middle is continued backwards to the base, its entire edge being somewhat of this shape: \( \_ \_ \_ \). Scutellum slightly concave, glossy, in the form of an equilateral triangle. Elytra distinctly and very closely punctate, except on the basal prominence; this is almost impunctate and bears only a single tubercle. The first abdominal segment has a rounded piligerous pit in the middle, and the last segment a concave depression along the middle.

Length 8\( \frac{1}{2} \); breadth 4 mm.


This species resembles D. distincta Gahan in the puncturation of the elytra. In the single specimen taken the elytra, except at the base, are of a reddish-purple tint, but I believe that this colour is a sign of immaturity, and that the normal colour will prove to be the same as in D. distincta, viz. metallic blue. From D. distincta Gahan and D. amona Weise (the latter appears to me to be only a slight colour-variety of the former) it differs in the black colour of the prothorax and scutellum, in the form of the basal elevation on the pronotum, the larger size of the scutellum, and in having only a single tubercle at the base of each elytron. In D. distincta there is, in addition to the anterior tubercle at the summit of the basal prominence, another small tubercle placed almost on the suture just behind the scutellum.

Diacantha nigronotata, sp. n. (Plate VII. figs. 3 & 4, var.)

Head, prothorax, and elytra reddish-yellow, the latter with one or two small round black spots on each before the middle, and having also the apical margin, together with the sutural and lateral margins in their posterior half, black; antennae black, with the first two or three joints fulvous; body beneath and legs black; abdomen yellowish at the margins and over the whole of the dorsal side. Antennae rather
slender, extending to the middle of the elytra in the female and to the posterior third in the male; elytra minutely and sparsely punctulate, glossy.

♂. Pronotum with a reniform depression near the base, in the sinus of which, facing the scutellum, is a small triangular tubercle or elevation. Scutellum triangular, glossy, not overlapped by any process of the pronotum, somewhat similar in size and shape to that of the female, but of a yellowish colour. Elytra elevated near the base on each side of the scutellum, each having three small anteriorly projecting tubercles or prominences. First abdominal segment with a round piligerous pit, the last segment with a slightly concave median lobe.

♀. Pronotum and elytra normal; scutellum black.

Length 8–9; breadth 3½ mm.

Hab. Ruwenzori, 7000–8000 ft. (G. F. Scott Elliot); Mubuku Valley, E. Ruwenzori, 6000–7000 ft.

Var.—Elytra with the apical half (excepting a large rounded preapical spot on each) black, the black area being extended forwards a little more at the suture and sides than it is in the middle.


AULACOPHORA FISSICOLLIS THOMAS, var.

Ruwenzori (G. F. Scott Elliot).

HYPERACANTHA MIMULA Weise (Diacantha), Deuts. ent. Zeit. 1903, p. 53.

Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.

This species was based upon examples from Kamerun in West Africa. The specimens from Ruwenzori agree in size and coloration with the described form and its variety, except that the antennae are in the majority of the specimens yellowish-white with the last joint only dark brown, and the legs are sometimes wholly or in part black. The last ventral segment is regularly rounded at the apex in the female, thus differing slightly from the outline figured for the type by Herr Weise (l. c. pl. 1. fig. 39).

BONESIA MONTANA, sp. n.

Testaceous-yellow; the elytra exhibiting the following variations in colour:—

1. basal half black, the rest testaceous-yellow; 2. basal half black, but enclosing on each elytron a rather large rounded yellow spot, the apical half testaceous-yellow; 3. differing from second by the addition of a dark pitchy-brown patch near the apex and a dark band along the side uniting this patch with the black basal area; body beneath testaceous, the sides of the breast, and sometimes also of the anterior
abdominal segments, black; legs sometimes testaceous, sometimes almost entirely pitchy. Prothorax sparsely and feebly punctate. Elytra distinctly but rather finely and not very densely punctured.

Length 9–10 mm.

*Hab.* Ruwenzori, 5600–8000 ft. (*G. F. Scott Elliot*).

In size and form this species comes very near *B. murrayi* Baly (*Aethonea*), a common West African species; it differs, however, in having the elytra less strongly and less closely punctured, while the coloration of the elytra, though variable, is not quite like that of any of the described varieties of *B. murrayi*. *Aethonea* Baly is not generically distinct from *Bonesia* Baly, the difference mentioned by Baly as separating the two genera being one of a sexual character. *B. clarki* Baly, the type of *Bonesia*, was founded upon female specimens, whereas *A. murrayi* Baly, the type of *Aethonea*, was based upon male examples only. These two species are very closely allied, and the only structural differences between them that I can find are that in *B. clarki* the antennæ of the female are somewhat more thickened towards the apex, the elytra less strongly punctured, and the acetabula of the front coxae more distinctly open behind. In the male type of *B. murrayi* Baly the antennæ are scarcely longer than half the body, and are therefore not "nearly as long as the body," as stated by Baly; *Aethonea variabilis* Jacoby is certainly identical with this species, which is itself in all probability identical with *B. quinquepunctata* Klug (*Galleruca*).


Black; elytra yellowish-white; prothorax pale yellow, marked above with black spots or sometimes entirely black. Head impunctate, the front marked with a median sulcus; epistome yellow, submembranous, very short; labrum transverse, subsinuately emarginate in front; last two joints together of the maxillary pulpi ovate in form. Antennæ extending about to the middle of the elytra; first three joints nitid, the third about half as long again as the second; fourth to tenth somewhat dilated, pubescent, and dull. Prothorax about twice as broad as long, very glossy above, convex in the middle, and there almost impunctate, marked near each side with a somewhat curved longitudinal impression, between which and the slightly reflexed lateral edge there is a slight elevation. Scutellum in the form of a triangle with curved sides and obtuse apex. Elytra strongly and somewhat closely punctured. Body beneath and legs nitid, very sparsely pubescent. First joint of hind tarsi as long as the next two joints united.

Length 8–9; breadth 4–4·2 mm.

*Hab.* Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.

The three specimens of this species that I have for examination differ from each other in the colour of the prothorax. In one the prothorax is yellowish-white, with
the prosternum and five spots above black; four of the spots lie in a transverse row, two large ones on the disc and a small one near each side; the fifth is a small spot placed on the middle line near the base. In the second specimen the prothorax is wholly black beneath, while above the lateral spots are enlarged and have coalesced with the discal spots, the medio-basal black spot remaining small and distinct. In the third specimen the prothorax is entirely black.

Aulamorphus variabilis, sp. n.  (Plate VII. fig. 5.)

Head, prothorax, and elytra yellow, spotted or banded with bluish-black; body beneath (head and prothorax excepted) and legs black; antennæ blackish-brown. Head with a transverse impression on the vertex between the eyes, and marked also with a median longitudinal groove; occiput marked with three small black spots, the median one of which sometimes extends forwards to join one or two transverse black spots in the depression between the eyes. Prothorax somewhat sparsely and not very strongly punctured, having a feeble and nearly obsolete transverse groove or depression on each side of the disc, and marked with three black spots, two anterior and oblique or subtriangular, the third a small round spot placed just behind the middle of the disc. Scutellum black. Elytra rather feebly and not thickly punctured, somewhat variable in their markings; these may consist of: (1) two black spots at the base of each elytron—one spot rounded or subquadrate on the disc, the other lateral and longitudinal, extending back from just behind the shoulder; (2) two black spots at the base, as in the preceding form, and a third, rounded spot placed near the side about halfway between the middle and the apex; or (3) a transverse black band crossing the whole width of the elytra at the base, and extending for almost a third of their length from the base along the disc, and a somewhat longer distance at the sides.

Length 6–6½; breadth 3 mm.

Hab. Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.

From A. hollisi Jac., the type of the genus, the present species differs not only in its markings, but also in being much less closely and strongly punctured on the prothorax and elytra, in having only a feeble groove or depression on each side of the pronotum, the antennæ scarcely thickened towards the apex and their third very little longer than their second joints.

The characters of the genus Aulacopus, as given by Jacoby, are in one respect erroneous. The front coxal cavities are open behind, not closed as stated by Jacoby.

Hemiphracta Jacobyi, sp. n.

♀. Head, antennæ, pronotum, scutellum, and legs (the basal half of the femora excepted) black; pronotum margined at base and apex with testaceous; elytra brownish-testaceous; body beneath and base of femora reddish-testaceous. Head,
C. J. GAHAN—COLEOPTERA.

pronotum, and scutellum very densely finely punctate, clothed with greyish pubescence. Antennae extending a little past the shoulders. Pronotum marked with a median groove along the middle, and a transverse depression towards each side; subangulate at the middle of each side, sides thence converging towards base and apex. Elytra strongly, very closely punctate. Last ventral segment has a narrow median longitudinal depression on apical third or fourth. Tibia rather feebly carinate along outer face, but not sulcate each side of carina.

Length 12½; breadth 5 mm.

Hab. Ruwenzori, 5300 ft. (G. F. Scott Elliot).

This species has a very close resemblance to Hemiphracta lurida Allard, but is larger; the antennae of the female are relatively longer, extending as they do some distance past the base of the prothorax; the pronotum is marked with a distinct median longitudinal impression reaching from base to apex; the last ventral segment has a narrow median impression along the apical third or fourth part; the prothorax has a distinct lateral margin along nearly the whole length of each side.

Monolepta (Candezea) pallida, sp. n.

Pale yellow; antennae, labrum, palpi, scutellum, body beneath (prothorax excepted), and legs black. Antennae nearly as long as the body, third joint almost twice as long as the second, fourth about equal in length to second and third united. Prothorax feebly and somewhat sparsely punctate. Elytra as feebly but a little more thickly punctured; each in the male impressed anteriorly near the suture with a faint longitudinal and slightly oblique groove. Last ventral segment of male with an incision on each side; the median lobe which is thus formed is depressed in the middle. First joint of hind tarsus nearly twice as long as the second and third united.

Length 5–5½ mm.

Hab. Ruwenzori, 6000–8000 ft. (G. F. Scott Elliot).

Monolepta (Candezea) vicina, sp. n.

Very like the preceding species, but distinguishable from it by the following characters:—Head and prothorax of a fulvous-red, instead of pale yellow colour; first joint of antennae fulvous-red; prothorax more distinctly and much more thickly punctulate.

Length 5–5½ mm.

Hab. Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.

Female examples only of this species were obtained.

Monolepta apicalis Sahlb. Species Insect. p. 65, pl. 4. fig. 1 (1823).

Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.
Ruwenzori, 5300 ft. (G. F. Scott Elliot). Taken also by Mr. Scott Elliot on the road from Salt Lake to Wawamba Co.

Platyxantha sp.
A species very similar to the preceding one, but of nearly twice its size.

Platyxantha usambarica Weise (Mimastroides), Archiv für Naturg. 1902, p. 158.
Mubuku Valley, E. Ruwenzori, 5000–13,000 ft.
This species, represented by three examples (2 ♂ and 1 ♀), is provisionally placed in the genus Platyxantha with the object of indicating the group to which I believe it belongs. The acetabula of the front coxae are completely closed behind by the extension inwards of the epimera to meet the feebly dilated end of the prosternum, the tibiae are all unarmed, and the epipleures of the elytra are distinct and rather broad near the base, but become gradually narrower posteriorly, and disappear entirely at the beginning of the apical border; the pronotum is without a transverse groove or depression, the species in this respect differing from the more typical forms of Platyxantha. In the male the antennae are slightly longer and thicker than in the female, and are rather densely covered with short erect pubescence; the last ventral segment in the same sex is feebly emarginate at the apex.

Two other species nearly allied to this one, and represented each by a single example, were also obtained in the Mubuku Valley, East Ruwenzori, alt. 6000–7000 ft.

Subfam. Cassidin.e.

Ruwenzori, 7000–8000 ft. (G. F. Scott Elliot); West Africa and Natal.

Ruwenzori, 7000–8000 ft. (G. F. Scott Elliot); Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.; Uganda, Mashonaland, Angola, and Caffraria.

Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.; Ruwenzori, 5300 ft. (G. F. Scott Elliot).

The single specimen taken by Mr. Scott Elliot differs from the others in having the prothorax entirely testaceous above and at the sides beneath, but I cannot find that it differs in any other respect.

Family BRENTHIDÆ.

Allagogus, gen. n. (Taphroderinae).

Head scarcely broader than the anterior part of the prothorax, short and paralleled behind the eyes, truncate behind and furnished with a bulbiform neck; rostrum as long as, or longer than, the head, narrowed at the insertion of the antennæ, and again widened towards the apex, which is broadly rounded. Antennæ somewhat short, 11-jointed, the last three joints longer than the others. Prothorax ovate, convex, anteriorly narrowed and laterally compressed, furnished at the base with a median, backwardly projecting, subconical process which fits into a deep depression at the base of the elytra. Elytra slightly narrower and not much longer than the prothorax, narrowly costate, strongly convex, declivous behind, rounded at the apex. Front femora laterally compressed, subovate; middle ones subclavate; hind femora pedunculate and abruptly clavate, extending past the apex of the elytra by the whole length of the club, the latter strongly thickened or subtuberculate on the inner side; hind tibiae somewhat dilated; first joint of hind tarsus as long as the second and third united.

This genus ought, I think, to be placed near Cyphagogus Parry, to which it has much resemblance, especially in the form of the legs, although the hind tarsi are narrower and longer, with the first joint as long at least as the next two united. The head is shorter than in Cyphagogus, and not narrowed behind the eyes, until the constriction is reached, where the bulbiform neck begins. The basal process of the prothorax distinguishes the genus from all other Brenthidæ known to me.

Allagogus Brunneus, sp. n. (Plate VII. fig. 12.)

Reddish-brown. Head sparsely furnished with some short hairs above and longer ones beneath, impressed above with a nearly obsolete median groove. Antennæ with the joints from the third flattened; third subtriangular, longer than broad; fourth to eighth transverse, nearly twice as broad as long; ninth very slightly transverse; tenth longer than broad; these two joints are flattened above, but are thickened near the apex beneath, and appear somewhat deformed when seen from the side; eleventh joint narrower than tenth, obtusely pointed at the apex. Prothorax nitid, marked with a rather fine groove along the middle, and with a transverse groove or depression, followed behind by a small transverse ridge or elevation, near the front margin; it is furnished on each side with some sparse, erect, squamiform setæ. The elytra have each
about 8 longitudinal costae, the canaliculate intervals between which are somewhat indistinctly punctate.

Length 8; breadth $1\frac{1}{2}$ mm.

*Hab.* Mokia, S.E. Ruwenzori, 3400 ft.

*Geoccephalus picipes* Oliv. Entom. v. no. 84, p. 442, pl. 2. fig. 18.

Family *Scolytidae*.

*Crossotarsus* sp.

Mokia, S.E. Ruwenzori, 3400 ft.
**Part IV.**

*By Guy A. K. Marshall, F.Z.S.*

**Family CURCULIONIDAE.**

**PLATYOMICUS sp.**

Ruwenzori, 6000–8000 ft.

Three specimens were found by Mr. Scott Elliot.

**BLOSYRUS haroldi** Hartmann, Deutsche ent. Zeits. 1904, p. 369.

Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.

The species was described from Usambara.

**BLOSYRUS seminitidus**, sp. n.  *(Plate VII. fig. 13.)*


Long. 7–7⅓, lat. 4½–4⅙ mm.

*Hab.* Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.

**AMPHITMEUS LEGGII**, sp. n.  *(Plate VII. fig. 15.)*

Niger aut rufo-brunneus, squamulis ochraceis valde sparsis ad apicem confertioribus indutus, in angulo externo metasterni macula parva cupreo-micante. *Caput* rugoso-punctatum, inter oculos foveatum, oculis prominentibus. *Rostrum* paulo longius quam latius, a basi ad medium gradatim attenuatum, ad apicem vero dilatatuum, supra planum rugoso-punctatum leviter carinatum. *Antennae* scapo marginem prothoracis superante, punctato et longe setoso, funiculi articulo
ZOLOGICAL RESULTS OF THE RUWENZORI EXPEDITION.

1st quam 2nd longiore, 3rd-6th aequalibus, 7th paulo longiore. *Prothorax* perpaulum latior quam longior, lateribus leviter rotundatus, in medio latior, margine basali truncato quam apice paulo latiore, supra leviter convexus, confertim granulatus. *Elytra* ad basin conjunctim sinuata, ab angulo externo ad humerum oblique et longe ampliata, ab humero obtuse rotundato usque ad apicem fortiter attenuata, supra subdeplanata, ad suturam paulo convexa, ad latera abrupte inflexa, leviter 10-striata, striis regulariter granulatis, granulis in striis et in interstitiis aequalibus, interstitiis latis planis undique irregulatier granulatis, setis minutis depressis. *Pedes* ferruginei aut rufo-brunnei, longe setosi et scabrosi, tibiis interne spinis 4-6 armatis.

Long. 9–9½, lat. 4½–5 mm.

*Hab.* Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.

Described from two examples, apparently ♀ and ♂, but without external differences except the slightly greater width of the ♀.

**Amphidetus planicollis**, sp. n. (Plate VII. fig. 17.)

Niger, omnino nudus, margine posteriori metasterni ante coxas posticas squamis elongatis albis fimbriatis.

*A. leggei* simillimus, differt rostro non carinato, basi parallelo; prothorace non latiore quam longiore, a basi ad medium parallelo, dein ad apicem gradatim curvato angustato, in disco late sed parum profunde impresso; elytris granulatis in striis majoribus, illis in interstitiis confertioribus; metasterno inter coxas medias obtuse tuberculato.

Long. 10, lat. 5½ mm.

*Hab.* Mubuku Valley, E. Ruwenzori.

Described from a single specimen, which in all its other characters agrees with *A. leggei*.

I am not acquainted with *A. transversus*, Kolbe, the type species, and the only one as yet described. But the species here defined agree entirely with the generic characters given by Kolbe, except as regards the mesosternal tubercle. In *A. transversus* this is stated to be prominent and acute; in *A. leggei* it is absent; while in *A. planicolli* it is in an intermediate condition, being small and blunt *n*. Apart from

*A. foveipennis*, sp. nov.—Rufo-brunneus, omnino nudus, macula parva cupreo-virescente in angulo postico externo metasterni. Caput, rostrum, antennae, prothorax omnino ut in *A. planicolli*. Elytra ad humeros minus dilatata, postice magis gradatim attenuata, supra convexior, striis foveis profunde obsitis, interstitiis quam striis non latioribus, indistincte granulatis et rugosis, setis minutis sparsis, apicem versus paulo longioribus. Pedes flavo-testacei, femoribus et tibiis ad apicem ipsum tarsiisque totis nigris. Long. ♀ 9–9½, ♂ 9½–10; lat. ♂ 4½–4¾, ♀ 5–5½ mm.—British East Africa: Lagari (C. S. Betton). Types ♀ ♀ in the British Museum. (Plate VII. fig. 16.)
its green and yellow scaling, Dr. Kolbe’s species (Stuhlmann’s ‘Ost-Afrika,’ Zool. iv. p. 270, pl. iii. f. 34) may be distinguished from all those here described by the continuous furrow on the rostrum and forehead, and by the deep sulci on the elytra, which dorsally contain neither punctures nor granules, but are punctate laterally.

APOTMETUS, gen. n.

Rostrum antice gradatim dilatatum, a capite sutura angulata profunda separatum, area dorsali subparallelè ; scrobès insuper visibles, deorsum effusi. Antenæ scapo marginem anticum prothoracis evidenter superante, funiculi articulo 2° quam 1° perpaululum longiore, 3° longiore quam 4°, 4°-6° æqualibus, 7° vix longiore. Prothorax antice posticeque truncatus. Elytra ovata, postice rotundata, striis 10 vix perspicendiis. Pedes longi, femoribus posticis abdominis apicem fere attingentibus, tibiis scabrosis interne spinis 2-3 armatis, tarsis latis, articulo secundo valde transverso. Abdomen articulo primo postice sinuato, secundo vix breviore quam 3+4. Episternum metasternale angustum, sutura postice evanescente. Mesosternum inter coxas obtuse tuberculatum.

This genus is nearly allied to Amphitmetus Kolbe (Arch. f. Naturg. 1898, p. 251) and Paraplesius Hartmann (Deut. ent. Zeit. 1904, p. 376), on account of the reduction of the episternal suture of the metasternum, the subparallel dorsal area of the rostrum, and the 10 striae on the elytra. Amphitmetus differs in having the first joint of the funicle longer than the second, the dilatation at the apex of the rostrum is abrupt and not gradual, the rostrum is not separated from the head by a deep suture, and the second joint of the posterior tarsi is not transverse.

Paraplesius, which I know by description only, differs in having longer antennæ, so that the scape reaches the middle of the prothorax, the rostrum is not separated from the head by a furrow, joints 3-7 of the funicle are all equal, and the scrobe reaches the middle of the eye.

APOTMETUS MONTANUS, sp. n. (Plate VII, fig. 18.)

Niger, opacus nudus, mesosterno et lateribus metasterni plus minus albo-squamosis. Caput transversum, planum, striolato-punctatum, fronte foveola elongata insculpta; oculi fere circulares modice prominuli. Rostrum capite paulo longius, gradatim ad apicem dilatatum, supra planum striolato-punctatum, linea media levii. Antenæ nigres, albo-setosæ, scapo rugoso-punctato. Prothorax paulo latior quam longior, a basi ultra medium parallellus, dein ad apicem curvato-angustatus, supra late sed leviter impressus, sulco medio minime profundo instructus, coriaceus cum granulis sparsis valde depressis. Elytra ovata, ad basin conjunctim sinuata, humeriæ vix ulii oblique rotundatiis, paulo pone basin latiora, dein postice attenuata, ad apicem...
conjunctim rotundata, supra minime convexa, vix striata, punctis distantibus minime profundis in seriebus decem in singulo dispositis, interstitiis latis planis granulis parvis irregulariter obsitis, setis minutis albis sparsis. Pedes rufobrunnei albo-setosi, tarsis et tibiarum femorumque apicibus nigris.

Long. 7.4, lat. 4 mm.

Hab. Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.

Described from a single ♂ specimen. The abdomen is covered with fairly large and close granules, those on the metasternum being much smaller and more scattered.

Systates sp.

Mubuku Valley, E. Ruwenzori, 6000–13,000 ft. A single specimen.

Systates sp.

Another unique specimen from the same locality.

Lixus bidentatus Kolbe, Ent. Nachr. xxiv. 1898, p. 150.

Mubuku Valley, E. Ruwenzori, 6000–13,000 ft.


Mubuku Valley, E. Ruwenzori. A single example.


Lixus runzoriensis, sp. n.

Niger, elytris vitta laterali albo-pubescente in interstitiis 6–8 et in laterem thoracis continuata ornatis (exempla detrita).

Caput tenuissime punctatum, in fronte fovea profunda instructum, pone oculos et in gula fortiter transversim plicatum; oculi angusti elongati, margine postice breviter ciliato. Rostrum quam prothorax vix brevis, cylindricum, leviter curvatum, subtilder punctulatum, in parte basali tenuissime striolatum, apicem versus nitidum, inter antenas breviter striatum. Prothorax conicus, vix longior quam ad basin latior, lateribus rectis, ad apicem non constrictis, supra coriaceus, plus minus oblique plicatus, latera versus nitidior et leviter impressus, in medio basi sulco abbreviato instructus, margine apicali post oculos vix lobata. Elytra in ♂ cylindrica, in ♀ latora et pone medium perpaulum ampliata, ad apicem conjunctim rotundata, circa scutellum leviter impressa ibique interstitiis non calloso-elevatis, fortiter striato-punctata, punctis postice non obsoleteis, interstitiis latis subplanis tenuissime punctatis, stria externa in tertia parte basali late et
profunde sulcata. *Pedes* elongati tenues, femoribus inermibus, anticis pone sinum apicalem subangulatis.

Long. ♀ 13, ♂ 15½-16; lat. ♀ 3¼, ♂ 5¼-5½ mm.

Hab. Mubuku Valley, E. Ruwenzori, 6000-13,000 ft.

Described from 1 ♂ and 3 ♀ specimens.


This species is found from Senegambia to Madagascar.

**Lixus sp.**

Mubuku Valley, E. Ruwenzori, 6000-13,000 ft. Unique.

**Lixus sp.**

A single specimen was found by Mr. Scott Elliot on Ruwenzori between 6000 and 8000 ft. altitude.

**Lixus sp.**

Ruwenzori, 7000-8000 ft. Another single specimen also found by Mr. Scott Elliot.

**Alcides dentipes** Fabr. Ent. Syst. i. 2, p. 428.

A single example was found on Ruwenzori by Mr. Scott Elliot. The species is found also in West Africa and the Transvaal.


Three specimens were collected on Ruwenzori by Mr. Scott Elliot at 7000-8000 ft.

**Alcides spp.**

Seven species are represented by single specimens, all collected in the Mubuku Valley, E. Ruwenzori, between 6000 and 13,000 ft., and all in bad condition.

**Ithyphorus sp.**

Mubuku Valley, E. Ruwenzori. Unique

**Cryptorrhynchus sp.**

Mubuku Valley, E. Ruwenzori, 6000-7000 ft. Unique.

**Disodontogenus**, gen. n. (Calandrine).

Rostrum longum deflexum valde curvatum, ad basin paulo incrassatum, in ♂ brevius et minus curvatum, scrobibus subinferioribus foveiformibus juxta basin...
positis, mento parvo, submenti pedunculo elongato, in ♂ ad apicem simpliciter
sinuato, sed in ♀ dentibus duobus prominentibus armato. Antennae scapó quam
funiculo vix longiore, funiculi articulo 1° quam 2° crassiore et paululum breviore,
3°-6° subaequalibus fortiter transversis, clava subovata, parte apicali spongiosa
magna. Oculi nec supra nec infra approximati. Prothorax elytris non angustior,
ad basin simpliciter rotundatus, prope apicem fortissime strangulatus, margine
gulari truncato et fimbriato. Scutellum parvum, triangulare. Elytra ad basin
conjunctim sinuata, ab humeris gradatim angustata, longitudinaliter convexa,
margine laterali vix sinuato, regulariter 9-striata. Mesosternum epimero non
ascendente sed supra oblique truncato, episterni margine interno bene definito.
Metasternum quam coxis mediis paulo tantum longius, episterno comparate
angusto. Pygidium detectum. Pedes elongati, coxis anterioribus separatis,
femoribus leviter clavatis, tibiis compressis, interne subsinuatis et apice mucron-
natis.

Type, *D. wollastoni*, sp. n.

A somewhat isolated genus which, in Lacordaire’s arrangement, would come next to
*Sphenophorus* Schönh.

**Disodontogenus wollastoni**, sp. n. (Plate VII. fig. 19.)

Niger, indumento brunneo vestitus, setulis minutissimis remote obsitus.

*Caput* nudum, vix punctatum, fronte tantum brunneo-squamosa, gula fovea longi-
tudinali impressa. *Rostrum* subparallelum, supra basin versus leviter bisulcatum,
in ♂ undique indumento vestitum et supra ruguloso-punctatum, in ♀ ad basin
tantum squamosum, alibi nudum nitidum vix punctatum. *Antenna nigra*,
brunneo-squamosae, clava in parte basali nuda nitida. *Prothorax* paulum longior
quam latior, lateribus leviter rotundatis, maxime latitudine post medium, prope
apicem profundissime constrictus, margine apicali leviter sinuato, supra inequalis,
in medio disci subpulvinatus et in utroque latere impressus, undique ruguloso-
punctatus. *Elytra* sine tuberculo humerali, ab angulo basali gradatim angustata,
 nec thorace latiora, tenuiter striata, striis vix punctatis, interstíitis latis planis,
supra inequalis, irregulariter impressa et subnodosa. *Pedes* dense brunneo-
squamosi, setis brevibus sparse obsiti.

Long. 12—12½, lat. 4½—4¾ mm.

*Ilab.* Mubuku Valley, E. Ruwenzori, 6000—13,000 ft.

Described from 1 ♂ and 2 ♀ specimens.
PLATE VI.

Fig. 1. Lycus vittatus Gahan, ♂
3. " " " " ♂ " ♀ p. 203.
4. " (Lycostomus) runsoriensis Gahan, ♂ ♀ p. 203.
5. Alaus trifasciatus Gahan, p. 205.
6. Melyris monticola Gahan, p. 204.
9. " " " " ♂ " ♀ p. 208.
11. Ceroplesis reticulata Gahan, p. 211.
16. Entobbia bipunctata Gahan, ♂ ♀ p. 211.
COLEOPTERA FROM MT RUWENZORI.
PLATE VII.

Fig. 1. *Macrolopha quadrimaculata* Gahan, p. 216.
3. *Diacantha nigronotata* Gahan
5. *Aulamorphus variabilis* Gahan, p. 222.
COLEOPTERA FROM MÆ RUWENZORI.
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*Continued on page 3 of Wrapper.*
RUWENZORI EXPEDITION REPORTS.

15. PISCES, BATRACHIA, and REPTILIA.

By G. A. BouleNGE, F.R.S., V.P.Z.S.

Received October 24, read November 17, 1908.

[PLATES VIII. & IX.*]

PISCES.

Only one species of Fish, the widely distributed Tilapia nilotica, L., was known from Ruwenzori, where specimens were found, between 5000 and 6000 feet, by Mr. G. F. Scott Elliot. The same fish was obtained to the S.E., at 3200 feet altitude, by Mr. R. B. Woosnam, the leader of the present Expedition. Examples of two species were obtained near Fort Portal, alt. 4600 feet, 'viz Clarias carsonii Blgr. and Barbus fortali Blgr., the latter being a new species which I have described and figured in the 'Fishes of the Nile.' From Irumu, in the Congo Forest, alt. 3000 feet, we have examples of five species: Alestes macrophthalmus Gthr., A. grandiisquamis Blgr., A. imberi Peters, Barbus holotenia Blgr., and Barilius ubangensis Pellegr. A small collection made in the Aruwimi River contains representatives of ten species: Pellonula obtusirostris Blgr., Bryconothiops microstoma Gthr., Petersius woosnami Blgr., Micralestes acutidens Peters, Labeo parvus Blgr., Barilius ubangensis Pellegr., Chelothiops elongatus Blgr., Eutropius grenfelli Blgr., Synodontis greshoffi Schilth., and Mastacembelus congicus Blgr.

Pellonula obtusirostris and Petersius woosnami have been described and figured in the first volume of the British Museum Catalogue of African Fresh-water Fishes.

Family Clupeidae.

1. Pellonula obtusirostris Blgr.


Depth of body equal to length of head, \(4\frac{1}{4}\) to \(4\frac{1}{3}\) times in total length. Snout obtusely pointed, projecting very slightly beyond the lower jaw, not quite as long as the eye, which is three times in the length of the head and slightly exceeds the interorbital width; adipose lid feebly developed; maxillary extending to below the anterior third of the eye; no strongly enlarged teeth. Gill-rakers slender, shorter than the branchial lamellae, about 15 on lower part of anterior arch. Dorsal fin with 13 rays, originating slightly in advance of the ventrals and much nearer the end of the snout.

* For explanation of the Plates, see pp. 250, 252.

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than the base of the caudal fin. Anal fin with 17 or 18 rays, twice as distant from the base of the ventral as from the caudal, and originating a long way behind the vertical of the dorsal. Pectoral fin $\frac{3}{4}$ to $\frac{7}{8}$ the length of the head, not reaching the ventral. Caudal forked, with pointed lobes. Caudal peduncle once and a half as long as deep. 42–44 scales in a longitudinal series, 10 in a transverse series; 12 or 13 keeled scutes between the isthmus and the ventrals, 10 between the ventrals and the anal. Body yellowish, head and a broad lateral band silvery.

Total length 72 mm.
Two specimens from the Aruwimi River.

Family Characiniæ.

2. Bryconæthiops microstoma Gthr.
Aruwimi River, Upper Congo.

3. Alestes macrophthalmus Gthr.
Irumu River.

4. Alestes grandisquamis Blgr.
Irumu River.

5. Micralestes acutidens Peters.
Irumu River.

6. Petersius woosnami Blgr.

Depth of body equal to length of head, four times in total length. Head longer than deep, with convex upper profile; lower jaw projecting slightly beyond the upper; eye as long as the snout, three times in the length of the head; maxillary not extending to below the anterior border of the eye; 14 teeth ($\frac{4}{5}$) in the upper jaw, 8 in the lower; outer premaxillary teeth tricuspid, inner multicuspif and inserted immediately behind the outer. Gill-rakers short, 12 on lower part of anterior arch. Dorsal fin with III 8 rays, originating above the base of the ventrals and at equal distance from the end of the snout and from the root of the caudal fin; longest ray about $\frac{4}{5}$ the length of the head. Adipose fin very small. Anal fin with III 17–18 rays. Pectoral fin shorter than the head, not reaching the ventral. Caudal peduncle as long as deep. Scales 29–30 $\frac{43}{54}$, 2 between lateral line and ventral. No markings, except a silvery lateral band, which is black-edged above.

Total length 70 mm.
Two specimens from the Aruwimi River, Upper Congo.
Irumu River.

8. *Barbus poetali* Blgr.


Depth of body equal to the length of the head, three and two-thirds to four times in the total length. Snout rounded, longer than the eye, which is four to four and a half times in the length of the head and about once and a half in the interorbital width; latter three times in the length of the head; lips moderately developed, interrupted on the chin; barbels two on each side, the anterior once and a half to once and three-fourths, the posterior twice to twice and a half the diameter of the eye, the distance between them about two-thirds the diameter of the eye. Dorsal fin with III 7 rays, last simple ray strong, bony, coarsely serrated behind, much shorter than the head; free edge of the fin not emarginate; its distance from the occiput less than its distance from the caudal fin. Anal fin with III 5 rays, the longest one-half to three-fifths the length of the head. Pectoral fin two-thirds to three-fourths the length of the head, not reaching the ventral; latter below anterior rays of dorsal. Caudal fin deeply forked. Caudal peduncle once and a half to once and two-thirds as long as deep. Scales with fan-shaped striation, 29–31 \( \frac{33}{3} \), 3 between lateral line and ventral, 12 round caudal peduncle. Yellowish, back olive-brown; a dark greyish lateral stripe with or without two or three blackish blotches in its course; fins whitish.

Total length 100 mm.

Described from five specimens obtained near Fort Portal, 12 miles east of Ruwenzori, at an altitude of 4500 feet, in a small stream, a tributary of the Mpanga, flowing into Lake George.

Mr. Woosnam observes that this was a common fish in the eastern streams of Ruwenzori, which it probably ascends from Lake George. It was not met with above 5500 feet.

Irumu River.

Irumu River.

11. *Chelethiois elongatus* Blgr.
Irumu River.
Family \textit{Siluridae}.


[These little fishes were numerous in the streams flowing from the eastern side of Ruwenzori into Lake George. They appeared to frequent only the lower and more sluggish parts of the streams, and were never seen above 5500 feet.—\textit{R. B. W.}]


Irumu River.


Irumu River.

Family \textit{Cichlidae}.

15. \textit{Tilapia nilotica} L.

Ruwenzori, up to 3200 feet altitude.

Family \textit{Mastacembelidae}.

16. \textit{Mastacembelus congicus} Blgr.

Irumu River.

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\textbf{BATRACHIA.}

Examples of two species of Frogs, \textit{Rana oxyrhynchus} A. Smith and \textit{R. nutti} Blgr., were obtained by Mr. R. B. Woosnam on Ruwenzori.

1. \textit{Rana oxyrhynchus} A. Smith.

Mokia, S.E. Ruwenzori, 3400 ft.

2. \textit{Rana nutti} Blgr. (Plate VIII. figs. 1 & 2.)

Mubuku Valley, E. Ruwenzori, 5000–9000 ft.

This is a little-known species. It was described by me (Ann. \& Mag. N. H. (6) xviii. 1896, p. 467) from specimens obtained in Lake Tanganyika by Mr. W. Nutt, and the British Museum has since received specimens from various parts of British East Africa. Specimens from Kilimanjaro have been referred by Tornier (Kriechth. Deutsch-Ost-Afr. p. 92, 1897) to \textit{R. bravana} Peters, which species I regard as identical with \textit{R. galamensis} D. \& B.
The following description is taken from the Ruwenzori specimens:

Vomerine teeth in two strong, slightly oblique series between the choanae. Head as long as broad, or a little longer than broad; snout rounded, scarcely projecting, slightly longer than the diameter of the orbit; canthus rostral is obtuse; loreal region very oblique and slightly concave; nostril equally distant from the eye and from the tip of the snout, or a little nearer the former; interorbital space a little narrower than the upper eyelid; tympanum very distinct, two-thirds to three-fourths the diameter of the eye. Fingers obtusely pointed, first and second equal; toes slender, obtusely pointed, two-thirds webbed; subarticular tubercles small; a small elliptical inner metatarsal tubercle, measuring one-third the length of the inner toe. Tibia as long as or a little longer than the fore limb, as long as the foot; tibio-tarsal articulation reaching the tip of the snout or beyond. Skin smooth; a narrow but very prominent glandular dorso-lateral fold from the upper eyelid to the sacral region. Greyish or olive-brown above, with more or less distinct darker spots; a broad, light, dark-edged vertebral band sometimes present; a dark streak from the end of the snout, through the nostril, to the eye; a dark temporal spot; a light streak from below the eye to the angle of the mouth; limbs with dark cross-bands; lower parts white, throat with brownish marblings.

The largest specimen measures 64 mm. from snout to vent.

Rana nutti is very nearly related to R. angolensis Bocage.

Two female specimens, showing variations in the markings, are figured on Plate VIII. figs. 1 & 2.

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REPTILIA.

The species of Lizards obtained on Ruwenzori by Mr. Woosnam are Agama atricornis, A. Smith, Lacerta jacksonii Blgr., Mabuija maculilabris Hallow., Mabuija striata Peters, and the undescribed Lygosoma for which I proposed the name L. meleagris. This is here redescribed and figured, and I have appended notes on the specimen of the little-known Lacerta jacksoni.

Chameleons are represented by Chamaeleon senegalensis Daud. (levigatus Gray) and C. ellioti Gthr., obtained at the foot of the mountain (5000–6000 feet) by Mr. G. F. Scott Elliot; C. johnstoni Blgr., and C. xenorhinus Blgr., two remarkable forms discovered by Sir H. H. Johnston, and of which further examples were collected during the Expedition; and a small species, C. rudis Blgr., of which a female had been previously obtained by Sir H. H. Johnston, but which could not be properly understood until the male was discovered by Mr. Woosnam and his party.

Of Snakes, Leptodira hotambeia Laur. and Elophechis guentheri Bocage were brought home from the foot of Ruwenzori by Mr. G. F. Scott Elliot; Chlorophis emini Gthr.
ZOOLOGICAL RESULTS OF THE RUWENZORI EXPEDITION.

and Naia nigricollis Reinh. by the Ruwenzori Expedition, to which we also owe the discovery of a new Tree-Viper, described below as Atheris woosnami.

Family Agamidae.

1. Agama atricollis A. Smith.

[Common on the plains around Ruwenzori, but not found on the mountains above 5000 feet.—R. B. W.]

Family Lacertidae.

2. Lacerta jacksoni Blgr.


This species was described from a single male specimen procured at Ravine Station, Mau Mountains, on the main route from Mombasa to Lake Victoria, at an altitude of 7500 feet. It was presented to the British Museum by Mr. F. J. Jackson. A second specimen, a female, was obtained by the Expedition, on the east side of Ruwenzori, at a height of 8500 feet, on the trunk of a tree.

The head is smaller and shorter than in the type, and the body more elongate, these differences being sexual. The granules between the supraoculars and the supercilaries are reduced to three on the right side and to two on the left; the occipital is much shorter and a little broader than the interparietal; on the left side the parietal is in contact with the fourth supraocular and the upper postocular, on the right side with the fourth supraocular only. The dorsal scales are very faintly keeled; 37 scales across the middle of the body; 27 transverse series of ventral plates. The hind limb barely reaches the axil. Femoral pores 18–19. The belly, in the spirit-specimen, is pale blue.

Measurements:

From end of snout to vent 71 mm.; head 17; width of head 11; fore limb 25; hind limb 35.

Judging from the description, I am in doubt as to Tornier's L. vauereselli (Zool. Anz. 1902, p. 701) being specifically distinguishable from L. jacksoni. The temporal scales, perfectly smooth in the Ruwenzori specimen, are feebly keeled in the type. The statement “Nur 8 Femoralporen an jeder Seite” (p. 702) is contradicted further down (p. 703), “Femoralporen 16 an jeder Seite.”

Family Scincidae.

3. Mabia maculilabris Hallow.

Mokia, S.E. Ruwenzori, 3400 feet.
4. **Mabuia striata** Peters.

[Numerous in the Mubuku Valley, E. Ruwenzori, up to 6500 feet.—*R. B. W.*]

5. **Lygosoma meleagridis** Blgr.  (Plate VIII. figs. 3, 3 a, 3 b.)


Body much elongate; limbs small, with four very short digits; the distance between the end of the snout and the fore limb is contained twice and a half in the distance between axilla and groin. Snout very short, obtuse; lower eyelid scaly; nostril pierced between two nasals; no supranasal; fronto-nasal broader than long, broadly in contact with the rostral and with the frontal; præfrontals minute; frontal not much larger than fronto-parietals, in contact with the first and second supraoculars; four supraoculars; five supraciliaries; fronto-parietals distinct, larger than the interparietal; parietals forming a suture behind the interparietal; a pair of nuchals; fourth upper labial below the centre of the eye. Ear-opening minute, about as large as the nostril. 22 smooth scales round the middle of the body. Median præanal scarcely enlarged. The length of the hind limb equals the distance between the anterior border of the eye and the fore limb; second and third toes (normally third and fourth, the hallux being absent) equal, with 12 lamellæ inferiorly. Tail long and thick. Upper surface of head and back blackish-brown, with small round white spots; sides of body, belly, hind limbs, and base of tail uniform orange; a black streak on the temple and along the side of the neck; throat black; greater part of tail brown above and white beneath, spotted with black.

| Total length . . . . 166 mm. | Fore limb . . . . 10 mm. |
| Head . . . . . . 10 " | Hind limb . . . . 15 " |
| Width of head . . . . 7 " | Tail (reproduced) . . . . 105 " |
| Body . . . . . . 51 " |

A single specimen from the Mubuku Valley, E. Ruwenzori, altitude 7000 feet.

This species belongs to the section *Staphos* Gray, which a few years ago was represented by only a few Malayan and Australasian species. Five closely related species have now been described from Africa:


3. **L. aloysi-sabandien** Peracca (Boll. Mus. Zool. Tor. xxii. 1907, no. 553).—Digits 5—5 (pollex rudimentary and clawless), longest with 14 lamellæ below; ear-opening not much larger than nostril; 22 scales round body. Mitiana and Toro.
ZOOLOGICAL RESULTS OF THE RUWENZORI EXPEDITION.

(4) *L. meleagris* Blgr.—Digits 4—4, longest with 12 lamellæ below; ear-opening not much larger than nostril; 22 scales round body. Ruwenzori.

(5) *L. blochmanni* Tornier (t. c. p. 173).—Digits 3—3; ear-opening much larger than nostril; 22 scales round body. Lake Kivu.

Family *Chamaeleontidae*.


I cannot regard Gray's *C. levigatus* as more than a variety of this species, for reasons which will be given in a paper to be published in the 'Annals' of the Genoa Museum.

7. *Chamaeleon ellioti* Gthr. (Plate VIII. figs. 4, 4a.)

[These Chameleons were numerous on the lower slopes of Ruwenzori from 5000 to 6000 ft., especially among the rough scrubby vegetation which springs up on the sites of old cultivations. None was obtained or seen above 6000 ft.—R. B. W.]

8. *Chamaeleon rudis* Blgr. (Plate VIII. figs. 5, 5a, 6.)


Head short, the casque feebly raised posteriorly, with feeble, tubercular parietal crest; the distance between the commissure of the mouth and the extremity of the casque equals the length of the mouth; no rostral appendages; lateral crest merely indicated; no trace of occipital lobes; 10 scales across the interorbital space. Body covered with large, very convex granules of irregular size, intermixed with still larger ones, some of which are arranged in a dorso-lateral series; a dorsal crest of conical tubercles, the largest of which alternate with one or two smaller ones; a series of long, conical, spine-like tubercles forms an uninterrupted gular-ventral crest, the longest tubercles, on the throat, measuring half the diameter of the orbit. No tarsal process. Tail as long as or a little shorter than head and body, crested like the back. Male dark olive-grey, female nearly black, with some of the larger tubercles on the body yellowish.

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<tr>
<td>Total length</td>
<td>113</td>
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<tr>
<td>From end of snout to extremity of mandible</td>
<td>16</td>
<td>13</td>
</tr>
<tr>
<td>&quot; &quot; &quot; casque</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>Greatest width at temple</td>
<td>11</td>
<td>9</td>
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<td>Depth of skull, mandible included</td>
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<td>11</td>
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<tr>
<td>Body</td>
<td>41</td>
<td>40</td>
</tr>
<tr>
<td>Tibia</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>Tail</td>
<td>56</td>
<td>45</td>
</tr>
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</table>
A single specimen, a gravid female, of this small Chameleon was presented by Sir H. H. Johnston to the British Museum in 1901. I had referred it provisionally to C. bitaniatus Fisch., from which it differs in the coarser scaling and in the much longer spine-like tubercles forming the gular-ventral crest, and it was briefly alluded to by Mr. J. L. Monk ('Zoologist,' 1903, p. 324) as likely to prove a new species, a view which is confirmed by the discovery of the male by the Ruwenzori Expedition, in the Mubuku Valley, on the east side of the mountain, at an altitude of 10,000 feet.

[A specimen (no. 24, 2nd Feb., 1906) was found at 10,000 ft., just where the bamboo and tree-heath zones meet and intermingle, forming rather more open patchy country. This specimen was much smaller than the C. ellioti met with lower down and of a dirty grey-green colour. At this altitude (10,000 ft.) the vegetation was sometimes white with frost in the early morning. During the time we were encamped there the native porters (about 20 in number) were offered rewards for finding Chameleons, but they never found but this one, which was sitting on a rotten stump of tree-heath. I fully expected this alpine Chameleon to be of a different species to C. ellioti, which is met with below 6000 ft., where the climate is hot and tropical.—R. B. W.]

Those who regard C. ellioti and C. hochmili as races or local varieties of C. bitaniatus would of course place C. rudis under the same species—and I should be the last to blame them, having at one time held the same opinion.


[This Chameleon was obtained only in the Mubuku Valley, E. Ruwenzori, between 6000 and 7000 feet, and it did not appear to be very plentiful. It is found usually among the lower bushes and shrubs just below the forest-line, or in the open spaces where native clearings had been made just inside the forest.—R. B. W.]

10. Chameleon Xenorhinus Blgr.

[This Chameleon was obtained only in the Mubuku Valley, E. Ruwenzori, from 6000 to 7000 feet, and was found in much the same kind of situations as C. johnstoni, but it appeared to be more partial to the larger trees and was found upon the trunks. We noticed, too, that this Chameleon when first caught was always of a much darker colour than C. johnstoni, almost black, and never became very much lighter. It is not improbable that it lives in the large forest-trees, where its presence would be almost impossible to detect.—R. B. W.]
Family **Colubridae**.

11. **Chlorophis emini** Gthr.
Mubuku Valley, E. Ruwenzori, 5000 feet.

12. **Naja nigricollis** Reinh.
Mokia, S.E. Ruwenzori, 3400 feet.

Family **Viperidae**.

13. **Atheris woosnami** Blgr. (Plate IX.)

In shape the head resembles that of *Vipera berus*, being more elongate than in the other species of *Atheris*, truncate at the end, and provided with a sharp canthus rostralis; the eye is rather small, its diameter about half the length of the snout in the adult. The end of the snout below the canthus rostralis and between the nasal and first labial shields is covered by four smooth shields: a rostral, which is twice and a half to three times as broad as deep, and above it three shields in a row, the median of which may be regarded as detached from a rostral such as exists in a typical Viper. The scales on the snout and vertex may be smooth or more or less strongly keeled, further back they are all strongly keeled; there are 8 to 10 across the crown from eye to eye and 12 to 15 round the eye, which is separated from the upper labials by one or two series of scales; the upper labials number 10 on each side; there are 3 or 4 pairs of small chin-shields, the anterior largest and in contact with 3 or 4 lower labials; unlike those of the other *Atheris*, the gular scales are smooth or very faintly keeled. The highest number of scales across the body varies between 25 and 30; all are strongly keeled. Ventrals 151 in males, 168 to 162 in females; anal entire; subcaudals 49 to 52 in males, 44 to 47 in females *.

In coloration as well as in form and scaling this *Atheris* departs less than its congener from the typical Viper pattern, the characteristic zigzag dorsal band and the reversed initial (\(\nabla\)) on the head being present in some specimens. The ground-colour varies from olive-green to bright grass-green above, from yellowish to pale green beneath; the keels of most of the scales are black, and the upper head-scales are edged with black; there is usually a dorsal series of large black rhombs, which may be confluent into a zigzag band, and a lateral series of smaller black spots; a \(A\)- or \(A\)-shaped black marking on the top of the head, the apex between the eyes; a black streak on

* In the large series of *Atheris chlorocephis* and *A. squamiger* in the British Museum, which renders the distinction of these two supposed species an almost impossible task, the variation in the number of ventrals ranges between 145 and 160 for males, 152 and 176 for females, and that of subcaudals between 52 and 65 for males, 45 and 59 for females.
each side of the head, from above the nostril to above the last labial shield; the end of the tail is black or blackish.

The largest specimen measures 630 mm., in which the tail enters for 85.

[Several specimens of this very distinct species were obtained in the Mubuku Valley, E. Ruwenzori, between 6000 and 6500 feet altitude.

This fine Snake may sometimes be seen coiled up round the stem of elephant-grass 10 feet above the ground. One of the specimens contains embryos.—R. B. W.]
PLATE VIII.
PLATE VIII.

Figs. 1, 2. *Rana muttii* Blgr., p. 240. Females.

Fig. 3. *Lyrurus meleagris* Blgr., p. 243.

3a. " Enlarged view of upper surface of head.

3b. " " side of head.


4a. " Upper view of head.


5a. " " Upper view of head.

6. " " Female.
1, 2. RANA NUTTI. 3. LYGOSOMA MELEAGRIS
4. CHAMELEON ELLIOTTI. 5, 6. CHAMELEON RUDIS.
PLATE IX.

Atheris woosnami Blgr., p. 246.
Female, with side view of head and enlarged view of end of snout.
ATHERIS WOOSNAMI.
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(Plates X.—XIX. and Text-figs. 13–16.)

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RUWENZORI EXPEDITION REPORTS.

16. AVES.
By W. R. Ogilvie-Grant, F.Z.S. M.B.O.U., &c.

Appendix.—On some Points in the Anatomy of Bradypterus cinnamomeus.

Received and read November 17, 1908.

[Plates X.-XIX. and Text-figures 13-16.]

INTRODUCTION.

Of the collections formed by the Members of the Ruwenzori Expedition probably none is so complete as that of the Birds. This is partly due to the fact that as four of the collectors were specially interested in Ornithology, every effort was made to obtain examples of all the species to be met with on the range. It is thus pretty certain that of the different kinds of birds to be found on Ruwenzori very few are not represented in the present collection.

The only known exceptions are a small Swift, seen at about 10,000 ft.; an Owl; possibly a Pigeon, which is described as a "Black Dove," and may have been the young of Haplopterus jacksoni; and a large species of Francolin. The latter frequented the thickest parts of the forest and, though its cry might constantly be heard, its skulking habits baffled all the efforts made to procure specimens. Mr. Carruthers actually succeeded in shooting one, but the bird being only winged instantly disappeared among the dense jungle.

In addition to these there are also two species, Cryptospiza shelleyi (of which only the type-specimen is known) and Nectarinia melanogastra, which were not met with by the present Expedition, but which were procured by Mr. Geoffrey Archer on Ruwenzori, though the exact locality was not recorded. Euprionoides nigrescens, which was also said to have been procured on Ruwenzori by the same collector (cf. Jackson, 'Ibis,' 1906, p. 547), was no doubt obtained in Ankoli, as is shown by the date, April the 8th, 1902 (see Archer, Itinerary, p. 506).

It is, of course, more than likely that, in addition to those mentioned, other species may have been overlooked and that locally distributed forms may occur in valleys which were not visited by the Expedition. As an instance of this I may mention that of a very handsome Sun-bird (Nectarinia purpureiventris) only one example was procured by Mr. Gerald Legge during the four months spent in the Mubuku Valley; while

* For explanation of the Plates, see pp. 462-480.

VOL. XIX.—PART IV. No. 34.—March, 1910.
Mr. Geoffrey Archer, who remained only a few days in the same locality, procured a series of examples in all stages of plumage.

Two species peculiar to Ruwenzori, Cinnysris stuhlmanni and Parus fasciiventris, were procured by Dr. Stuhlmann in 1893, probably high up in the Butagugu Valley, on the west side of Ruwenzori.

The splendid Touraco, Gallirex johnstoni, was discovered on Ruwenzori by Sir H. H. Johnston in 1901 at an elevation of about 7000 ft.

In addition to these, as already stated in my Preface, before the present Expedition had reached Ruwenzori, 14 species peculiar to the range had been procured by Mr. Geoffrey Archer, who spent twenty days on its north-eastern slopes in 1902.

Besides the species peculiar to the Ruwenzori range, many which were obtained on the lower slopes and in the surrounding country have a much wider distribution and represent elements of various other faunas, chiefly eastern and western. I have therefore attempted by means of the following lists to divide the collection as a whole into its component parts and to give some idea of their relative importance and connections.

It is difficult to account for the occurrence of certain species on Ruwenzori: for instance, a very large and remarkable Yellow-breasted Bush-Shrike (Laniarius lagdeni) was met with at 9000 ft. and subsequently procured, in some numbers, by Herr Rudolf Grauer on the higher slopes of the Mufumbiro Volcanoes, which lie to the south. This very handsome bird had for many years been known only from the type-specimen in the British Museum, obtained by Sir Godfrey Lagden in Ashanti, and its recurrence in the highlands of Central Africa is therefore as unexpected as it is remarkable. As will be seen from the following list, many West-African species, especially those found in Cameroon, occur in the Lake-district; but in the case of L. lagdeni we have to deal with a species which was said to have been originally met with in the interior of the Gold Coast, where there are no high mountains.

As the investigation of the fauna of Ruwenzori was the main object of the present Expedition, I shall first deal with the birds which are believed to be peculiar to the range, and which, so far as I am aware, have not been found elsewhere. These species, which number 20, are as follows:—

<table>
<thead>
<tr>
<th>Species</th>
<th>Altitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sitagra aliena Sharpe.</td>
<td>5500–8500 ft.</td>
</tr>
<tr>
<td>Cryptospiza jacksoni Sharpe.</td>
<td>6000–8500 ft.</td>
</tr>
<tr>
<td>&quot; shelleyi Sharpe. (Exact locality unknown.)</td>
<td></td>
</tr>
<tr>
<td>Nectarinia dartmouthi Grant.</td>
<td>12,500–14,500 ft.</td>
</tr>
<tr>
<td>Cinnysris alina (Jackson).</td>
<td>5500–9000 ft.</td>
</tr>
<tr>
<td>&quot; stuhlmanni Reichenow.</td>
<td>10,000–11,200 ft.</td>
</tr>
<tr>
<td>Parus fasciiventris Reichenow.</td>
<td>6500–11,000 ft.</td>
</tr>
<tr>
<td>Dryoskopos holomelas Jackson.</td>
<td>6000–9000 ft.</td>
</tr>
<tr>
<td>Bradypterus barakae Sharpe.</td>
<td>6500–8500 ft.</td>
</tr>
<tr>
<td>Apalis affinis Grant.</td>
<td>6000 ft.</td>
</tr>
<tr>
<td>&quot; personata Sharpe.</td>
<td>6000–9000 ft.</td>
</tr>
<tr>
<td>&quot; ruwenzori Jackson.</td>
<td>6000–9000 ft.</td>
</tr>
<tr>
<td>Cosypha archeri Sharpe.</td>
<td>6000–13,000 ft.</td>
</tr>
<tr>
<td>Alethia polioptera Sharpe.</td>
<td>6500–9000 ft.</td>
</tr>
<tr>
<td>Batis diops Jackson.</td>
<td>6500–8500 ft.</td>
</tr>
<tr>
<td>Cryptolopha alpina Grant.</td>
<td>10,000–14,000 ft.</td>
</tr>
<tr>
<td>&quot; lata Sharpe.</td>
<td>6500–9000 ft.</td>
</tr>
<tr>
<td>Gallirex johnstoni Sharpe.</td>
<td>8500–11,000 ft.</td>
</tr>
<tr>
<td>Cypsacus maximus Grant.</td>
<td>10,000–14,000 ft.</td>
</tr>
<tr>
<td>Haploperla jacksoni Sharpe.</td>
<td>6500–9000 ft.</td>
</tr>
</tbody>
</table>
The following 6 species found on the Ruwenzori range have also been met with on the Mufumbiro Volcanoes, which lie to the south:

<table>
<thead>
<tr>
<th>Species</th>
<th>Altitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cryptospiza ocularis Sharpe.</td>
<td>6000-7000 ft.</td>
</tr>
<tr>
<td>Serinus graueri Hartert.</td>
<td>5500-14,000 ft.</td>
</tr>
<tr>
<td>Nectarinia purpureiventris Reichenow.</td>
<td>7000 ft.</td>
</tr>
<tr>
<td>Cinnyris regius Reichenow.</td>
<td>6000-10,000 ft.</td>
</tr>
<tr>
<td>Turdinus atriceps Sharpe.</td>
<td>6500-9000 ft.</td>
</tr>
<tr>
<td>Tarsiger ruwenzori Grant.</td>
<td>6500-12,000 ft.</td>
</tr>
</tbody>
</table>

The portion of the collection which was formed in the neighbourhood of Entebbe, at the north end of Victoria Nyanza, is of special interest. Entebbe may be regarded as a great central junction where elements of all the tropical Faunas meet. Most of the more widely ranging species of birds belonging to the East-African, White Nile, West-African, Angolan, and South-African Faunas are to be met with there, and probably there is no spot on the African continent where so many different species are to be found.

The following 96 species are characteristic of the great central chain of Lakes, some being confined to the neighbourhood of Victoria Nyanza, while others range northwards to the Bahr-el-Jebel, or as far south as Lake Nyasa:

<table>
<thead>
<tr>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oriolus percivali</td>
</tr>
<tr>
<td>Malimbus centralis</td>
</tr>
<tr>
<td>&quot; fagani.</td>
</tr>
<tr>
<td>Cinnamopteryx mpangee.</td>
</tr>
<tr>
<td>Sycobrotus mentalis.</td>
</tr>
<tr>
<td>Heterhyphantes stephanophorus.</td>
</tr>
<tr>
<td>Hyphantornis dimidiatus.</td>
</tr>
<tr>
<td>&quot; feminina.</td>
</tr>
<tr>
<td>&quot; castanops.</td>
</tr>
<tr>
<td>Sitagra pelzelii.</td>
</tr>
<tr>
<td>Amblyospiza melanonota.</td>
</tr>
<tr>
<td>Quelea cardinalis.</td>
</tr>
<tr>
<td>Pyromelana ansorgei.</td>
</tr>
<tr>
<td>&quot; nigrifrons.</td>
</tr>
<tr>
<td>&quot; crassirostris.</td>
</tr>
<tr>
<td>Urobrachya phaeieca.</td>
</tr>
<tr>
<td>Coliuspasser soror.</td>
</tr>
<tr>
<td>Pytelia bellii.</td>
</tr>
<tr>
<td>Nigrita schistacea.</td>
</tr>
<tr>
<td>Nesocharis ansorgei.</td>
</tr>
<tr>
<td>Estrilda minor. (South to the Zambesi R.)</td>
</tr>
<tr>
<td>&quot; roseicrissa.</td>
</tr>
<tr>
<td>Lagonosticta ruberrima.</td>
</tr>
<tr>
<td>Neisna nyansa.</td>
</tr>
<tr>
<td>Serinusicterus.</td>
</tr>
<tr>
<td>Chrysomitis frontalis.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mirafra zumba.</td>
</tr>
<tr>
<td>&quot; tropicalis.</td>
</tr>
<tr>
<td>Anthus leggei.</td>
</tr>
<tr>
<td>Nectarinia erythrocerca.</td>
</tr>
<tr>
<td>Anthothreptes asillaris.</td>
</tr>
<tr>
<td>Cinnyris viridisplendens.</td>
</tr>
<tr>
<td>&quot; falkensteini.</td>
</tr>
<tr>
<td>&quot; igneiventris.</td>
</tr>
<tr>
<td>&quot; reichenowi.</td>
</tr>
<tr>
<td>Zosterops jacksoni.</td>
</tr>
<tr>
<td>Anthoscopus roccatii.</td>
</tr>
<tr>
<td>Telephonus emini.</td>
</tr>
<tr>
<td>Dryoscopus nandensis.</td>
</tr>
<tr>
<td>Cisticola carruthersi.</td>
</tr>
<tr>
<td>&quot; emini.</td>
</tr>
<tr>
<td>&quot; bellii.</td>
</tr>
<tr>
<td>&quot; chubbi.</td>
</tr>
<tr>
<td>&quot; nuchalis.</td>
</tr>
<tr>
<td>Bradypterus alfredi.</td>
</tr>
<tr>
<td>Calamocichla nilotica.</td>
</tr>
<tr>
<td>Apalis denti.</td>
</tr>
<tr>
<td>&quot; jacksoni.</td>
</tr>
<tr>
<td>Eminia lepida.</td>
</tr>
<tr>
<td>Sylviola barake.</td>
</tr>
<tr>
<td>&quot; toroensis.</td>
</tr>
<tr>
<td>&quot; leucophrys.</td>
</tr>
</tbody>
</table>
Burnesia melanops.
" reichenowi.

Turdus centralis.

Callene aequatorialis.

Neocossyphus prepectoralis.

Erythropygia hartlaubi.

Alethe carruthersi.

Crateropus kirki. (Ranging to the Zambesi R.)

Burnesia melanops.

Callene sequatorialis.

Neocossyphus prepectoralis.

Erythropygia hartlaubi.

Alethe carruthersi.

Crateropus kirki. (Ranging to the Zambesi R.)

Burnesia melanops.

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Alethe carruthersi.

Crateropus kirki. (Ranging to the Zambesi R.)

Burnesia melanops.

Callene sequatorialis.

Neocossyphus prepectoralis.

Erythropygia hartlaubi.

Alethe carruthersi.

Crateropus kirki. (Ranging to the Zambesi R.)

Burnesia melanops.

Callene sequatorialis.

Neocossyphus prepectoralis.

Erythropygia hartlaubi.
Merops superciliosus. (Ranging to Madagascar &c.)
Syrnium suahelicum.

The following 8 species were met with only in the Eturi and East-Congo Forests:

Spermospiza poliogenys.
Pholidornis denti.
Alethe woosmani.
Phyllanthus czarnikowi.

The following 91 West-African species have been met with in the neighbourhood of Ruwenzori and in the Lake-district, chiefly in the Eturi and Mpanga Forests:

Lamprocolius splendidas. 5000 ft.
Dierurus atripennis.
Oriolus lactior.
Malimbus malimbicus.

Heterhyphantes nigricollis.
Hyphantornis superciliosus.
Pyrenestes ostrinus.
Pyromelana franciscana.
Spermestes eucallatus.

Cisticola lateralis.

Nigrita fusconota.

Erythropygia ruficauda.

Alethe poliothorax.

Macrosphenus flavicans.

Turdinus fulvescens.

Cisticola rufopileata.

Apalis caniceps.

Bumiella carnapi?

Denteri.

Camaroptera superciliaris. (Met with at Mawambi.)

Stiphorornis xanthogaster. (Met with at Mawambi.)

Hylia prasina.

Burnesia bairdi.

Cossypha bartteloti.

Erythropygia ruficauda.

Alethe poliothorax.

Myrmecocichla nigra.

Phyllastrephus icterinus.

Ixonotus guttatus. (Extending to Mawambi, Eturi R., and Pontierville, Upper Congo.)

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Campophaga petiti. | Indicator exilis.
---|---
Graucalus azureus. | Corythaea cristata.
Alsconax epulatus. | Musophaga rosae.
" fantisiensis. | Centrurus eccentricalis.
" comitatus. | Clantherhæa aëreus.
Diaphorophyia castanea. | Cercococcyx mexhowi.
" jamesoni. | Chrysococcyx flavicularis.
Smithornis cameronensis. | Ceratogymna atrata.
" rufolateralis. | Lophoceros fasciatus.
" sharpeii. | Haleyon badius.
Artomyias fuliginosa. | Myioceyx rufoceps. (Avakubi.)
Terpsiphone duchalilai. | Pfeocophalus auribryanus. (Mawambi.)
Elminia longicauda. | Vinago calva.
 Hirundo gordonii. | Columba unicincta.
Psalidoprocne nitens. | Francolinus schuetti.
Dendromus caroli. | Pternistes cranchii.
Mesopicus ellioti. | 
Dendropicus lafresnayi. | 

The following 8 species known to occur in Angola were also met with in the Ruwenzori District:—

Estridula paludicola. | Cosmetornis vexillarius.
Parus insignis. | Bycanistes subquadriatus.
Pycnonotus tricolor. | Haleyon pallidiventris.
Terpsiphone ignea. | Pfeocephalus reichenowi.

The following 4 South-African forms range north to the Ruwenzori District:—

Cinnyris mariquensis. | Irrisor viridis.
Schoenica apicalis. | Turnix nana.

The following 94 widely distributed African species were met with in the neighbourhood of Ruwenzori; their range in other parts of Africa is indicated by the letters E. (=East), N.E. (=North-east), S.E. (=South-east), W. (=West), N.W. (=North-west), S. (=South), S.W. (=South-west), and T. A. (=Tropical Africa):—

Centuric albidus . . . . . . . . . E. & S. (Met with up to 14,000 ft.)
Pholidagæa verreauxi . . . . . . E., W., & S.
Dicrurus afer . . . . . . . . . . . E., W., & S.
Oriolus rolleti . . . . . . . . . . E. & S.W.
Anaplectes melanotis . . . . . . E., N.E., N.W., & S.W.
Hyphantornis xanthops . . . . . E., W., & S.
Sitagra ocularia . . . . . . . . . E., W., & S.
" lutocola . . . . . . . . . . . . . N.E. & N.W.
Quelea quelea . . . . . . . . . W. & S.
Pyromelana flammiceps . . . . E. & W.
<table>
<thead>
<tr>
<th>Species</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pyromelana xanthomelas</td>
<td>E. &amp; S.W.</td>
</tr>
<tr>
<td>Colius passer ardens</td>
<td>E., S.W., &amp; S.</td>
</tr>
<tr>
<td>Sporacrinthus subilavus</td>
<td>T. A.</td>
</tr>
<tr>
<td>Vidua serena</td>
<td>E., W., &amp; S.</td>
</tr>
<tr>
<td>Passer diffusus</td>
<td>E., W., &amp; S.</td>
</tr>
<tr>
<td>Emberiza flaviventris</td>
<td>E., W., &amp; S.</td>
</tr>
<tr>
<td>Motacilla vidua</td>
<td>T. A.</td>
</tr>
<tr>
<td>&quot; longicauda</td>
<td>T. A.</td>
</tr>
<tr>
<td>Anthus pyrrhonotus</td>
<td>E., W., &amp; S.</td>
</tr>
<tr>
<td>Macronyx croceus</td>
<td>E., W., &amp; S.</td>
</tr>
<tr>
<td>Nectarinia cupremitmus</td>
<td>E. &amp; W.</td>
</tr>
<tr>
<td>Anthothreptes zambesiama</td>
<td>E. &amp; W.</td>
</tr>
<tr>
<td>Cyanomitra ragazzi</td>
<td>E. &amp; W.</td>
</tr>
<tr>
<td>Cinnyris cupreus</td>
<td>E. &amp; W.</td>
</tr>
<tr>
<td>Telephonus erythropterus</td>
<td>W. &amp; S.</td>
</tr>
<tr>
<td>&quot; minutus</td>
<td>W. &amp; N.E.</td>
</tr>
<tr>
<td>Laniarius similis</td>
<td>E., N.W., &amp; S.</td>
</tr>
<tr>
<td>Lanius humeralis</td>
<td>E., ? W., &amp; S.</td>
</tr>
<tr>
<td>Cisticola rufa</td>
<td>W. &amp; S.E.</td>
</tr>
<tr>
<td>&quot; terrestris</td>
<td>E. &amp; S.</td>
</tr>
<tr>
<td>&quot; erythrops</td>
<td>E. &amp; W.</td>
</tr>
<tr>
<td>&quot; lugubris</td>
<td>E., W., &amp; S.</td>
</tr>
<tr>
<td>&quot; straguei</td>
<td>W. &amp; S.</td>
</tr>
<tr>
<td>Camaroptera griseoviridis</td>
<td>E. &amp; W.</td>
</tr>
<tr>
<td>Prinia mystacea</td>
<td>T. A.</td>
</tr>
<tr>
<td>Pratincola salax</td>
<td>E. &amp; W.</td>
</tr>
<tr>
<td>Campophaga nigra</td>
<td>E., W., &amp; S.</td>
</tr>
<tr>
<td>Graucalus crecius</td>
<td>E. &amp; S.</td>
</tr>
<tr>
<td>Meleornis pammelena</td>
<td>N.E. &amp; N.W.</td>
</tr>
<tr>
<td>Bradyornis marinus</td>
<td>E., S.W., &amp; S.</td>
</tr>
<tr>
<td>Parisma plumbeum</td>
<td>W. &amp; S.</td>
</tr>
<tr>
<td>Platystira cyanena</td>
<td>E. &amp; W.</td>
</tr>
<tr>
<td>Cotile cincola</td>
<td>N.E., W., &amp; S.</td>
</tr>
<tr>
<td>&quot; rufula</td>
<td>E., N.E., &amp; N.W.</td>
</tr>
<tr>
<td>Mesopicus pocecephalus</td>
<td>N.E. &amp; N.W.</td>
</tr>
<tr>
<td>Indicator variegatus</td>
<td>E. &amp; S.</td>
</tr>
<tr>
<td>&quot; minor</td>
<td>E. &amp; S.</td>
</tr>
<tr>
<td>Centropus superciliosus</td>
<td>E. &amp; S.W.</td>
</tr>
<tr>
<td>Coccytes cafer</td>
<td>T. A.</td>
</tr>
<tr>
<td>&quot; jacobinicus</td>
<td>T. A.</td>
</tr>
<tr>
<td>Caculus solitarius</td>
<td>T. A.</td>
</tr>
<tr>
<td>Chrysococcyx cupreus</td>
<td>T. A.</td>
</tr>
<tr>
<td>&quot; klaasi</td>
<td>T. A.</td>
</tr>
<tr>
<td>Metallococcyx smaragdineus</td>
<td>W. &amp; S.</td>
</tr>
</tbody>
</table>

2 x 2
ZOOLOGICAL RESULTS OF THE RUWENZORI EXPEDITION.

Hapaloderma narina .......................... T. A.
      " vittatum .................................. E. & W.
Colius macrurus ............................... E. & W.
Caprimulgus fossi .............................. E. & W.
      " natalensis ................................ N.E. & S.
Cosmetornis vexillarius ....................... S.E. & W.
Lophoceros melanoleucus ...................... E., S.W., & S.
Upupa africana ................................ W., & S.
Melittophagus meridionalis ................. E., S.W., & S.
Merops albicollis ............................ T. A.
Eurystomus afer .............................. T. A.
Halecyon chelicuteus ......................... T. A.
      " semicærulens .................. E. & W.
      " senegalensis .................. N.E. & W.
      " cyanoleucus ................ N.E., W., & S.E.
Ispidina picta ............................... N.E. & S.E.
Corythornis cyanostigma .................... T. A.
Glaucidium perlatum ......................... E., N.W., & S.
Bubo lacteus .................................. T. A.
Helotarsus ecaudatus ......................... T. A.
Lophoaëtus occipitalis ...................... T. A.
Buteo auguralis .............................. N.E. & W.
      " desertorum ................ N.E., E., & S.
Melierax gabar ............................... E. & S.
Accipiter melanoleucus ..................... T. A.
Anas sparsa .................................. E. & S.
Edicnemus vermiculatus ..................... E. & W.
Phyllopezus africanus ....................... T. A.
Lobivanelus lateralis ....................... E. & S.W.
Stephanibyx inornatus ...................... E., W., & S.
Gallinago nigripennis ....................... T. A.
Crex egregia ................................. T. A.
Columba arquatrix ........................... E., S.W., & S.
Turtur damarensis ........................... E., S.W., & S.
      " semitorquatus .......................... T. A.
Tympanistria tympanistria .................. E., W., & S.
Chalcopelia afr ................................ T. A.
Coturnix delegorguci ........................ T. A.
Excalfactoria adansoni ...................... T. A.
Guttera cristata .............................. E. & W.
The range of the following 19 species which occur in the Ruwenzori District extends beyond Africa:

<table>
<thead>
<tr>
<th>Species</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthus trivialis</td>
<td>Milvus aegyptius</td>
</tr>
<tr>
<td>Sylvia atricapilla</td>
<td>Cercia macrurus</td>
</tr>
<tr>
<td>&quot; hortensis</td>
<td>Querquedula circa</td>
</tr>
<tr>
<td>&quot; trochilus</td>
<td>Sarcidiornis melanota</td>
</tr>
<tr>
<td>Pratincola rubetra</td>
<td>Glareola pratinae</td>
</tr>
<tr>
<td>Merops apiaster</td>
<td>Totanus ochropus</td>
</tr>
<tr>
<td>&quot; persicus</td>
<td>Crex crex</td>
</tr>
<tr>
<td>Ceryle rudis</td>
<td>Turtur senegalensis</td>
</tr>
<tr>
<td>Motacilla flava</td>
<td>Elanus caeruleus</td>
</tr>
</tbody>
</table>

The species represented in the present collection may therefore be classified as follows:

- Number of species
- Species peculiar to the Ruwenzori range: 20
- Species found on the Ruwenzori range and also on the Mufumbiro Volcanoes: 6
- Species confined to the Ruwenzori District and to the great central chain of Lakes: 96
- East-African species ranging to the Ruwenzori District: 39
- Species peculiar to the Eturi and E. Congo Forests: 8
- West-African species ranging to the Ruwenzori District: 91
- Angolan species ranging to the Ruwenzori District: 8
- South-African species ranging north to the Ruwenzori District: 4
- Widely distributed species found in the Ruwenzori District: 94
- Species whose range extends beyond Africa, found in the Ruwenzori District: 19
- Total: 385

The following is a list of the 27 new species procured by the Ruwenzori Expedition:

- spermospiza poliogenys: xix. p. 32 (1906).
- Nectarinia dartmouthi: xvi. p. 117 (1906).
The following new species from Sierra Leone is also described in the present work:

Cinnyris kemi Grant, see p. 329.

Throughout this Report I have quoted Dr. Reichenow’s ‘Die Vögel Afrikas,’ which is the only descriptive work dealing with the Birds of Africa as a whole. The value of this great work is generally admitted, but its scientific usefulness is in many respects greatly lessened owing to the way in which the writings of other ornithologists have been treated or even ignored by the author. In many instances perfectly distinct and well-characterised species, which have not been examined by Dr. Reichenow, are suppressed and placed in the synonymy of some more or less allied form, while quite a number of supposed geographical races described at length by the author appear to have no real existence.

Though much of the information contained in the ‘Vögel Afrikas’ is derived from the twenty-seven volumes of the ‘Catalogue of the Birds in the British Museum,’ that great work is only referred to in the case of the new species of African birds described therein. On the other hand, some comparatively useless works are quoted in the synonymy.

In the lists of specimens procured by the Expedition the letter “d.” placed over some of the collectors’ numbers indicates that those examples were duplicates not retained in the series kept for the British Museum. The initials within the brackets signify the name of the collector, thus:—R. E. D. (=R. E. Dent); D. C. (=Douglas Carruthers); G. L. (=Hon. Gerald Legge) and R. B. W. (=R. B. Woosnam).

The field-notes and observations by Mr. Woosnam on the local range of the various species will be found in square brackets with his initials appended to them.
Family **Corvidae**.

*Corvus albicollis* (Lath.).


*a.* **♀.** Mubuku Valley, E. Ruwenzori, 12,500 ft., 16th Feb. [No. 158. *R. E. D.*]

Iris dark brown; bill black, white at the tip; feet black.

This Raven was met with by the Mackinder Expedition on Mount Kenia up to an elevation of 10,000 ft.

[The White-necked Raven was seen on Ruwenzori up to an elevation of 14,000 ft. A pair had a nest in a cliff overhanging our camp at 12,500 ft., but the species was not very common at these altitudes and was most numerous below 7000 ft.—*R. B. W.*]

Family **Sturnidae**.

*Pholidauges verreauxi* Bocage.

*Pholidauges verreauxi* Jackson, Ibis, 1899, p. 589 [Njemps, Eldoma Ravine].


*a.* **♂ imm.** 60 miles N. of Fort Beni, Semliki Valley, 3500 ft., 16th Aug. [No. 1785. *D. C.*]

Iris pale yellow; bill and feet black.

This example of Verreaux’s Glossy Starling is in an interesting stage of plumage, showing the change in the contour feathers of the upperparts from the immature to the adult. Some of the feathers of the back are brown, others brilliant metallic purple, and many of those on the crown and nape are still in quill.

[A single specimen obtained on the eastern edge of the Eturi Forest, near Irumu.—*R. B. W.*]

*Pholidauges sharpei* Jackson.

*Pholidauges sharpei* Jackson, Ibis, 1899, pp. 303, 590, pl. xii. [Nandi, Eldoma Ravine].


*b.* **♂ ♀.** 9000 ft., 3rd March. [Nos. 180, 182. *R. E. D.*]

Iris bright yellow in the *male*, yellowish-green or greenish-brown in the *female* bill and feet black.

This rare Starling was described by Mr. Jackson from specimens procured by him at the Eldoma Ravine in 1897. It has also been recorded by Dr. Reichenow from the north of Lake Nyasa, and was described by him as a new genus of Flycatchers’
The pair collected by Mr. R. E. Dent were said to be breeding. As suggested by Dr. Sharpe (cf. 'Ibis,' 1899, p. 590), the adult female resembles the male in plumage, but has the belly, &c., of a paler cinnamon-rufous; it is, moreover, smaller.

The measurements of the above specimens are as follows:

<table>
<thead>
<tr>
<th></th>
<th>Wing</th>
<th>Tail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>4·0</td>
<td>2·55</td>
</tr>
<tr>
<td>Female</td>
<td>3·8</td>
<td>2·35</td>
</tr>
<tr>
<td>Female</td>
<td>3·6</td>
<td>2·3</td>
</tr>
</tbody>
</table>

[Sharpe's Starling was occasionally seen on the east side of Ruwenzori from an altitude of 6500 ft. up to 8500 ft., but was distinctly rare. Parties were sometimes seen flying in company with the flocks of Cinnamopterus tenuirostris, but whether this is the usual custom of the species it is difficult to say.—R. B. W.]

**Lamprocolius splendidus** (Vieill.)


Adult male and female. Iris white; bill and feet black.

Both pairs of this extremely beautiful Glossy Starling are apparently in freshly moulted plumage; but the birds killed in July have the tips of the tail-feathers slightly worn.

There can be little doubt that *L. glauco-virens* Elliot is founded on a male example of *L. splendidus* (Vieill.). Owing, no doubt, to the lack of specimens in which the sex had been ascertained, Dr. Sharpe (Cat. Birds B. M. xiii. pp. 172, 173) considered the sexes to represent distinct species. The specimens referred by him to *L. splendidus* with the "throat bluish-purple and the head of the same metallic-green as the mantle" are all females; while those with the "throat reddish-purple and the head steel-blue or steel-green, contrasting with the oil-green of the mantle," and named *L. glauco-virens*, are all males.

The measurements of the four specimens procured by the Expedition are as follows:

<table>
<thead>
<tr>
<th></th>
<th>Wing</th>
<th>Tail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>6·1-6·2</td>
<td>4·6-4'85</td>
</tr>
<tr>
<td>Females</td>
<td>5·6-5·95</td>
<td>4·4-4'5</td>
</tr>
</tbody>
</table>

[This handsome Glossy Starling was seen throughout the journey from Victoria]
Nyanza to the edge of the Eturi Forest. It was not found on Ruwenzori above an altitude of 5000 ft.—R. B. W.]

**CINNAMOPTERUS TENUIROSTRIS (Rüpp.).**


Iris dark hazel-brown or dark brown; bill and feet black. The colours of three immature birds are similar to those of the adult.

In my notes on the birds collected in Sokotra (cf. Nat. Hist. Sokotra and Abd-el-Kuri, p. 23) I pointed out the interesting fact that in the young female of the Starling *Amydrus blythi* the head and neck are black like those of the *male parent*, the grey plumage of the adult female being subsequently assumed. The same peculiarity is noticeable in the present species. Immature birds, both male and female, resemble the *male parent* in lacking all trace of grey edgings to the feathers; but the whole plumage is much less glossy. In the adult male the feathers of the back and underparts below the throat are black widely margined with purplish-bronze; in the young the feathers of the back are more narrowly edged with bluish-purple and the underparts are dull black with scarcely any gloss. The tail in the immature bird is shorter than in the adult.

<table>
<thead>
<tr>
<th>Wing.</th>
<th>Tail.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult ♂</td>
<td>♀</td>
</tr>
<tr>
<td>6·3</td>
<td>7·5</td>
</tr>
<tr>
<td>5·9</td>
<td>6·5</td>
</tr>
<tr>
<td>5·8</td>
<td>5·6</td>
</tr>
</tbody>
</table>

[These Red-winged Starlings were plentiful on Ruwenzori from 6500 to 10,000 ft. They were usually seen in large flocks flying up or down the valleys; great numbers used to roost in the tall trees and cliffs around the camp at 10,000 ft., and their shrill call was one of the few bird-notes that was to be heard above 9000 ft. They appeared to feed largely upon the berries of the Podocarpus (*P. milanjiana*).—R. B. W.]
P. stuhlmanni Reichenow.


Iris yellow; bill and feet black.

This specimen, which is no doubt immature, has the plumage mostly black with very little of the oil-green gloss on the underparts which is characteristic of the adult female; it is also a somewhat smaller bird, the tail especially being shorter.

Adult female. Wing 3·9 inches; tail 3·05.

Immature female. Wing 3·5 inches; tail 2·4.

[This small Red-winged Starling was shot among the tops of high trees.—R. B. W.]

Lamprotornis porphyropterus Rüpp.


Lamprotornis porphyropterus Jackson, Ibis, 1906, p. 568 [Toro; Ankoli]; Grant, Ibis, 1902, p. 401, 1907, p. 580.


c.♂. 100 miles W. of Entebbe, 4000 ft., 7th Dec. [No. 2022. G. L.]

d.♂♂. 120 miles W. of Entebbe, 4200 ft., 8th Dec. [No. 1051. D. C.]

e.♂♂. Mokia, S.E. Ruwenzori, 3400 ft., 24th April. [No. 1427. D. C.]

*f, g.♂♂. ” ” ” 5th & 19th May. [Nos. 344. R. E. D.; 2334. G. L.]


Iris white or very pale yellow; bill and feet black.

The characters by which this shorter-tailed form of the Purple-winged Glossy Starling is distinguished from *L. aneocephalus* Heugl. have already been pointed out at some length in my papers in the ‘Ibis,’ quoted above.

The measurements of the above series are as follows:—

<table>
<thead>
<tr>
<th></th>
<th>Wing.</th>
<th>Tail.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>in.</td>
<td>in.</td>
</tr>
<tr>
<td>Males</td>
<td>5·9—6·1</td>
<td>5·55—5·8</td>
</tr>
<tr>
<td>Females</td>
<td>5·1—5·3</td>
<td>4·6—5·0</td>
</tr>
</tbody>
</table>

In freshly moulted examples, such as No. 344, killed on the 19th of May, the feathers of the back and breast are purplish-green; in worn examples, such as specimen 1051, killed on the 8th of December, the feathers of these parts are mostly deep violet, while the exposed portions of many of the quills are brownish-black and entirely lack the metallic gloss.
[This Glossy Starling was seen throughout the journey from Entebbe to Ruwenzori; it was not observed on the mountains, but was not uncommon in the acacia-country at the south end of the range.—R. B. W.]

Family **Dicruridae**

**Dicrurus afer** (Licht.).


_Buchanga afer_ Jackson, Ibis, 1906, p. 567 [Toro].

<table>
<thead>
<tr>
<th>Specimen</th>
<th>Date</th>
<th>Location</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. ♀</td>
<td>60 miles W. of Entebbe, 3700 ft., 29th Nov.</td>
<td>[No. 17. R. E. D.]</td>
<td></td>
</tr>
<tr>
<td>b. ♂</td>
<td>100 miles W. of Entebbe, 4100 ft., 6th Dec.</td>
<td>[No. 1035. D. C.]</td>
<td></td>
</tr>
<tr>
<td>h–k. ♂ ♀</td>
<td>Mokia, S.E. Ruwenzori, 3400 ft., 10th–16th June.</td>
<td>[Nos. 446, 461, 464. R. E. D.]</td>
<td></td>
</tr>
</tbody>
</table>

Iris red, claret or reddish-brown in adults, hazel or brown in immature examples; bill and feet black.

[This Drongo was seen near Entebbe and along the eastern side of Ruwenzori, as well as in the upper part of the Semliki Valley.—R. B. W.]

**Dicrurus atripennis** Swains.


<table>
<thead>
<tr>
<th>Specimen</th>
<th>Date</th>
<th>Location</th>
<th>Observations</th>
</tr>
</thead>
</table>

Iris crimson or claret-colour; bill and feet black.

The presence of this West-African Drongo in the Eturi Forest is of interest, as hitherto it has only been recorded as occurring between Gambia and the Gaboon. Both specimens are in freshly moulted plumage, most of the tail-feathers in No. 3639 being only partially grown.

The two females measure respectively:

<table>
<thead>
<tr>
<th>Wing. in.</th>
<th>Tail. in.</th>
</tr>
</thead>
<tbody>
<tr>
<td>a . . . . . 4-3</td>
<td>3-6</td>
</tr>
<tr>
<td>b . . . . . 4-5</td>
<td>3-9</td>
</tr>
</tbody>
</table>

[Not uncommon in the forests around Fort Beni, Irumu, and Mawambi.—R. B. W.]
Family Oriolidae.

Oriolus rolleti Salvadori.


a. ♂. 120 miles W. of Entebbe, 4200 ft., 8th Dec. [No. 1046. D. C.]


f. ♀. Mokia, S.E. Ruwenzori, 3400 ft., 19th June. [No. 1646. D. C.]

Iris light red, red, or dark red; bill flesh-colour, pink, reddish-brown, or brown; feet grey, dark grey, bluish-grey, or black.

The male (No. 310) shot on the 10th May is marked by Mr. Dent as being a breeding-bird. It appears to be perfectly adult, but shows scarcely a trace of any yellow colour on the hind-neck, which is only a little brighter than the back. A female (No. 1534) shot on the same date has the yellow collar on the hind-neck well developed (as is the case in all the other birds both male and female), and the feathers of both the mantle and the breast have narrow dusky shaft-streaks.

[Rollet's Oriole was obtained near Entebbe and was seen occasionally throughout the journey to Ruwenzori. It was not uncommon among the taller acacia-trees on the plains around the south end.—R. B. W.]

Oriolus letior Sharpe.


Male. Iris dark red; bill pink; feet dark grey.

Female. Iris dark chestnut; bill reddish-brown; feet grey.

Immature female. Iris light brown; bill dark brown; feet grey.

This Oriole was originally described in the briefest manner from a specimen from Gaboon. It also inhabits the Cameroon district, and has been procured by Dr. Ansorge near Fort Beni.

A marked difference in plumage between the sexes of this species has hitherto been overlooked and is worth recording. The male, besides having a much wider and more brilliant yellow collar which extends over the mantle, differs from the female in
having the inner webs of the innermost secondary-quills widely margined with deep black, contrasting sharply with the olive-green portion which lies next to the shaft. In the female the yellow collar is paler and much narrower (much as in males of *O. brachyrhynchos*), and the inner webs of the innermost secondaries are olive-green, gradually shading into dusky olive towards the margin.

The nearly allied *O. brachyrhynchos*, which ranges from Sierra Leone to Togo, appears to show the same sexual differences as regards the coloration of the innermost secondary-quills, but in none of the specimens in the British Museum Collection has the sex been determined.

[This Yellow-collared Oriole appears to be plentiful in the Congo Forest. It was not often seen, but a clear mellow note, presumably of this species, was often heard from among the tree-tops. It was plentiful in the Mpanga Forest, east of Ruwenzori. —R. B. W.]

**Oriolus percivali** Grant.

*Oriolus larvatus* Sharpe, Ibis, 1891, p. 243 [part., nos. 301, 324, Elgon].
*Oriolus rolleti* Jackson, Ibis, 1899, p. 595 [part., nos. 1226, 1228, 1249, Nandi].


Iris dark crimson; bill "bone"-colour; feet slate-grey.

The type of this species was procured by Mr. A. B. Percival in the Kikuyu Forest, and there are specimens in the Jackson Collection from Mt. Elgon and Nandi, which are referred to in the synonymy given above.

The present specimen, a female, differs only from the type in its somewhat smaller size: wing 5·2 inches; tail 3·5.

**Family Ploceidae.**

**Malimbus centralis** Reichenow.


Iris dark brown or dark crimson; bill and feet black.

This is merely a slightly smaller form of *M. rubricollis* (Swains.), the bill, as pointed out by Dr. Reichenow, being much more slender than in the typical West-African form.

[Reichenow’s Malimbe was plentiful in the Mpanga Forest. It was only seen among the tops of the tall trees and never among the undergrowth.—R. B. W.]
MALIMBUS MALIMBUS (Daud.).


Iris dark brown or dark hazel; bill and feet black.
[The Crested Malimbe was found in the Congo Forest, where it frequented the tops of tall trees.—R. B. W.]

MALIMBUS FAGANI Grant. (Plate X, fig. 1, ♂.)


a. ♂. Fort Beni, Semiliki Valley, 3000 ft., 21st July. [No. 3508. R. B. W. Type of the species.]

This species is very closely allied to M. erythrogaster Reich., but differs in having a smaller bill, the red on the crown and underparts more intense, and the flanks, thighs, and under tail-coverts mostly black, some of the feathers being more or less mixed with red. Iris dark brown; bill black; feet brown. Total length 6 inches; culmen 0·9; wing 3·6; tail 2·05; tarsus 0·9.

The type of this species, a fine adult male specimen, has been compared with male and female examples of M. erythrogaster Reichenow, collected by Dr. W. J. Ansorge in Southern Nigeria, and kindly sent me for examination from the Tring Museum. These agree well with Dr. Reichenow’s description and figure of the types of M. erythrogaster, which were procured by Dr. Zenker at Jaunde, Cameroon.

Though the differences mentioned above are not very pronounced, they seem to indicate that the specimen from Fort Beni represents a distinct form.

MALIMBUS NIGERRIMUS (Vieill.).


Malimbus nigerrimus Grant, Ibis, 1908, p. 278 [Upper Congo].


Adult male. Iris yellow or light yellow; bill black; feet brown.
Adult female. Iris dirty yellow; bill dark horn-colour; feet brown.

[Vieillot’s Black Malimbe was very numerous in the clearings in the Congo Forest and a few were also seen in the Mpanga Forest, east of Ruwenzori. It was nesting in
huge colonies, and in one place a tall tree had at least 100 nests of this bird hanging from its branches.—R. B. W.]

**Anaplectes melanotis** (Lafr.).


a, b, c ♀. Mokia, S.E. Ruwenzori, 3400 ft., 26th & 30th April. [Nos. 244, 261. R. E. D.]


**Adult male.** Iris reddish-brown, chocolate, or hazel; bill scarlet; feet brown or mauve.

**Adult female.** Iris dark brown or hazel; bill red; feet brown or light brown.

The female (b) shot on the 30th of April is in very worn plumage, the feathers, especially those of the breast, having the terminal half more or less worn off. All three males are moulting, and many of the scarlet feathers of the head and throat are being renewed.

[A few examples of the Red-winged Anaplectes were found in the acacia-forest on the plains round the south end of Ruwenzori, but the species was by no means common.—R. B. W.]

**Sycobrotus mentalis** (Hartl.).


*Sycobrotus nandensis* Jackson, Ibis, 1899, p. 615.


Iris crimson; bill slate-blue; feet flesh-colour.

This bird is no doubt a male of *S. mentalis* (Hartl.) and closely resembles the female type of *S. nandensis* Jackson, but the underparts are much brighter yellow, especially on the chest and breast. As in the type of *S. nandensis*, there is an interrupted half-hidden line of black spots down the middle of the chest, formed by some of the median feathers having one web partially black; the grey back and upperparts are slightly paler and have a distinct yellowish tinge. Total length 5·5 inches; wing 3·3; tail 2·05; tarsus 0·85.

Dr. Hartert has kindly forwarded from the Tring Museum the type of *S. entalis* (Hartl.), procured by Emin at Buguera (Wadelai); also four examples collected by Herr R. Grauer in the Mpanga Forest. These latter show considerable variation as regards the amount of yellow on the throat, one having the throat almost entirely
black, while another has the middle of the throat mostly yellow and closely resembles the type of *S. mentalis*. There can be little doubt that the type of *S. nandensis* is a female of the present species, and that the name should be added to the synonymy.

In the type of *S. mentalis* (a male) the wing measures 3.4 inches; in five males from the Mpanga Forest the wing measures 3.1–3.3; and in the type of *S. nandensis* (a female) it measures 3.2.

[The Black-chinned Grey-backed Weaver was not uncommon in the Mpanga Forest, and was also observed in the Congo Forest.—*R. B. W.*]

**Heteropyrrhantes stuhlmanni** Reich.

*Symplectes stuhlmanni* Hartert, Nov. Zool. vii. p. 42 (1900) [Uganda; Toro; Unyoro].

*Ploceus stuhlmanni* Reich. Vög. Afr. iii. p. 40, pl. xii. fig. 3 (1904).

*Oryzophebus stuhlmanni* Shelley, B. Afr. iv. p. 453 (1905); Jackson, Ibis, 1906, p. 566 [Toro].

*a, b, c et d* imm. 130 miles W. of Entebbe, 4000–4200 ft., 10th Dec. [Nos. 45. *R. E. D.;* 3051. *R. B. W.*]

*c, d.* Mubuku Valley, E. Ruwenzori, 6000 ft., 29th Dec. [No. 55. *R. E. D.*]


*j, k, l, m, n, o, p, q, r, s, t, u, v, w, x, y, z.* Mubuku Valley, E. Ruwenzori, 5000–6000 ft., 14th–25th March. [Nos. 2196, 2197, 2222, 2230, 2234, 2247. *G. L.*]

*Adul male and female.* Iris white or pale yellow; bill black; feet brown, light brown, or flesh-colour.

*Immadure.* Iris hazel or dark brown (one marked "grey"); bill and feet brown.

The immature bird differs from the adult in having the top and sides of the head olive-green; the mantle and back greenish-olive, more heavily streaked, and the underparts paler yellow, washed with buff, especially on the flanks.

This species was not previously represented in the British Museum, though there were two examples in Mr. Jackson's collection.

Dr. Reichenow describes the female of *H. stuhlmanni* as having the belly white, washed with brownish, and the under tail-coverts pale golden. Captain Shelley, on the other hand, says that the female is nearly like the male in plumage, with the entire underparts bright yellow. This is no doubt the case, as all our female specimens differ from the males only in having the olive-green of the nape extending on to the occiput, whereas in the males the entire top of the head and nape are black. The
bird described by Dr. Reichenow as the female of his *H. stuhlmanni* is certainly neither the adult female nor the young bird of that species; possibly it is the female of *H. emini* Hart., which more or less answers the description as regards the colour of the belly, &c.

I may here mention that both Dr. Reichenow and Captain Shelley have united *Heterophantes zaphiroi* (Grant) from Abyssinia with *H. emini*, the latter stating that *H. zaphiroi* with its black back is merely the summer plumage of *H. emini*. There is no evidence to prove that the feathers of the back in *H. emini* become uniform black in summer, or *vice versa*, quite the contrary. In the nearly allied *H. reichenowi* Fischer, which has the abdomen yellow, the feathers of the back remain black throughout the year. All the evidence goes to prove that *H. zaphiroi* is a perfectly distinct species. The British Museum possesses an adult male from Adis Ababa procured by Captain Welby. This specimen, like the female type and a second specimen sent by Mr. Zaphiro, has the mantle and back entirely black. The date of capture is not recorded.

[Stuhlmann's Weaver was seen near Entebbe and at Fort Portal; it was numerous on Ruwenzori up to an elevation of 7000 ft., both on the eastern and western sides.—R. B. W.]

**Heterophantes stephanophorus** Sharpe.

*Heterophantes stephanophorus* Sharpe, Ibis, 1891, pp. 117, 253, pl. vii. fig. 2; Shelley, B. Afr. iv. p. 379 (1905).


**Adult female.** Iris crimson or chestnut; bill black; feet slate or grey.

The female of this species is readily distinguished from that of the nearly allied western representative *H. melanogaster* (Shelley). In the present species the yellow on the crown scarcely extends beyond the posterior margin of the eye, whereas in the latter species the entire crown is yellow.

In the males of this species the extent of the yellow on the crown seems to vary somewhat. In the type-specimen from Mau, as well as in birds from Nandi and Mount Elgon, the yellow extends considerably behind the eye; while in birds from Toro it is shorter and does not usually extend beyond the posterior margin.

[A few examples of Jackson's Yellow-headed Black Weaver were found in the Mpanga Forest, but they were rather uncommon. They appeared to frequent the undergrowth and not the tree-tops.—R. B. W.]
Heterohyphantes nigricollis (Vieill.).


g. Imm. Mpanga Forest, Fort Portal, 5000 ft., 20th Sept. [No. 549. R. E. D.]

*Adult male.* Iris brown or dark brown; bill black; feet grey or bluish-brown.

*Adult female.* Iris light or dark brown; bill black; feet grey or slate-colour.

*Immature.* Bill dusky (pale horn-colour in skin).

In the oldest male examples the back is deep black like the broad nuchal band with which it is confluent, and the feathers of the rump and upper tail-coverts are mixed with black and olive. In younger male examples the back is strongly washed with olive and contrasts more or less sharply with the black nuchal band; the rump and upper tail-coverts are olive.

[Vieillot's Black-and-Yellow Weaver was not uncommon in the forest near Fort Beni and was also met with in the Mpanga Forest. It has a very remarkable double note, both soft and musical, like the striking of two or three glass finger-bowls at the same time.—R. B. W.]

Cinnamopteryx mpanga Grant.


*Type of the species.*

This species is most nearly allied to *C. tricolor* (Hartl.), but the black on the head is continued on to the nape and the yellow band across the upper mantle is much narrower, being confined to three or four series of the shorter feathers, which are merely tipped with yellow and have the blackish basal portion separated by a white band. Iris dark brown; bill black; feet dark brown. Total length ca. 6 inches; culmen 0·8; wing 3·5; tail 2·05; tarsus 0·9.

Since I described this Weaver I have recently examined three males of this species procured by Mr. Jackson's collectors in the Kibera Forest, Toro. Two agree in all respects with the type, but in the third specimen the yellow band across the mantle is rather wider, and in this respect approaches the West-African *C. tricolor*.

[A single example of this Chestnut Weaver was obtained in the Mpanga Forest, east of Ruwenzori. It was one of a pair which had a nest suspended at the end of a thin bough, about 60 ft. from the ground. The nest was about three parts finished by the middle of September, when we moved our camp. Unfortunately we failed to obtain the female.—R. B. W.]
HYPHANTORNIS DIMITIATUS Antin. & Salvad.


b. Imm. 100 miles W. of Entebbe, 4000 ft., 7th Dec. [No. 2023. G. L.]
c. d. ♂ 120 miles W. of Entebbe, 4000 ft., 8th & 9th Dec. [Nos. 3044, 3048. R. B. W.]


q. ♀. Mokia, S.E. Ruwenzori, 3400 ft., 17th June. [No. 2407. G. L.]

r. ♂. Fort Beni, Semiliki Valley, 3000 ft., 22nd July. [No. 1742. D. C.]

Adult male and female. Iris brown or dark brown; bill black in male, lower mandible brown in female; feet brown.

This Weaver was found breeding at Mokia on the 9th and the 25th of May. There are full-plumaged males killed in November, December, April, May, and July. One male specimen dated the 8th of December is in nearly full plumage, but still retains some of the heavily black-striped feathers of the female plumage on the back, while the underparts are mixed with buff feathers. Another male specimen killed on the 5th of April, as well as a specimen marked female (No. 3321) obtained on the 4th of May (in full male plumage, vide supra), have black shaft-stripes to the feathers of the mantle.

This species ranges from Wadelai in the north to South Ruwenzori in the south, and extends eastwards to Entebbe. It is quite distinct from H. jacksoni Shelley, which ranges from Arusha and Kilimanjaro to Lake Baringo and Entebbe. Captain Shelley states that there are in the Jackson Collection specimens of H. jacksoni procured at Butiaba, on Albert Nyanza; but this is certainly an error, as one of the specimens in question, a full-plumaged male, is clearly referable to H. dimidiatus. I have examined full-plumaged males of both species from Entebbe, where their ranges meet.

The adult male of H. jacksoni may be recognized by having the culmen nearly straight, the black of the head continued on to the hind-neck, the mantle, like the back of the neck, bright yellow, and the breast and belly deep chestnut.

In H. dimidiatus the culmen is curved; the black of the head does not extend

* Marked "♀," but with plumage like that of the adult male, except that the black on the occiput is mottled with reddish-orange and the back is striped.
beyond the occiput and is divided from the olive-yellow mantle by a bright yellow collar; the breast is orange-chestnut; and the belly is mostly yellow, only the sides and flanks being washed with orange-chestnut.

The female of *H. jacksoni* is easily distinguished from the female of *H. dimidiatus*, as the following comparative table of characters will show:

<table>
<thead>
<tr>
<th><em>H. dimidiatus</em>, ♀</th>
<th><em>H. jacksoni</em>, ♀</th>
</tr>
</thead>
<tbody>
<tr>
<td>General colour of the back and rump pale brown; the mantle streaked with black; upper tail-coverts sandy-brown.</td>
<td>General colour of the back and rump olive, the mantle streaked with black; upper tail-coverts bright olive-green.</td>
</tr>
<tr>
<td>Throat white; breast and sides of the body pale buff; middle of the belly and under tail-coverts whitish.</td>
<td>Throat and rest of the underparts pale yellow, slightly washed with buff on the sides of the body and flanks.</td>
</tr>
</tbody>
</table>

[Antinori's Black-headed Weaver was plentiful all round the south end of Ruwenzori below 5000 ft. and at Fort Beni. It was generally seen singly or in pairs.—*R. B. W.*]

The eggs of *H. jacksoni* are figured from specimens in the Jackson Collection (Pl. XIX. figs. 2, 4 (eggs)).

**Hyphantornis intermedius** (Rüpp.).


*Hyphantornis intermedius* Grant & Reid, Ibis, 1901, p. 622 (S. Abyssinia); Shelley, B. Afr. iv. p. 401 (1905) [part.].


g. ♀ imm. Mokia, S.E. Ruwenzori, 3400 ft., 18th June. [No. 470. *R. E. D.*]

*Adult male.* Iris white or cream-colour; bill black; feet grey or blue.

*Adult female.* Iris pale yellow or yellow; bill dark horn-colour or brown; feet grey or slate-colour.

*Immature.* Iris dark brown; otherwise as in the female.

The Ruwenzori birds appear to be fairly typical examples of *H. intermedius*, but the type from Abyssinia has the nape and occiput rather more strongly washed with brownish-orange. The nearly allied *H. cobanisi* Peters, the southern representative of the present species, has the occiput and nape bright yellow and appears to be a perfectly distinct form. Captain Shelley, who does not keep the two forms separate, has followed the 'Catalogue of Birds' in referring certain specimens in the British Museum from Lamu and Pangani to the southern form, *H. cobanisi*, which he says is found south of the Equator; but, in my opinion, they should really be referred to
the northern form, *H. intermedius*. The only adult male procured by Mr. Pease at Daira Aila, in Southern Abyssinia, is clearly referable to *H. intermedius*.

I have examined full-plumaged males of typical *H. intermedius* from Shoa, Southern Abyssinia, Lamu, Pangani, and from South-east Ruwenzori; and of *H. cubanisi* from Nyasaland, Matsabele, Bamangwato, and Damaraland.

[The Intermediate Masked Weaver was only met with on the plains at the south-east end of Ruwenzori.—R. B. W.]

**Hyphantornis feminina** Grant.


- **a.** ♀. 30 miles W. of Entebbe, 3500 ft., 26th Nov. [No. 2006. *G. L.*]
- **b.** ♂. 40 miles W. of Entebbe, 3500 ft., 27th Nov. [No. 3010. *R. B. W.*]
- **c.** ♀. 50 miles W. of Entebbe, 3700 ft., 28th Nov. [No. 2010. *G. L.*]

The **adult male** does not appear to differ in any marked particular from typical males of *H. abyssinicus* (Gmel.). Iris pink, red, orange, chestnut, or brown; bill dark horn-colour or black; feet brown or flesh-colour. Total length 5'8 inches; culmen 0'85; wing 3'5; tail 2'05; tarsus 0'9.

The **adult female** differs from the female of *H. abyssinicus* (Gmel.), which has the chin and throat yellow and the rest of the underparts buff, in having the underparts mostly yellow, much as in *H. cucullatus* (Müll.). Freshly moulted females (April to May) have the mantle and back washed with dull greenish-yellow, while in a winter specimen (November) these parts are greyish-brown in strong contrast to the head and nape, which are washed with yellow. Total length 5'8 inches; culmen 0'85; wing 3'15; tail 1'85; tarsus 0'87.

There are numerous examples of this form in the Jackson Collection from various localities in Uganda.

[This large Weaver was plentiful on the plains at the south-eastern end of Ruwenzori and also at Fort Beni. It was breeding in large colonies in the acacias and hundreds of nests might be seen in a single tree.—R. B. W.]

* Types of the species.
Hyphantornis xanthops Hartl.

P. x. jamesoni (Sharpe) and P. x. camburni (Sharpe); Reich. l. c. p. 90 (1904).
Xanthophilus xanthops Shelley, B. Afr. iv. p. 483 (1905); Jackson, Ibis, 1906, p. 566 [Toro].
Hyphantornis xanthops Grant, Ibis, 1908, p. 277 [Lakes Kivu and Tanganyika].

g. ♂. Mokia, S.E. Ruwenzori, 3400 ft., 18th May. [No. 2362. G. L.]

Adult male. Iris yellow; bill black; feet brown.
Adult female. Iris cream-colour; bill black; feet flesh-colour or brown.
Immature. Iris grey or dark brown; bill yellow (dark at the base); feet brown or slate-colour.

Dr. Reichenow regards H. camburni Sharpe and H. jamesoni Sharpe as subspecies of H. xanthops. There can, however, be no doubt that the type of H. camburni, from the Nairobi Forest, is a quite young male example of H. xanthops; while the type of H. jamesoni, from the Umvuli River, is a nearly adult male of the same species, but with less yellow on the head. Captain Shelley has very properly united all under H. xanthops, but at the same time he maintains that the southern form from south of the Zambesi (H. jamesoni) is a greener bird, while that found to the north is brighter and yellower (H. aurantiogula Cab. and H. camburni). The series in the British Museum seems, however, to show that birds from the south when fully adult are almost, if not quite, as bright as examples from the more northern parts of this bird’s range. Of two male birds collected by Mr. Carruthers at Lakes Kivu and Tanganyika respectively, that from the former and more northern locality has the back greener and the crown much less brilliant, the difference being no doubt entirely due to age.

[A few examples of Hartlaub’s Golden Weaver were seen on the plains on the east side of Ruwenzori.—R. B. W.]

Hyphantornis castanops (Shelley).

a, b. ♂. Fort Portal, 3500 ft., 5th July. [Nos. 3499, 3500. R. B. W.]

Iris very pale yellow; bill black; feet brown.
The male, a very fine specimen, has the lores and chin black, and, in this respect, differs slightly from any of the specimens in the British Museum or in the Jackson Collection.
[A few examples of the Nile Brown-throated Weaver were seen at Fort Portal. They were breeding in July; their nests, rather small in size and almost perfectly round, were composed of fine strips of grass and creepers not very compactly woven together. There were five or six nests hanging from the boughs of a small tree, but only one pair of birds appeared to inhabit the tree.—R. B. W.]

**Hyphantornis superciliosus** (Shelley).


\[a-e. \delta \varphi. \text{Fort Beni, Semiliki Valley, } 3000 \text{ ft., } 22\text{nd July.} \]  
\[\text{Nos. } 490. R. E. D.; \]
\[1741. D. C.; 2422, 2423, 2424. G. L. \]

Iris brown or dark brown; upper mandible black, lower mandible grey; feet brown.

When volume xiii. of the 'Catalogue of the Birds' was written the series of examples of this species in the British Museum included only West-African specimens, which ranged from the Gold Coast to the Loango Coast and northwards to Shonga on the River Niger. The species is known, however, to occur in Liberia and to extend eastwards to the Lakes. There are four examples in the Jackson Collection from Lewekala, in Uganda, killed in the month of August, and these, like the July specimens in the present collection, are in full or nearly full breeding-plumage.

[The Compact Weaver was only met with in the neighbourhood of Fort Beni, where it was not uncommon.—R. B. W.]

**Sitagra aliena** Sharpe. (Plate XIX. fig. 18, egg.)


*Hyphanturus alienus* Shelley, B. Afr. iv. p. 392, pl. xxxix. fig. 2 (1905).

\[a-b. \delta \varphi \text{ et } \delta \varphi \text{ imm. Mubuku Valley, E. Ruwenzori, } 6000-7000 \text{ ft., } 5\text{th-20th Jan.} \]  
\[\text{Nos. } 65, 68, 81, 86, 117. R. E. D.; 1103, 1116, 1139. D. C.]  
\[i, k. \delta \varphi. \text{Mubuku Valley, E. Ruwenzori, } 6500-7000 \text{ ft., } 6\text{th & } 11\text{th Feb.} \]  
\[\text{Nos. } 2145, 2154. G. L.]  
\[l-s. \delta \varphi \text{ et } \delta \varphi \text{ imm. Mubuku Valley, E. Ruwenzori, } 7000-9000 \text{ ft., } 8\text{th-26th March.} \]  

Iris red or dark red; bill black; feet brown, blue-grey, or slate-colour.

A fine series of this handsome Weaver was collected in all stages of plumage from the quite young bird to the fully adult. Descriptions of some of these plumages will
ZOOLOGICAL RESULTS OF THE RUWENZORI EXPEDITION.

be found in Captain Shelley's work, but they require modification, being partly based on assumption.

Seven adult males have the entire head and throat black, the latter bordered by a wide chestnut area.

Six adult females have the chin and upper part of the throat black and the lower part of the throat deep chestnut, like the surrounding area.

Two skins marked $\sigma$, one in the Jackson Collection and the other (No. 117) procured by Mr. Dent, have the throat like that of the adult females described above, the black feathers not extending beyond the upper part of the throat. Mr. Dent notes that his specimen was "breeding;" and though it is difficult to believe that so careful a collector can have made a mistake, it seems probable that he has accidentally marked "$\sigma$" on the label where he meant to mark "$\varphi$.

An apparently fully adult female shot by Mr. Legge (no. 2244) has only the chin black, the whole throat being chestnut.

Five specimens (two males and three females) are in partially immature plumage, with the base of the under mandible whitish and with many of the feathers of the head and throat olive, like the back. The black feathers on the throat are confined to the upper part in males and females alike.

In a younger female the entire head and throat are olive-colour, the feathers of the upper chest being tinged with orange, indicating the position of the chestnut area.

In a still younger male the middle of the breast and belly is white tinged with buff and mixed with a few yellow feathers on the sides.

The nest found on the 23rd of January contained two eggs, of a long oval shape and devoid of gloss. The ground-colour is creamy-white thickly speckled with brick-red and with a few underlying spots of dull lavender-grey. They measure respectively .93 by .58 and .88 by .59.

[The Alien Weaver was found on Ruwenzori from an elevation of 5500 ft. up to 8500, frequenting both the forest and the more open country below. A nest found at an altitude of 6000 ft. was suspended from the end of a bough, about 10 ft. above the ground, and was composed almost entirely of the thin tendrils of creepers with a few fine strips from blades of grass.—R. B. W.]

Sitagra ocularia (Smith).


D. C.; 2036. G. L.]

c, d. $\sigma$ et $\varphi$ imm. Mubuku Valley, E. Ruwenzori, 5000-6000 ft., 3rd & 7th April.

[Nos. 2266, 2280. G. L.]


SITAGRA PELZELNI (Hartl.)

_Icteropsis pelzelni_ Jackson, _Ibis_, 1899, p. 610 (Entebbe); Hartert, Nov. Zool. vii. p. 40 (1900) (Lake Edward); Jackson, _Ibis_, 1906, p. 566 (Toro).


_a—c. f_. Mokia, S.E. Ruwenzori, 17th–28th June. [Nos. 1641, 1684, 1705. _D. C._]

_Adult male._ Iris dark hazel or pale yellow; bill black; feet dark mauve, dark grey, or brown.

These birds are in worn plumage and rather dull in colour, especially on the underparts.

[Pelzelni’s Slender-billed Weaver was only seen near the south end of Ruwenzori, where it was very rare.—_R. B. W._]

SITAGRA LUTEOLA (Licht.)


_Sitagra luteola_ Shelley, _B. Afr_. iv. p. 397 (1905); Jackson, _Ibis_, 1906, p. 565 [Toro].

_a, b, f_. 100 miles W. of Entebbe, 4000 ft., 6th Dec. [Nos. 3030, 3031. _R. B. W._]

_c. f_ imm. Mokia, S.E. Ruwenzori, 3400 ft., 9th May. [No. 3340. _R. B. W._]

The adult male in the present collection differs somewhat from all the adult male
specimens of *S. luteola* in the British Museum in having the black extending somewhat further back over the crown, about 3 mm. behind the posterior margin of the eye while the mantle and back have rather distinct dusky streaks. Specimens in the Jackson Collection from Toro agree with the Entebbe bird in the latter respect, but as regards the extent of black on the head they resemble typical *S. luteola*. It must be noted that all the specimens in the British Museum bearing dates were killed during the summer months between May and July, while both the birds from Entebbe in the present collection and those in the Jackson Collection from Toro were obtained in winter, in December and March respectively, so that the striped back may be, and probably is, characteristic of the winter plumage.

[Lichtenstein's Slender-billed Weaver was seen, very occasionally, on the eastern side of Ruwenzori below an altitude of 5500 ft., also at Entebbe.—R. B. W.]

**Ambyospiza melanotus** (Heugl.) (Plate XIX. figs. 15 & 16, eggs.)


*Ambyospiza melanotus* Jackson, Isis, 1906, p. 567 [Toro].


*e, f.* ♀. Mokia, S.E. Ruwenzori, 3400 ft., 16th June. [Nos. 466, 467. R. E. D.]

*g.* ♀ imm. Butagu Valley, W. Ruwenzori, 4000 ft., 28th July. [No. 2439. G. L.]

Adult. Iris dark brown; bill black (in the male); upper mandible olive, lower yellow (in the female); feet dark grey or black.

The male specimens have the head, neck, mantle, and chest very dark chestnut, darker than in the majority of specimens from Uganda and from the White Nile; one of Mr. Jackson’s specimens from Entebbe, Uganda, is, however, equally dark in colouring.

The birds procured at South-east Ruwenzori in May were breeding, and one female (No. 2382) is marked as having been shot off the nest.

Two clutches of eggs were procured on the 17th and 22nd of May. They are of a rather long oval form and slightly glossy. One set of three eggs has the ground-colour pale pinkish-white, spotted, especially towards the larger end, with maroon-red. The second set of two eggs has the ground-colour pale red, marked with darker spots of the same colour. They measure from 85 to 95 in. in length and from 58 to 6 in breadth.

[Only a few examples of Heuglin’s Grosbeak-Weaver were met with on the plains at the south-east of Ruwenzori, but on the west between Fort Beni and the foot of the mountains they were quite numerous. When flying they much resembled the Common Hawfinch. They frequented the tall reeds along the streams, but only such streams as
were among or near trees. The nest of this species is, I think, the most compact and beautiful built by any of the Weavers; it is attached to two tall reeds and is composed of very fine strips of grass or reed-leaf. Both birds take part in its construction, and a nest we had under observation took about fourteen days to complete.—*R. B. W.*]

*Spermospiza poliogenys* Grant. (Plate X. fig. 2, ♂.)

*Spermospiza poliogenys* Grant, Bull. B. O. C. xix. p. 32 (1906); id. Ibis, 1908, p. 278 [Kasongo, Upper Congo].

*a. ♂. 20 miles N. of Fort Beni, Semliki Valley, 3000 ft., 11th Aug. [No. 1775. D. C. *Type of the species.*]

The female is similar to the adult female of *S. guttata* (Vieill.), but the cheeks and sides of the face are dark grey like the crown; some of the feathers on each side of the breast are tipped with scarlet and form an indistinct patch.

Iris dark brown; bill red and black; feet dark brown. Total length 5·3 inches; wing 2·8; tail 2·0; tarsus 0·88.

A single adult female specimen was procured by Mr. Douglas Carruthers in the thick forest. A second less mature female example of the same species was procured by the same collector on the Upper Congo on the 7th February, during his return journey to the West Coast.

[A single specimen of the Grey-cheeked Weaver-Finch was obtained in the Eturi Forest between Fort Beni and Irunu.—*R. B. W.*]

*Pyrenestes ostrinus* (Vieill.).


Iris chocolate-colour; bill dark bluish-grey; feet light brown.

The size of the bill appears to vary greatly in the males of this species. In the present specimen it is moderately developed, while in two examples in the British Museum, from Gaboon and Tingasi respectively, it is very large and strong.

[Vieillot’s Notch-billed Weaver was occasionally seen in the E. Congo Forest.—R. B. W.*]

*Quelea quelea* (Linn.).

*Quelea quelea* Sharpe, Cat. Birds B. M. xiii. p. 257, pl. x. fig. 3 (1890); Shelley, B. Afr. iv. p. 111 (1905).

*Quelea intermedia* (Reich.); Sharpe, Cat. Birds B. M. xiii. p. 259, pl. x. fig. 4 (1890).


*Quelea sanguinirostris lathamii* Reich. t. c. p 110 (1904).
e–g. ♀. Mubuku Shelley, Neumann, Fort Molda, 1384.
f, i. ♂. Fort Beni, Semiliki Valley, 3000 ft., 22nd & 24th July. [Nos. 489, 495. R. E. D.]

**Adult male and female.** Iris varies from hazel to dark brown; eyelids red; bill coral-red; feet vary from rose or pink to yellowish-brown or brown.

Adult males (a–d) of the Black-fronted Dioch, all killed in March and some of them marked “breeding,” vary greatly in colour; in some the crown and chest are rosy, while in others these parts are sandy buff. Again, in some specimens there is a strongly-marked black band across the forehead, while in others it is narrow and ill-defined.

**Quelea cardinalis (Hartl.).**

*Quelea cardinalis* Reich. Vög. Afr. iii. p. 112 (1904); Shelley, B. Afr. iv. p. 119 (1905); Grant, Ibis, 1908, p. 270 [Lake Tanganyika].

a. [♂ imm.] 60 miles W. of Entebbe, 3700 ft., 29th Nov. [No. 3017. *R. B. W.*]

Iris dark brown; bill and feet brown.

[The Cardinal Dioch was only procured near Entebbe.—*R. B. W.*]

**Pyromelana ansorgei** Hartert.


d. ♂. Fort Beni, Semiliki Valley, 3000 ft., 22nd July. [No. 488. R. E. D.]

**Adult male.** Iris dark brown; bill and feet black.

**Immature male and female.** Iris dark brown; upper mandible black, lower brown, whitish towards the base; feet dark brown.

I have compared the adult male in the present collection with the type-specimen of *P. ansorgei* Hartert from Masindi, Unyoro, and also with the type of *P. xanthochlamys* Sharpe from Hoima, Unyoro (not Ruwenzori, as stated by Captain Shelley). There can be no doubt that all three specimens belong to the same species. Mr. Alexander also procured a specimen at Gudima, on the Kibali River. All the four specimens mentioned above are males in full breeding-plumage; the adult female is still unknown.
Prof. Neumann has shown that *Penthetria hartlaubi* Cab. and *Colius passer dubiosus* Neumann are males of this species in winter-plumage.

Three immature birds (a–e) procured in the Mubuku Valley are almost certainly referable to the present species; they have black under wing-coverts as in the adult male and generally resemble that bird, especially as regards the size and shape of the bill.

The immature female may be described as follows:

Top of the head and upperparts black, each feather margined on the sides with sandy-buff, the margins being narrowest on the feathers of the forehead; superciliary stripe and sides of the neck mostly buff; cheeks mottled black and buff; underparts buff, whitish on the middle of the belly, the chest and sides of the breast being darkest, each feather with a small subterminal triangular black spot at the extremity; upper wing-coverts, quills, and tail-feathers black, margined with sandy-buff; under wing-coverts black: wing 2'8 inches; tail 2'0.

The immature male resembles the above, but is somewhat larger and the chest is marked with brighter yellowish-buff: wing 3'0 inches; tail 2'15.

[A few examples of Ansorge’s Bishop-bird were seen near Fort Beni in the Semliki Valley. The male procured was breeding.—*R. B. W.*]

**Pyromelana flammiceps** (Swains.).


Iris dark brown; bill black; feet flesh-colour.

This specimen of the Fire-crowned Bishop-bird is in worn breeding-dress, and has a few feathers of the winter-plumage beginning to make their appearance on the throat. It is an interesting specimen, having a distinct black band 3 mm. in width above the base of the culmen.

There is a perfectly similar specimen in the British Museum procured by Sir H. H. Johnston at Nandi; and out of four specimens sent by Emin from Tingasi, two have a well-marked narrow black band across the forehead, one has a narrow line of black feathers, while the fourth has the forehead orange-scarlet to the base of the culmen.

I have examined a large series of males in breeding-plumage and make the following notes:

13 adult males from Sierra Leone. Mostly with a single row of black feathers at the base of the culmen; the remaining specimens have the forehead orange-scarlet to the base of the culmen.

8 " " Gold Coast. As above.
2 adult males from Niger district. With a narrow line of black feathers.
2  ",
2  ",
1  ",
8  ",
1  ",
1  ",
1  ",
2  ",
4  ",
1  ",
1  ",

It is thus evident that the black band across the forehead, when present, is most developed in birds from Equatorial Africa, but since specimens both with and without a black band occur in the same locality, it is obviously a character of little importance.

**Pyromelana nigrifrons** Böhm.


*Pyromelana sundevalli* Shelley (nee Bonap.), B. Afr. iv. p. 98 (1905); Grant, Ibis, 1908, p. 268 [Lake Tanganyika and Kasongo].

a. ♂ imm. 120 miles W. of Entebbe, 4000 ft., 8th Dec. [No. 39. R. E. D.]


d. Adult male. Iris dark hazel or dark brown; bill black; feet brown or light brown.
Adult female. Iris dark brown; bill and feet brown.

In male specimens in breeding-plumage the amount of black on the chin varies greatly; in some specimens there is only a trace of it, while in others the whole chin is conspicuously black. In examples procured from S.E. Ruwenzori the mantle varies from uniform cinnamon slightly washed with red to cinnamon washed with scarlet and laterally streaked with black.

It would appear that the specimens procured by Doggett and referred by me to *P. wertheri* Reichenow (cf. ‘Ibis,’ 1905, p. 207) are merely paler-backed forms of
P. nigrifrons. The true P. wertheri from the Wembere Steppes is said to have the black on the forehead *extending backwards to the crown*, as in the South African P. oryx, whereas both the specimens of P. nigrifrons from Ruwenzori and the birds referred by me to P. wertheri have the black on the forehead less developed and not extending beyond the eye.

[The Red Bishop-bird was not uncommon among the reeds along the streams intersecting the plains at the south end of Ruwenzori.—R. B. W.]

**Pyromelana franciscana** (Isert).


Iris dark brown; bill black; feet flesh-colour.

A fine adult male of the Red-throated Bishop-bird in the present collection has a wing measuring 61 mm. Dr. Hartert has separated the form found at Lake Stephanie under the name *P. f. pusilla*, on account of its supposed smaller size (wing 60 to 63 mm.), but I agree with Dr. Sharpe and others in regarding it as synonymous with *P. franciscana*.

[A few were seen on the Semliki River near the north end of Ruwenzori. The male procured was breeding.—*R. B. W.*]

**Pyromelana xanthomelas** (Rüpp.).


*Pyromelana xanthomelas* Shelley, *B. Afr.* iv. p. 76 (1905); Grant, *Ibis*, 1908, p. 268

[Mufumbiro, Lakes Kivu and Tanganyika].


The male example of Rüppell's Black-and-Yellow Bishop-bird killed in October is beginning to assume winter-plumage, while that killed in March is in full winter-plumage. Both are rather smaller than Abyssinian specimens and have a wing measuring 2.85 inches (72 mm.).

[A few were seen on the north-east slopes of Ruwenzori, below 6000 ft., but the species was very uncommon.—*R. B. W.*]

**Pyromelana crassirostris** Grant. (Plate X. fig. 3, [♀].)


*a*. ♀. North end of Ruwenzori, 3500 ft., 19th Aug. [No. 2452. *G. L. Type of the species.*]
This species is most nearly allied to *P. phenicomera* G. R. Gray, but is smaller; the bill is shorter, stouter, and deeper, its length being 16 mm., and the depth of the upper mandible at the gape 7 mm. (whereas in *P. phenicomera* it measures only 5½ mm.); the yellow shoulder-patch is much less extensive and is not continued over the scapulars. Iris dark brown; bill dusky; feet brown. Total length ca. 5½ inches; wing 2:55; tail 1:95; tarsus 0:82.

[The only known example of the Thick-billed Bishop-bird was procured by Mr. Gerald Legge on the northern slopes of Ruwenzori, below 4000 ft.—R. B. W.]

**Urobrachya phoenicea** (Heugl.).

*Urobrachya phoenicea* Reich. Vög. Afr. iii. p. 130 (1904); Shelley, B. Afr. iv. p. 65 (1905); Grant, Ibis, 1908, p. 269 (Mufumbiro).

_\textit{a}–\textit{e}.\ \sigma\ \textit{et}\ \sigma\ \textit{imm.}\ 120\ \text{miles}\ \text{W.}\ \text{of}\ \text{Entebbe,}\ 4000\ \text{ft.},\ 8\text{th}\ &\ 9\text{th}\ \text{Dec.}\ [\text{Nos.}\ \text{3041,}\ \text{3042,}\ \text{3043,}\ \text{3049,}\ \text{3050.}\ \text{R. B. W.}]\]

_\textit{f}.\ \sigma\.\ \text{Mpanga}\ \text{Forest,}\ \text{Fort}\ \text{Portal,}\ 5000\ \text{ft.},\ 16\text{th}\ \text{Sept.}\ [\text{No.}\ \text{3575.}\ \text{R. B. W.}]\]

_\textit{g}.\ \sigma\.\ \text{Mokia,}\ \text{S.E.}\ \text{Ruwenzori,}\ 3400\ \text{ft.},\ 17\text{th}\ \text{May.}\ [\text{No.}\ \text{1577.}\ \text{D. C.}]\]

_\textit{h}.\ \sigma\.\ \text{Mokia,}\ \text{S.E.}\ \text{Ruwenzori,}\ 3400\ \text{ft.},\ 15\text{th}\ \text{June.}\ [\text{No.}\ \text{2402.}\ \text{G. L.}]\]

_\textit{i}.\ \sigma\.\ \text{Fort}\ \text{Beni,}\ \text{Semiliki}\ \text{Valley,}\ 3000\ \text{ft.},\ 20\text{th}\ \text{July.}\ [\text{No.}\ \text{483.}\ \text{R. E. D.}]\]

_\textit{k}.\ \textit{l}.\ \sigma\.\ \textit{\&}\ \textit{\&}.\ \text{60}\ \text{miles}\ \text{N.}\ \text{of}\ \text{Fort}\ \text{Beni,}\ 3500\ \text{ft.},\ 16\text{th}\ \text{Aug.}\ [\text{Nos.}\ \text{1787,}\ \text{1788.}\ \text{D. C.}]\]

**Adult male.** Iris dark brown or dark hazel; bill light grey or bluish-white; feet dark brown or black.

**Adult female.** Iris dark brown or dark hazel; bill brown or horn-colour; feet brown or light brown.

The adult males shot in July, August, and September are in full breeding-plumage. Three of the adult birds collected on the 8th and 9th of December have nearly assumed their winter dress, while the fourth is still in the black breeding-plumage.

The two females (Nos. 1577 and 2402) have the lesser wing-coverts conspicuously margined with dark orange, forming a well-marked patch on the shoulder; No. 1788 has the lesser wing-coverts rather inconspicuously margined with yellowish. All three birds appear to be perfectly adult, and No. 1577 is marked “breeding” by Mr. D. Carruthers. The pale-shouldered specimen (No. 1788) was one of a pair (of which the male, No. 1787, is in perfect breeding-plumage) and is in worn plumage. Possibly the orange shoulder-patch is not assumed till after the second moult.

[Heuglin's Fan-tailed Whydah was seen throughout the journey from Victoria Nyanza to the Congo Forest, but was not met with on Ruwenzori above an altitude of 5000 ft.—R. B. W.]

**Coliuspasser ardens** (Bodd.).

*Penthetria ardens* Jackson, Ibis, 1899, p. 598 [Entebbe]; 1906, p. 560 [Toro].


b. Imm. 120 miles W. of Entebbe, 4000 ft., 8th Dec.  [No. 40. R. E. D.]


m, n. ♀. Mokia, S.E. Ruwenzori, 3400–4000 ft., 8th May & 22nd June.  
[Nos. 1622, 1668. D. C.]

Adult male (in breeding-dress). Iris dark brown or dark hazel; bill and feet black.

Adult female. Iris dark hazel; bill and feet brown.

Young males and females. Iris brown, dark brown, or dark hazel; bill and feet brown.

[The Red-collared Whydah was not found on Ruwenzori above 5000 ft.—R. B. W.]

Var. Coliuspasser concolor (Cass.).


Iris dark brown; bill black; feet dark brown.

There can be very little doubt that the Black Whydah is merely a melanistic form of C. ardens in which the scarlet or orange band across the chest, characteristic of the typical form, is wanting. There are four male specimens of so-called C. concolor in the British Museum and two in the Jackson Collection. Of these, four show no trace of a pectoral band, but in two specimens it is very faintly indicated. These intermediate forms are considered by Captain Shelley to be hybrids between C. ardens and C. concolor, but the fact that the black form is found in widely scattered localities along with typical specimens of C. ardens seems to indicate that it is merely a colour-variety of that bird.

[Cassin's Black Whydah was only met with on the plains below the mountains.—R. B. W.]

Coliuspasser soror (Reichenow).


a. ♀. 120 miles W. of Entebbe, 4000 ft., 9th Dec.  [No. 44. R. E. D.]

Iris dark brown; bill and feet black.

A male of Reichenow’s Yellow-shouldered Whydah assuming winter dress. The species was not met with on Ruwenzori.

* Marked ♀ by Mr. Legge.
COLIUSPASER EQUES (Hartl.).


b, c. ♂ ♀. " " 1st & 22nd May. [No. 2312, 2384. G. L.]

d. ♀ imm. " " 12th June. [No. 1624. D. C.]

Adult male. Iris dark brown or dark hazel; bill blue or blue-grey; feet black.

Adult female. Iris, bill, and feet brown.

The specimen (No. 2312) killed on the 1st of May, and said to have been a breeding-bird, still retains some of the feathers of the winter-plumage.

[Speke’s White-winged Whydah was plentiful on the plains around the south end of Ruwenzori, but was not met with on the mountains.—R. B. W.]

SPERMESTES CUCULLATUS Swains.


a. ♂. 80 miles W. of Entebbe, 3500 ft., 1st Dec. [No. 1024. D. C.]


Adult male and female. Iris dark brown or dark hazel; upper mandibles black, lower blue-grey; feet dark brown or blackish.

[Swainson’s Bronze Mannikin was found on Ruwenzori up to an altitude of 7000 ft. It was not met with there during the months of December and January, but between February and April, when the millet was ripe, it appeared in great numbers, usually in small flocks of from ten to twenty individuals.—R. B. W.]

SPERMESTES POENSIS (Fraser).


Spermestes poensis stigmatophora Reich. t. c. p. 153 (1904).


Adult male and female. Iris dark brown or dark hazel; bill blue-grey or slate-colour; feet dark brown or black.

According to Dr. Reichenow, these birds should be separated from typical *S. poensis* under the name *S. p. stigmatophora* Reichenow, but I agree with Captain Shelley and consider that it is not possible to recognize more than one form. Specimens from Fernando Po, Cameroon, &c. are precisely similar to those collected by the present expedition.

[The Southern Black-and-White Mannikin was met with on Ruwenzori up to an altitude of about 6500 ft., where the forest commences. It was not seen during the months of December and January, but was numerous from February till April.—R. B. W.]

**Pytelia bellii** Grant. (Plate XI, fig. 4, ♂.)

*Pytilia melba* Reich. Vög. Afr. iii. p. 163 (1904) [part.].

*Pytilia melba* Shelley, B. Afr. iv. p. 273 (1905) [part.].


The male of this species differs from the male of *P. melba* (Linn.), which it resembles in the darker markings of the breast and belly, in having the grey of the cheek extending beneath the eye to the lores; and the red of the throat continued over the greater part of the chest, of which only the base is yellow. Iris reddish-brown; bill red; feet brown. Total length ca. 4·8 inches; wing 2·2; tail 1·95; tarsus 0·7.

The female has the breast darker grey than in the female of *P. melba* and the markings of the underparts, especially on the sides and flanks, darker. Iris hazel or

* Types of the species.
reddish-brown; upper mandible black, lower pink, reddish-brown or dull red; feet brown. Total length ca. 46 inches; wing 2·25; tail 1·9; tarsus 0·65.

The under tail-coverts in the ten adult males of *P. bellii* display great variation, and we find every intermediate stage between birds in which these feathers are uniform buff and those in which they are strongly marked with transverse bars of black. Mr. D. Carruthers procured a male of this form from the north-western shore of Lake Tanganyika, 3000 ft., in which the bars on the under tail-coverts are fairly well marked. There are also male examples in Mr. Jackson's collection from Kibwesi, in Ukamba, and Lake Albert, and there is a specimen in the British Museum procured by Emin at Kibiro on Lake Albert.

This species is easily distinguished from the two nearly allied forms, viz.: *P. melba* (Linn.) from South Africa, and *P. soudanensis* Sharpe (= *P. affinis* Elliot), which ranges from the White Nile to Lado and through Somaliland as far south as Lamu. It is more distantly related to *P. jessei* Shelley, which inhabits Northern Abyssinia, and to *P. citerior* Strickl., which ranges from the White Nile into Senegambia.

As the key given by Captain Shelley [cf. Bull. B. O. C. xiii. p. 76 (1903)] for that section of the genus *Pytelia* which includes *P. melba* and its nearest allies does not seem satisfactory and does not include *P. bellii*, I append the following:

1. Chest orange-yellow; some red on the head.
   a. Feathers of the upper breast blackish, conspicuously marked with twin-spots of white; upper tail-coverts dull crimson; lower part of the chest dull orange-yellow.
   a'. Scarlet of throat not extending over the chest.
   a". Sides and flanks more or less ocellated with white like the breast, and not conspicuously barred; under tail-coverts without transverse bars
   b. Sides and flanks conspicuously and widely barred with black and white; under tail-coverts with indistinct dusky bars
   b'. Scarlet of throat extending over the greater part of the chest, only the base of which is dull orange-yellow
   b". Feathers of the upper breast with narrow dark markings forming either cross-bars or imperfect ocelli; upper tail-coverts bright scarlet; chest bright orange-yellow.
   c. Feathers of the breast and flanks with narrow black bars
   c'. Feathers of the breast and flanks more or less ocellated

*A good many examples of Bell's *Pytelia* were met with in the acacia-forest on the plains around the south end of Ruwenzori. A nest was found placed in a low acacia-bush about 18 inches from the ground. It was domed and composed*
of fine grass and the down of some flower; the entrance was a small hole on one side close to the top. Unfortunately one of the birds was shot before any eggs had been laid.—R. B. W.]

**Nigrina fusconota** Fraser.


*a. ♀. 10 miles N.W. of Fort Beni, Semliki Valley, 3000 ft., 10th Aug. [No. 500. R. E. D.]*

Iris dark brown; bill and feet black.

This bird, which was shot in a forest-clearing, was breeding. It has the underparts somewhat greyer than in most of the specimens in the British Museum from Fernando Po, Cameroon, &c., but one male specimen from Cameroon is similar in this respect. As regards the colour of the upperparts, the back is of a rather darker shade of brown than is to be found in any of the birds before us.

**Nigrina luteifrons** Verreaux.

*Nigrina luteifrons* Reich, Vög. Afr. iii. p. 168 (1904) [part., nec Fernando Po]; Shelley, B. Afr. iv. p. 146 (1905) [part.].


Iris light brown; bill black; feet light brown.

This specimen agrees with typical male examples from Gaboon, Cameroon, &c., but is distinctly smaller, especially as regards the bill, than male birds collected by Mr. E. Seimund at Fernando Po. These latter have the golden-buff colour on the forehead brighter and extending further back over the crown, and the wing longer, while they are altogether somewhat larger birds. I have named this insular form *N. alexanderi*, after Mr. Boyd Alexander, who obtained examples of it during his expedition to Fernando Po in 1902.

The species has been described as follows:—

**Nigrina alexanderi** Grant.

*Nigrina luteifrons* Alexander (nec Verreaux), Ibis, 1903, p. 350.

*Nigrina alexanderi* Grant, Bull. B. O. C. xxi. p. 16 (1907).

**Adult male.** Similar to *N. luteifrons*, but larger and with a longer, stouter bill; the golden-buff on the forehead extending backwards over the crown to behind the eyes. Iris black; bill black; legs and feet flesh-colour. Total length 4·4 inches; culmen 0·33–0·35; wing 2·3–2·4; tail 1·6; tarsus 0·6.

**Adult female.** Similar to the female of *N. luteifrons*, but rather larger. Wing 2·3 inches.
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The following is a comparative table of measurements:

<table>
<thead>
<tr>
<th>Sex</th>
<th>Location</th>
<th>Culmen from nasal opening</th>
<th>Wing, in.</th>
</tr>
</thead>
<tbody>
<tr>
<td>♂</td>
<td>Near Mawambi, Congo Forest</td>
<td>0.26</td>
<td>2.3</td>
</tr>
<tr>
<td>♂</td>
<td>Gaboon (Verreaux)</td>
<td>0.28</td>
<td>2.3</td>
</tr>
<tr>
<td>♂</td>
<td>(Du Chaillu)</td>
<td>0.3</td>
<td>2.3</td>
</tr>
<tr>
<td>♂</td>
<td>(W. A. Forbes)</td>
<td>0.26</td>
<td>2.3</td>
</tr>
<tr>
<td>♂</td>
<td>Efuleu, Cameroon (G. L. Bates)</td>
<td>0.3</td>
<td>2.35</td>
</tr>
<tr>
<td>♂</td>
<td>Cameroon (Crossley)</td>
<td>0.26</td>
<td>2.3</td>
</tr>
<tr>
<td>♂</td>
<td>Fish Town, Fernando Po (E. Seimund)</td>
<td>0.35</td>
<td>2.35</td>
</tr>
<tr>
<td>♂</td>
<td></td>
<td>0.35</td>
<td>2.4</td>
</tr>
<tr>
<td>♂</td>
<td>Santa Isabel</td>
<td>0.33</td>
<td>2.35</td>
</tr>
<tr>
<td>♂</td>
<td></td>
<td>0.35</td>
<td>2.35</td>
</tr>
<tr>
<td>♂</td>
<td>Santa Isabel, Fernando Po (E. Seimund)</td>
<td>0.33</td>
<td>2.3</td>
</tr>
<tr>
<td>♂</td>
<td></td>
<td>0.31</td>
<td>2.35</td>
</tr>
</tbody>
</table>

[A single example of the Pale-fronted Negro-Finch was obtained in a clearing in the Congo Forest near Mawambi.—R. B. W.]

NIGRITA CANICAPILLA (Strickl.).


Iris orange; bill and feet black.

The most easterly localities hitherto recorded for Strickland’s Negro-Finch are the Aruwimi River (Jameson) and Kibonge (Bohndorff), both about 350 miles to the west of Fort Beni.

The male from Fort Beni, though somewhat smaller than typical examples of _N. canicapilla_ from Fernando Po, especially as regards the size of the bill, does not appear to be separable from them. The wing measures 2.55 and the tail 1.8 inches.

NIGRITA SCHISTACEA Sharpe.


_Nigrita diabolica_ Jackson (nee Reich. & Neumann), Ibis, 1906, p. 562 [Toro; Ruwenzori].

a. ♂. 40 miles W. of Entebbe, 3500 ft., 27th Nov. [No. 11. R. E. D.]


Iris orange, light brown, or dark hazel; bill black; feet dark brown or black.

Captain Shelley is no doubt correct in assuming that *N. sparsimingu/tata* Reichenow is synonymous with the present species.

Immature examples have the whole of the upperparts uniform dark grey; subsequently the black on the forehead is assumed, then the grey on the rump, and the white band bordering the black forehead and sides of the head, as well as the white spots on the lesser and median wing-coverts, make their appearance.

[Jackson’s Negro-Finch was met with here and there throughout the journey, from Victoria Nyanza to Ruwenzori, where it was found up to an altitude of 7000 ft.—R. B. W.]

**Nesocharis ansorgei** (Hartert). (Plate XI. figs. 1, ♂; 2, ♀.)


*Chlorestrilda ansorgei* Shelley, B. Afr. iv. p. 177 (1905).

*Chlorestrilda capistrata* Shelley, t. c. p. 177 [part., Meswa and Baguera (Emin)].


A single male example of this rare and very beautiful little Waxbill was procured by Mr. Dent. I have compared it with the type-specimen, which was obtained by Dr. Ansorge on the Luimi River in Toro, and which has been sent me by Mr. Walter Rothschild for comparison.

I quite agree with Capt. Shelley that the present species cannot be placed in either of the genera *Pytelia* or *Cryptospiza*, both on account of its Bullfinch-like bill and for other reasons. He therefore created the genus *Chlorestrilda*, making *C. ansorgei* the type, but he overlooked the fact that the present species was obviously co-generic with *Nesocharis shelleyi* Alexander, a highland species from Fernando Po [cf. Bull. B. O. C. xiii. p. 48 (1903)], and with *N. capistrata* (Hartl.) [= *N. sharpii* (Nicholson)], which ranges from Senegambia to Dahomey.

The type-specimen of *N. ansorgei*, a male in very poor condition, was described by Dr. Hartert as having the “sides of the chest golden-olive,” but, as is shown by the beautifully prepared skin in the present collection, this colour extends across the entire chest in a wide band.

Two adult males and a female were also procured by Mr. Jackson’s collectors in the Kibera Forest, Toro, where the species was said to be plentiful. The female, which is figured on Plate XI. fig. 2, differs from the male in having the chest grey
like the rest of the underparts. It closely resembles the type—also a female—of *N. shelleyi* Alexander, but is much larger and has a much stronger bill.

<table>
<thead>
<tr>
<th><em>N. ansorgei</em> (Hartet.)</th>
<th><em>N. shelleyi</em> Alexander.</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>a-d.</em> 2 (including the type) Wing . . . 2-0</td>
<td><em>a.</em> ? (type of the) Wing . . . 1-7</td>
</tr>
<tr>
<td>of the species); <em>e.</em> ?. ? Tail . . . 1-6</td>
<td>? Tail . . . 1-0</td>
</tr>
</tbody>
</table>

[The only example of Ansorge's Olive-backed Waxbill met with by the Expedition was procured in the Mpanga Forest, to the east of Ruwenzori. It was shot by Mr. R. E. Dent in the top of a tall tree.—*R. B. W.*]

**Cryptospiza ocularis** Sharpe.


Adult male and female. Iris dark brown or dark hazel; bill black; feet brown or dark brown.

As already pointed out, this species has been united with _C. reichenowi_ Hartlaub by Dr. Reichenow, but it is really a distinct form.

[Sharpe's Crimson-wing was met with on Ruwenzori at an altitude of between 6000 and 7000 ft., and, like most of these small Weaver-Finches, frequents the rough country below the forest-line, especially old sites of cultivation and crops of millet. This species was never seen in large flocks as was the case with _Spermestes cucullatus_ and _N. poensis._—*R. B. W.*]

**Cryptospiza salvadorii** Reichenow. (Plate XI. fig. 3, d.)


297 feet Kombi, Reich. from Shelley, d
This Mubuku Jackson, 2
Butagu Chiradzulu, eylid
bill apparently lla
puzzling. The three
C. australis as
C. australis is an
from Nyasaland, although Dr. Reichenow
having included the latter under the present heading.

C. australis is an altogether much darker bird than C. salvadorii.
The British Museum possesses six examples of C. australis, of which three, though
apparently fully adult, differ somewhat from one another in plumage and are somewhat
puzzling. The three adult examples are as follows:—
a. [Sex not ascertained.] Milanji Plateau, 6000 ft., 2nd Nov.
b. c. ♀. Chiradzulu, July. (Specimen "b" is the type of the species.)
These have the bill entirely black and the underparts brown, tinged with olive.
Specimen "a" has some of the feathers across the upper mantle tipped with dull
crimson, forming an irregular band.
Specimen "c" has a number of small dull crimson feathers about the base of
the bill.

Without additional material it is impossible to ascertain the cause of these differences,
as all three birds appear to be fully adult.
The three remaining examples are no doubt immature:—
d. ♀. Kombi, Masuka range, 7000 ft., July.
e. f. ♂ ♀. Chiradzulu, June.
In "d" the bill is black as in the adult; in "e" and "f" the base of the upper
mandible is brownish and the basal part of the lower mandible pale yellowish-horn
colour.

All three immature specimens have the underparts paler than in the adults, the
brown plumage being largely mixed with olive.
Specimens of C. salvadorii from Ruwenzori agree perfectly with the birds procured
by Doherty on the Kikuyu Escarpment.
[Salvadori's Crimson-wing was found on Ruwenzori at an altitude of between
7000 and 8500 ft. This species is very similar, both in habits and appearance, to
C. ocularis, but is less numerous and found at rather higher altitudes. It was seen on
some of the open ferny ridges among the forest at 8500 ft.—R. B. W.]

Cryptospiza Jacksoni Sharpe.

(1904); Shelley, B. Afr. iv. p. 280, pl. xxxv. fig. 2 (1905); Jackson, Ibis, 1906, p. 563.
a—d. ♀. Mubuku Valley, E. Ruwenzori, 6000 ft., 28th—30th Dec. [Nos. 49, 50,
56. R. E. D.; 2038. G. L.]

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Iris dark brown or dark hazel; bill and feet black.

The female of Jackson's Crimson-wing has not previously been described, but there is a series of ten adult males and seven adult females in the present collection, which shows that the latter differ in coloration from the former in the following particulars:

**Males.**

Dark crimson of the crown extending nearly to the occiput, only the middle feathers of the hind crown being grey. Sides of the head dark crimson and extending in a large patch behind the eye on to the sides of the neck. Grey band across the hind-neck more or less interrupted by the dark crimson sides of the head.

**Females.**

Hind part of the crown with the sides crimson, and the whole of the middle part grey like the hind-neck. Sides of the head bright crimson and restricted to a large patch surrounding the eye, not extending on to the sides of the neck. Grey band across the hind-neck wider and not interrupted.

An immature male differs from the adult in having the head and neck entirely grey without any trace of crimson. The crimson of the back, rump, upper tail-coverts, and flanks is duller in tint, and the coloured tips of the feathers are much narrower, so that their grey bases are visible and produce a mottled appearance.

[This species was met with on Ruwenzori at an altitude of between 6000 and 8500 ft. It appeared to be a semi-forest bird, and, though it frequented the adjacent millet-crops and rough grass-country, on being disturbed usually disappeared into the forest. It was often met with among the undergrowth, in the darkest parts of the forest, far from the outskirts.—R. B. W.]

**Cryptospiza shelleyi** Sharpe.

*Cryptospiza shelleyi* Sharpe, Bull. B. O. C. xiii. p. 21 (1902) [Ruwenzori]; Shelley, B. Afr. iv. p. 280, pl. xxxv. fig. 3 (1905); Jackson, Ibis, 1906, p. 563.

The type of this species was presented to the British Museum by Mr. F. J. Jackson. A single adult male example was procured by Mr. Geoffrey Archer on the 22nd of
February, 1902, and is said to have been obtained on Ruwenzori, but the exact locality is not recorded. It was not met with by the members of the Expedition.

**Estrilda minor** (Cab.).

*Estrilda astrild minor* Reich. Vög. Afr. iii. p. 180 (1904) [part.].

*Estrilda minor* Shelley, B. Afr. iv. p. 198 (1905); Jackson, Ibis, 1906, p. 564 [Toro]; Grant, Ibis, 1908, p. 275 [Mubumbiro; N. of Lake Tanganyika].


h, i. ♀ ♀. Mokia, S.E. Ruwenzori. 3400 ft., 14th May. [Nos. 1556, 1557. D. C.]

**Adult male and female.** Iris hazel, dark chestnut, or dark brown; bill red; feet varying from brown to blackish.

[The Lesser Waxbill was not met with on Ruwenzori above an altitude of 5000 ft., but was not uncommon on the dry plains round the south end of the range.—R. B. W.]

**Estrilda paludicola** Heugl.


a, b. ♂ ♀. 60 miles N. of Fort Beni, Semiliki Valley, 3500 ft., 16th Aug. [Nos. 1789, 1790. D. C.]

Iris and bill red; feet dark brown.

The pair of birds obtained by Mr. Carruthers to the north of Fort Beni are undoubtedly referable to Heuglin's Pale Waxbill, first described from the Gazelle River. The three birds procured by Mr. F. J. Jackson's collectors in Toro and referred to the present species by Captain Shelley in his work on 'The Birds of Africa' have been incorrectly identified, and are really referable to *E. roseicrissa* Reichenow, having the characteristic umber-brown crown, of the same colour as the back.

I have seen a fairly large series of examples of both the present species and *E. roseicrissa*, including nine specimens of the former from the Tring Museum. From these it is evident that the rosy flanks are equally characteristic of both species, and are probably due partly to age and partly to season.

Immature birds of this species are apparently hardly to be distinguished from immature specimens of *E. roseicrissa*, the crown being of much the same brown colour as the back.
The localities from which undoubted specimens of *E. paludicola* have been examined are as follows:—Lado, Tingasi, 60 miles north of Fort Beni, Semliki Valley, Unyoro, Entebbe, and Kavirondo. The species has also been obtained in Angola by Mr. C. H. Pemberton.

[Not uncommon in the clearings in the Eturi Forest between Fort Beni and Irumu.—*R. B. W.*]

**Estrilda roseicrissa** Reichenow.


**Adult male.** Iris reddish-brown; bill coral-red; feet black.

**Adult female.** Iris dark orange; bill pink; feet dark brown.

The specimens mentioned above are no doubt typical examples of Emin's Rosy-flanked Waxbill, the type of which was procured at Bukoba on the west shore of Victoria Nyanza. I have recently recorded and made notes on an adult pair sent by Mr. Carruthers from Lake Kivu.

The immature specimens in the present collection differ from the adults in having the bill dusky along the culmen and cutting-edges of the mandibles; the back uniform brown, without any trace of fine dusky cross-bars, and the pink wash on the flanks and vent barely indicated.

I have examined specimens of *E. roseicrissa* from Toro, Bukoba, S.E. Ruwenzori, and Lake Kivu.

[This little Waxbill was plentiful on the plains round the south end of Ruwenzori, but was not met with on the mountains.—*R. B. W.*]

**Estrilda nonnula** Hartl.


*a. ♂ 90 miles W. of Entebbe, 4000 ft., 4th Dec. [No. 3026. R. B. W.]


Adult male. Iris dark brown or dark hazel; bill black and red; feet black.

Curiously enough, the above series of seventeen specimens does not include a single adult female; the latter differs from the male in having the underparts greyer.

[Hartlaub's Black-crowned Waxbill was met with everywhere throughout the journey, except in the Eturi Forest. It was a common species on the mountains up to an elevation of 7000 ft., and in company with many other species of small Weaver-Finches was to be seen in thousands feeding upon the native crops of millet.—R. B. W.]

Sporoginthus subflavus (Vieill.).

Sporoginthus subflavus Grant, Ibis, 1908, p. 275 [Mufumbiro Volcanoes].

Adult male. Iris scarlet; bill scarlet; feet light brown.

Adult female. Iris bright orange; bill pink; feet pale flesh-colour.

The male (b) of the Northern Zebra-Waxbill is a very brilliantly coloured specimen, rather more so than any example in the British Museum.

[The species was met with only to the north-west of Ruwenzori, between the Semliki River and Irumu.—R. B. W.]

Lagonosticta ruberrima Reichenow.

Lagonosticta brunneiceps Shelley, B. Afr. iv. p. 258 (1905) [part.].
Lagonosticta ruberrima Jackson, Ibis, 1906, p. 564 [Toro]; Grant, Ibis, 1908, p. 271 [S.W. Uganda; Lake Edward; Lake Tanganyika].

Adult male and female. Iris hazel, reddish-brown, or chestnut; bill pink or dull pink; feet brown or dark brown.

This darker Equatorial form of the Brown-capped Fire-Finch (L. brunneiceps Sharpe) appears to be a fairly well-marked form. I have already referred to it in the paper on Mr. Douglas Carruthers's collection published in 'The Ibis,' as quoted above.
[A nest of this species was found on the plains at the south end of Ruwenzori (3400 ft.). It was placed in a low fence surrounding a native garden, and was composed of small sticks, roots, and grass. It was partially domed and, on the 10th of June, contained three pure white eggs, which measure respectively \(0.55 \times 0.44\), \(0.54 \times 0.45\), and \(0.53 \times 0.44\) in. This bird often builds its nest in the thatch of native huts.—R. B. W.]

**Lagonosticta rhodoparia** Hengst.


*Lagonosticta ugandae* Salt. Boll. Mus. Torino, xxi. no. 542, p. 2 (1906) [Fort Portal].

- Adult male. Iris dark brown; bill horn-blue or slate-blue; feet brown or black.
- Immature male. Iris dark brown; bill blue-grey, black at the tip; feet dark brown.

I have already fully stated my reasons ('Ibis,' 1908, p. 272) for differing entirely from the conclusions recently arrived at by Prof. Neumann, and for regarding all the birds described under the above names as synonymous with *L. rhodoparia* Hengst. In the colour of the upperparts the type of that species closely resembles examples in the British Museum collected by Lord Lovat in Southern Abyssinia, and also birds from the Gessima River, Likipla, B.E. Africa. Lord Lovat’s specimens were doubtfully referred to *L. congica* Sharpe (cf. 'Ibis,' 1908, p. 127), but whether the type of that species is merely an immature example of *L. rhodoparia* requires further confirmation.

[The Rosy Black-billed Fire-Finch was obtained near Entebbe, and two specimens were procured on the east side of Ruwenzori at an elevation of 6000 ft. in January and March. Possibly the species may be more numerous at some other season of the year.—R. B. W.]

**Neisna nyasae** Neumann. (Plate X. fig. 4, \(\delta\).)


*Neisna minimna* Grant, Bull. B. O. C. xvi. p. 117 (1906).

*Neisna nyasae* Grant, Ibis, 1908, p. 274 [Mufumbiro Volcanoes; Lake Kivu].

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This species is closely allied to *N. quartinia* (Bonap.), but somewhat smaller and has the middle of the belly more ochraceous. In one male example (No. 1349) there is a distinct dull orange-scarlet patch on the middle of the upper breast. In the deeper colour of the belly it approaches *N. kilimensis* (Sharpe), but differs in having the throat and breast pearl-grey instead of smoky grey.

Iris dark brown or dark hazel; upper mandible black, lower red; feet dark brown or black.

The immature bird differs from the adult in having the back uniform olive, without any trace of the narrow dusky cross-bars which characterise the adult. Bill black, or with some red on the lower mandible; in other respects it resembles the adult.

When I described this species as new under the name *N. minima*, I was not aware that it had already been named by Professor Neumann. The type of *N. nyansw*, procured by Emin Pasha at Bukoba, on the western shore of Victoria Nyanza, is in the Berlin Museum.

[The Nyanza Waxbill was plentiful in the Toro district, around Fort Portal, and on the east side of Ruwenzori up to an altitude of 7000 ft., but was not met with below 5000 ft., where the land slopes down towards Lake George. It was particularly fond of the seeds of a large thistle which grows on the mountains.—*B. W.*]

**VIDUA SERENA** (Linn.).


a. ♂ 30 miles W. of Entebbe, 3500 ft., 26th Nov. [No. 3007. B. W.]

b. ♂ 120 ″ , 4200 ft., 8th Dec. [No. 1049. D. C.]


o. ♀ juv. Butagu Valley, W. Ruwenzori, 4000 ft., 20th July. [No. 2442. G. L.]

* Types of *Neisna minima* Grant.
† No. 1590, marked as a female, is almost certainly an immature male; the middle tail-feathers are very long, 8 1/2 inches, while the remainder of the plumage is much like that of the female. As a rule, the black plumage of the head and back is assumed before the long tail-feathers appear.
**Adult male and female.** Iris dark brown or dark hazel; bill scarlet or red; feet black.

**Immature male.** Iris dark brown; bill and feet brown.

[The White-breasted Whydah was met with throughout the journey from Victoria Nyanza to the edge of the Eturi Forest. It was most amusing to watch the male of this species escorting his harem. In a very excited and fussy manner he would fly from bush to bush or hover around the females with a curious jumpy flight, all the time keeping up a continuous twitting and chirping.—R. B. W.]

**Family Fringillidae.**

**Passer diffusus Smith.**

*Passer diffusus* Shelley, B. Afr. iii. p. 251 (1902); Grant, Ibis, 1908, p. 279 [Upper Congo].
*Passer diffusus ugandae* and *P. d. occidentalis* Hartert, Nov. Zool. vii. p. 44 (1900).

**a.** ♂. 60 miles W. of Entebbe, 3700 ft., 29th Nov. [No. 3015. R. B. W.]

**b.** ♀. 130 miles W. of Entebbe, 4000 ft., 10th Dec. [No. 2028. G. L.]


**f.** ♂. Mokia, S.E. Ruwenzori, 3400 ft., 30th April. [No. 2306. G. L.]

**g, h.** ♂ et ♂ juv. Mokia, S.E. Ruwenzori, 3400 ft., 15th & 22nd May. [Nos. 329, 353. R. E. D.]

**i.** ♂. Fort Beni, Semiliki Valley, 3000 ft., 19th July. [No. 3504. R. B. W.]

**Adult.** Iris brown or reddish-brown; bill black; feet brown.

The specimens in the present collection lead me to believe that Captain Shelley may be right in uniting *P. swainsoni* (Rüpp.) (= *Passer griseus abyssinicus* Neum.) with *P. diffusus* Smith. Certainly the birds procured in the Mubuku Valley (specimens c-e) closely approach the Abyssinian form in the greyer colour of their underparts and in the absence of a distinct white patch on the throat. The male has the underparts grey as in *P. swainsoni*, but the two females have the belly white as in typical *P. diffusus*, and are only to be separated from that form by the colour of the throat, which, though somewhat paler than the cheeks, is not pure white. Thus we find that the birds from the Mubuku Valley (5000–7000 ft.) agree with *P. swainsoni* from the highlands of Abyssinia, while the specimens from Entebbe, S.E. Ruwenzori, and Fort Beni do not differ from ordinary white-throated examples of *P. diffusus*.

The specimen from Fort Beni appears to be an old bird and has the top of the
head very grey, most of the feathers being in worn plumage, in marked contrast to the reddish-brown mantle.

Dr. Reichenow thinks that the White-throated Sparrow should be known as *Passer grisea* (Vieill., 1817), and there can be no doubt that the description of "*Fringilla grisea*" agrees very well with examples of the present species; but as Vieillot states that the type came from the "United States," that it had a forked tail, and that its total length was only 4½ inches instead of 6 inches, I prefer to use the name given by Smith to the South African bird in 1836.

[The Common Grey-headed Sparrow was not found on Ruwenzori above an altitude of 7000 ft., and was rarely seen above 5000 ft.—*R. B. W.*]

**Serinus icterus.**


*Serinus icterus* Grant, Ibis, 1908, p. 280 [Lake Tanganyika].

*a, b, c et q imm.* 120 miles W. of Entebbe, 4000 ft., 8th Dec. [Nos. 37, 38. *R. E. D.*]

c, d. *q.* Mokia, S.E. Ruwenzori, 3400 ft., 26th April. [Nos. 3274, 3275. *R. B. W.*]


Adult male and female. Iris dark brown; bill brown or dark brown (two marked black, *R. E. D.*); feet brown or dark brown.

[The Common Yellow-fronted Canary was met with throughout the journey from Lake Victoria to Fort Beni in the Semliki Valley, but it was not met with on Ruwenzori above an altitude of 6000 ft.—*R. B. W.*]

**Serinus graueri** Hartert.

*Polioapiza striolata* Jackson (nee Räpp.), Ibis, 1906, p. 560 [Ruwenzori].


*Serinus graueri* Grant, Ibis, 1908, p. 280 [Mufumbiro Volcanoes].


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Adult male and female. Iris light brown or dark brown; bill brown or horn-colour; feet light or dark brown.

Dr. Hartert has separated the Streaked Seed-eater from Ruwenzori under this heading on account of its darker plumage. The upperparts are much darker brown than in S. striolatus (Rüpp.); the quills are margined on the outer web with olive-brown tinged with green, instead of yellowish-green; and the underparts are rufous-buff instead of whitish-buff.

The species was subsequently procured by Mr. Carruthers on the Mufumbiro Volcanoes.

Immature birds differ from the adult in having the underparts, especially the chin and throat, washed with yellowish, and the middle of the belly streaked with black like the rest of the underparts.

[Grauer's Streaked Seed-eater was found on Ruwenzori from an elevation of 5500 ft. up to 14,000 ft. It was most plentiful among the rough scrubby country just below the forest-line. A good many were also met with in the swampy valleys in the Tree-heath zone.—R. B. W.]

SERINUS KILIMENSIS (Richmond).

Crithagra kilimensis Richmond, Auk, xiv. p. 155 (1897) [Kilimanjaro].

Sericimus albifrons Shelley, B. Afr. iii. p. 210 [part.], pl. xxv. fig. 2 (1902).


Adult male and female. Iris hazel or dark brown; bill brown, lighter at the base of the lower mandible; feet brown or dark brown.

The type-specimen of S. albifrons Sharpe was obtained at Kikuyu and is characterised
by having a distinctly white forehead nearly 0.2 inch in width. Two other specimens from Roromo, Kikuyu, as well as one from Nairobi and one from the Waso Nanyuki River, Western Kenya, agree with the type in having the forehead white.

In four males the measurement of the wing varies from 3.15 to 3.4 inches, and in one female it is 3.2.

Fifteen adult specimens of *S. kilimensis*, from the Mau Escarpment, Eldoma Ravine, and Nandi, have the forehead entirely brownish-black, with scarcely any trace of white, and are on the whole rather larger than typical examples of *S. albibrums*. In eight males the wing-measurement varies from 3.35 to 3.7 inches, and in seven females it varies from 3.35 to 3.55.

Two male specimens in the Jackson Collection from Mount Elgon (one somewhat immature) have the belly conspicuously washed with rufous-buff, and in this respect nearly resemble birds from Nandi, which have the belly brighter than in birds from the Eldoma Ravine and Mau Escarpment. The wings of these two specimens measure respectively 3.6 and 3.55 inches.

At Toro and on Ruwenzori a rather smaller-billed race is met with, and, like the bird found on the Mau Escarpment, has scarcely a trace of white on the forehead.

It will thus be seen that the form which ranges from Ruwenzori to the Mau Escarpment is different from typical *S. albibrums* from Kikuyu, and should no doubt bear the name of *S. kilimensis* (Richmond), with which I have identified it.

The immature bird agrees with the description of the young of *S. albibrums* given by Captain Shelley, but the throat is almost uniform black, with barely a trace of the whitish cross-bars characteristic of the adult.

[The Western Brown Canary was met with on Ruwenzori from an altitude of 5500 feet up to 8500 feet; it was, however, a very rare bird, and was not met with anywhere else.—R. B. W.]

**Serinus sharpei** Neumann,

*S. sharpei* Neumann, J. f. O. 1900, p. 287; Reich. Vögel. Afr. iii. p. 266 (1904); Grant, Ibis, 1908, p. 280 [Mufumbiro Volcanoes].


*S. imberbis* (Cab.); Shelley, B. Afr. iii. p. 203 (1902).


d. ♂. Mokia, S.E. Ruwenzori, 3400 ft., 19th May. [No. 2369. G. L.]

Adult male and female. Iris dark brown or dark hazel; bill brown, olive-brown, or horn-colour; feet brown or dark brown.

*S. shelleyi* Neumann bears a much closer relationship to *S. sharpei* Neumann.
than the latter does to *S. sulphuratus* (Linn.). A series of specimens can be laid out showing that the largest-billed example of the South African bird with a wing of about 3·3 inches intergrades more or less completely with the small-billed *S. shelleyi* with a wing of about 3·0 inches. I have examined typical examples of *S. sulphuratus* from South and South-east Africa as far north as Macamac, near Lydenburg, in the Transvaal; of *S. sharpei* from Lakes Naivasha and Nakuru and Eldoma Ravine, all to the east of Victoria Nyanza, and from Melsetter in Northern Gazaland; and of *S. shelleyi* from Mount Elgon, Entebbe, Mpanga Forest, Ruwenzori, Mulema, Nyasaland, and Tete, on the Zambesi.

The type of *S. shelleyi* is said by Prof. Neumann [cf. Orn. Monatsb. xi. p. 184 (1903)] to be in the Berlin Museum, and to have come from Kafuro, Karagwe, to the west of Victoria Nyanza; but there is a specimen in the British Museum from Tete, procured by the Livingstone Expedition, which is marked in Prof. Neumann’s writing as “*Serinus shelleyi* Neum. typus.” This bird appears to be in rather abnormal plumage, having the dark markings on the head and upperparts nearly obsolete.

After examining all the material available I can only conclude that *S. sulphuratus* is barely separable from *S. sharpei*, and that *S. shelleyi* must be regarded as synonymous with the latter, or else as a very slightly smaller race. The comparative measurements of a number of specimens in which the sex has been properly ascertained is as follows:—

<table>
<thead>
<tr>
<th><em>Serinus sharpei</em></th>
<th><em>Serinus shelleyi</em></th>
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<tbody>
<tr>
<td>6 ♂ ⋅ wing 3·15—3·3 in.</td>
<td>7 ♂ ⋅ wing 2·9—3·05 in.</td>
</tr>
<tr>
<td>5 ♀ ⋅  &quot; 3·1—3·2 &quot;</td>
<td>3 ♀ ⋅  &quot; 2·85—2·95 &quot;</td>
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I may here remark that male examples of the large-billed form from Zululand differ considerably from Cape specimens, and have the green wash on the breast much reduced. They closely resemble *S. sharpei*, except as regards the size of the bill.

[A few examples of Sharpe’s Canary were seen in the acacia-country around the south end of Ruwenzori and again near Fort Portal, but they were rather uncommon.—R. R. W.]

**Chrysomitis frontalis** (Reichenow).


*Chrysomitis frontalis* Grant, Ibis, 1908, p. 279 [Mufumbiro Volcanoes].


Adult male. Iris brown, dark brown, or hazel; bill brownish-horn-colour; feet brown. The blackish streaks on the back seem to vary considerably with age. In what appears to be the oldest male (No. 1403), with the brightest olive-yellow back, they are much reduced, taking the form of narrow shaft-streaks; while in a second male (No. 3059), marked "breeding," the feathers of the upperparts are olive with black middles, producing a somewhat spotted appearance.

As the female of this species does not appear to have been described, I take this opportunity of characterizing it:—

Adult female. Differs from the female of C. citrinelloides (Rüpp.) in having the yellow band across the forehead and the yellow eyebrow-stripes well developed and the underparts uniform yellow. In both these respects it resembles the male of C. frontalis, but is not quite so brightly coloured below, while the narrow black frontal band, black sides of the face and chin of the latter are absent, the lores and cheeks being olive-green and the chin yellow.

Iris dark brown or hazel; bill brownish-horn, lighter on the lower mandible; feet brown or light brown.

Total length ca. 4·5 inches; culmen 0·55; wing 2·55; tail 1·8; tarsus 0·55.

The young female is much browner than the adult and has the plumage of the underparts soiled yellow, with the chest, upper breast, sides, and flanks streaked with dusky.

[Reichenow's Yellow-fronted Canary was plentiful on both the east and west sides of Ruwenzori up to an elevation of 7000 ft. It was also seen at Fort Beni.—R. B. W.]

**Emberiza flaviventeris** Steph. (Plate XIX. figs. 1 & 5, eggs.)


Adult male and female. Iris dark brown; bill brown or blackish, lower mandible paler; feet brown or light brown.

The male from S.E. Ruwenzori (No. 1635), killed on the 17th of June, is moult
and in rather an interesting stage of plumage, the mantle being nearly uniform light red; but among the worn plumage several new feathers of a darker chestnut colour margined on the sides with sandy-buff are making their appearance.

A young female (No. 2321) has the feathers of the mantle very distinctly streaked with black, more so than in the adult female; the feathers of the chest have dark brown shaft-streaks, and the white tips of the median wing-coverts are bisected by black shaft-streaks.

This species is readily distinguished from the allied *E. polioptera* (Salvad.) by having the feathers of the back uniform grey, while in the latter they have very distinct black middles.

The eggs of this species figured on the accompanying Plate form part of Mr. F. J. Jackson's collection.

[The Common Golden-breasted Bunting was met with only at the south end of Ruwenzori among the acacia-trees.—*R. B. W.*]

**Family Alaudidae.**

*Mirafra zomba* Grant.


*Adult male and female.* Iris brown or dark hazel; bill brown or black, lighter on the lower mandible; feet brown or flesh-colour.

This dark mountain-form allied to *M. fischeri* was originally described from specimens procured by Mr. A. Whyte on the plains of Zomba, and on the lower slopes of the Milanji Plateau at an elevation of 3000 ft. It is very interesting to find what is apparently exactly the same dark form occurring on the plains to the south-east of Ruwenzori at a similar elevation. Dr. Reichenow, who has apparently never examined specimens of *M. zomba*, has united it with *M. fischeri*; but there can be no doubt that it is a very distinct and easily recognized form, which takes the place of *M. fischeri* on the higher ground over at least a part of the range of the latter species.
[This little Lark was very numerous in the acacia-country on the plains around the south end of Ruwenzori, but was not seen on the mountains above an elevation of 4000 ft. While hovering in the air it makes a curious drumming noise with its wings.—R. B. W.]

**Miraphra tropicalis** Hartert.


*Miraphra africana* Shelley, B. Afr. iii. p. 51 (1902) [part.].


*l, m. ♂♀*. Mokia, S.E. Ruwenzori, 3400 ft., 4th June. [Nos. 424, 425. R. E. D.]

Adult male and female. Iris hazel; bill dusky horn-colour or brown, whitish on the lower mandible; feet brown or light brown.

I have compared the above-mentioned series of specimens with the type of *M. tropicalis* Hartert, from Bukoba on the west coast of Lake Victoria; they agree perfectly with one another and evidently represent a well-marked subspecies. Dr. Hartert has already pointed out that Captain Shelley was mistaken in supposing that *M. occidentalis* (Hartl.) from Gaboon is synonymous with *M. tropicalis*, and has shown that the former is in reality more nearly allied to the South African form *M. africana* [cf. Bull. B. O. C. xix. pp. 93 & 94 (1907)].

[Hartert’s Rufous-naped Lark was plentiful on the plains around the south end of Ruwenzori, but was not found on the mountains. It frequents the acacia-country, and is constantly to be seen perched on the top of some low bush uttering from time to time a long single note.—R. B. W.]

**Family Motacillidae.**

**Motacilla vidua** Sundev.


Adult male and female. Iris dark brown; bill and feet black.

[The African Pied Wagtail was met with throughout the journey, and occurred on Ruwenzori up to an elevation of 7000 ft. It was an extraordinarily tame and familiar bird, seeming to prefer the vicinity of habitations. At each base-camp formed by the
Expedition, a pair of these Wagtails built a nest in the roof of our house, almost as soon as it was finished.—R. B. W.]

Motacilla longicauda Rüpp.

Iris brown; bill black; feet slate-colour.
Neither of these specimens appear to be fully adult. In the male the third pair of tail-feathers have the greater part of the outer web and a broad band down the margin of the inner web black; the fourth pair have a black line down the middle third of the outer web, and the two outermost pairs are pure white. In the female (which has the tail-feathers in moult) the third pair have the outer web mostly black, but not black on the inner web, the fourth pair have a black line down the middle third of the outer web as in the male, and the two outermost pairs are pure white; moreover, the second pair of normally black tail-feathers (which are worn and apparently remains of the first plumage) are irregularly marked with white towards the tip.
[A pair of the Long-tailed Pied Wagtail were obtained in the Mpanga Forest, and a pair of Wagtails believed to be of the same species were seen on a stream in the Congo Forest. When flying up or down the streams in the forest they always kept close to the water, and their flight was straight and swift, more like that of a Kingfisher than a Wagtail.—R. B. W.]

Motacilla flava Linn.

Motacilla flava Shelley, B. Afr. ii. p. 286 (1900).
a. ♂ 40 miles W. of Entebbe, 3500 ft., 27th Nov. [No. 3011. R. B. W.]
e-g. ♀ ♀ imm. 120 miles W. of Entebbe, 4000 ft., 7th & 8th Dec. [Nos. 34, 35. R. E. D.; 2024. G. L.]
Adult male. Iris dark brown; bill dark brown; feet black or dark grey.
Some of the specimens have a good deal of olive-colour in the middle of the grey crown, and in that respect approach M. campestris Pall.
[A good many examples of the Common Yellow Wagtail were seen between
Entebbe and Ruwenzori and occasionally met with on the mountains up to an elevation of 6500 feet.—R. B. W.]

**Anthus pyrrhonotus** (Vieill.).


*a*, *b*. 60 miles W. of Entebbe, 3700 ft., 20th Nov. [Nos. 15, 16. R. E. D.]


k. ♀. 60 miles N. of Fort Beni, Semliki Valley, 3500 ft., 17th Aug. [No. 1791. D. C.]

Adult male and female. Iris dark brown; bill brown or blackish, lower mandible yellowish; feet flesh-colour or brown.

All these birds appear to be typical examples of *A. pyrrhonotus* (Vieill.). I am unable to distinguish the subspecies *A. gouldi* Fraser, the length of the hind claw being in my opinion too variable a character to place much reliance on. For instance, among the present series some specimens have the hind toe equal in length to the hind claw, while in others it is much shorter.

This Pipit was met with near Entebbe and on the plains round Ruwenzori, but it did not ascend the mountains. It has a habit of suddenly flying up perpendicularly into the air to a height of 20 or 30 feet and then dropping head first, with closed wings, almost to the ground, only opening its wings just before alighting. I have noticed it doing this repeatedly, for half an hour at a time, generally in the evening, over some open patch of ground where it could run about freely in search of insects.—R. B. W.]

**Anthus trivialis** Linn.

*Anthus trivialis* Shelley, B. Afr. ii. p. 299 (1900); Reich. Vög. Afr. iii. p. 311 (1904); Jackson, Ibis, 1905, p. 559 [Toro].

*a*. 120 miles W. of Entebbe, 4200 ft., 8th Dec. [No. 1045. D. C.]


Adult. Iris hazel or dark brown; bill brown or blackish, lower mandible light brown; feet light brown, brown, or flesh-colour.
[The Tree-Pipit was seen on Ruwenzori as late as the 18th of March, and was met with up to an elevation of 7000 ft. It was seen near Entebbe in December. —R. B. W.]

Anthus leggei Grant. (Plate XIII. fig. 4, e.)

a, b, c, d. Mokia, S.E. Ruwenzori, 3400 ft., 7th & 24th May. [Nos. 2344, 2391. G. L. Types of the species.]
d. Mokia, S.E. Ruwenzori, 3400 ft., 22nd & 23rd May. [Nos. 3396, 3404. R. B. W.]

This species is most nearly allied to A. brachyurus Sundev., from which it differs chiefly in its somewhat smaller size, the white ground-colour of the underparts, and the very strong black markings on the chest and breast. Iris dark brown; upper mandible black, lower mandible brown; feet brown, pale brown, or pale flesh-colour.

c. Total length ca. 4'5 inches; wing 2'5; tail 1'55; tarsus 0'64.

This very small Pipit was found only on the plains round the south end of Ruwenzori, and did not ascend the mountains. It was not a common bird and most difficult to procure, as it was impossible to see it while on the ground on account of the long grass. It was very reluctant to take flight, but, when once on the wing, flew with remarkable swiftness, usually rising to a considerable height and settling a long way off.—R. B. W.]

Macronyx croceus (Vieill.).

a, c. Entebbe, 3500 ft., 18th Nov. [No. 1002. D. C.]
b. c. 12 miles W. of Entebbe, 3500 ft., 24th Nov. [No. 3002. R. B. W.]
c. c. 40 miles W. of Entebbe, 3500 ft., 27th Nov. [No. 10. R. E. D.]
e. c. Mokia, S.E. Ruwenzori, 3400 ft., 24th April. [No. 233. R. E. D.]

m. c. Mokia, S.E. Ruwenzori, 3400 ft., 13th June. [No. 452. R. E. D.]

Adult male and female. Iris hazel to dark brown; upper mandible black, lower mandible bluish-horn colour; feet brown or light brown.

There is a specimen of M. croceus in the British Museum procured by Lord Delamere
on the Athi River, B.E. Africa, which is in a remarkable stage of plumage and unlike that of any other specimen which I have examined. The sides and flanks are pale sandy, heavily streaked with black shaft-stripes, and the yellow on the underparts is restricted to the middle of the breast and belly. The bird is probably a female attaining its first adult plumage, many of the feathers being only partly grown, but the light colour of the sides and flanks is peculiar, though probably only individual.

Through the kindness of Count Salvadori and of Mr. Walter Rothschild I have been able to compare the type-specimen of *Macronyx ascensi* Salvadori [cf. Bull. Mus. Tor. xxii. no. 570 (1907)], from Lake Meru, with a typical specimen of *M. fulleborni* Reichenow, from Ngomini, Uhehe Country (Marwitz), sent to the Tring Museum by Dr. Reichenow; also with two specimens of *Macronyx* procured in Angola respectively by Dr. W. J. Ansrorge in July and by Mr. C. H. Pemberton in December. These latter agree exactly with the type of *M. ascensi*, and though they are slightly brighter yellow on the breast and greyer on the rump than the typical specimen of *M. fulleborni*, I think it highly probable that all should be included under the latter heading. The typical specimen of *M. fulleborni*, which was killed in the month of August, is in partly worn plumage, but the feathers of back and rump have been recently moulted, which may account for their browner colour.

[The Yellow-throated Long-claw was plentiful from Entebbe to Ruwenzori and on the plains all round the mountains below 5000 ft.—R. B. W.]

**Family Nectariniidae.**

*Nectarinia erythrocerca* Heugl.

*Cinnyris erythrocerus* Shelley, B. Afr. ii. p. 49 (1900).


*Nectarinia erythrocerca* Grant, Ibis, 1908, p. 282 [Lake Edward].

*Adult male and female.* Iris dark brown; bill and feet black.

As already recorded, in my paper on the "Birds collected in Uganda and the Upper Congo," this species was procured by Mr. Carruthers a little to the north of Lake Edward, which is probably the most southerly and westerly point from which it has been obtained.

In the four males mentioned above the colour of the upper tail-coverts varies considerably. Nos. 3013 and 1700, from Entebbe and S.E. Ruwenzori respectively, have...
the upper tail-coverts mostly peacock-blue, while in Nos. 1679 and 1701, both from S.E. Ruwenzori, they are bright purple. This difference is no doubt caused by weathering. The under tail-coverts also vary greatly: in some specimens they are quite black, while in others they are widely tipped with purple.

[Henglin's Wedge-tailed Sun-bird was seen between Entebbe and Ruwenzori, and at the foot of the mountains on the east side. It was not an uncommon bird at the south-east end of the range, and it was also seen at Fort Beni.—R. B. W.]

**Nectarinia melanogastra** Fischer & Reichenow.

*Nectarinia melanogastra* Shalley, B. Afr. ii. p. 23, pl. i. fig. 2 (1900); Reich. Vög. Afr. iii. p. 496 (1905).

*Nectarinia melanogaster* Jackson, Ibis, 1906, p. 554 [Ruwenzori].

There is an adult male of this species in Mr. Jackson's collection, which was procured by Mr. Geoffrey Archer on Ruwenzori on the 13th of February, 1902, but the exact locality is not recorded. The species was not met with by the members of the Expedition.

**Nectarinia cupreonitens** Shelley.

*Nectarinia cupreonitens* Shelley, B. Afr. ii. p. 21 (1900).

*Nectarinia famosa* (Linn.) ; Reich. Vög. Afr. iii. p. 499 (1905) [part].


Iris dark brown; bill and feet black.

After a careful examination of all the specimens of *N. famosa* (Linn.) and *N. cupreono-

itens* Shelley, both in the British Museum and in Mr. Jackson's collection, I find that the present form can be recognised by its shorter and more curved bill, as well as by its slightly smaller size, from examples of *N. famosa* from South Africa, and should be kept separate.

According to Mr. A. Stark and Captain Shelley, birds of this genus after the breeding-season assume a change-plumage like that of the adult female. Against this theory I may mention that among the large series of specimens of *N. famosa* collected by Mr. Claude Grant in South Africa there are full-plumaged males procured throughout the whole year. All the evidence points to the fact that the birds which Captain Shelley and others supposed to be adult males in change-plumage are really younger males in an intermediate hen-like plumage, which is assumed after the first plumage and retained during the first year. The metallic wings and long middle tail-feathers, like those of the adult, are then assumed, but the head and rest of the upperparts as well as the breast remain much like those of the female, but are intermixed with a few scattered metallic feathers. Subsequently the metallic back and breast of the fully adult male are acquired. There are numerous immature males
in the British Museum collection in which the metallic feathers of the back are obviously moulting, many being only partially grown, but there is not a single specimen with the metallic back which is assuming the olive-brown plumage, and if this intermediate plumage was really an eclipse plumage such specimens would certainly be found among the large series I have examined. I therefore assume that males of the genus *Nectarinia*, unlike the males of *Cinnyris*, do not assume the fully adult plumage during the first year, and that during that period they are clad in an intermediate and partly hen-like plumage.

[A few examples of the Northern Malachite Sun-bird were met with just at the foot of the mountains on the west side of Ruwenzori, near the mouth of the Butagau River. They were not uncommon at this spot, but were never met with again throughout the whole journey.—R. B. W.]

*Nectarinia kilimensis* Shelley. (Plate XIX. fig. 9, egg.)

*Nectarinia kilimensis* Shelley, B. Afr. ii. p. 28, pl. i. fig. 1 (1900); Reichl. Vög. Afr. iii. p. 502 (1905); Jackson, Ibis, 1906, p. 555 [Toro].


z. ♀ . Fort Beni, Semliki Valley, 3000 ft., 24th July. [No. 2433. G. L.]

Adult male and female. Iris dark hazel or dark brown; bill and feet black.

I am rather doubtful if specimen 2433 is really a female of *N. kilimensis*, for it has the general colour of the underparts brownish-yellow. It, however, closely resembles a female from Toro in the Jackson Collection, which latter has the underparts intermediate in colour between typical yellow-breasted *N. kilimensis* and the brown-breasted bird from Fort Beni.

The egg figured on the accompanying Plate forms part of Mr. F. J. Jackson's collection, and was procured on the Mau Downs on the 18th of December, 1895.

[The Kilimanjaro Bronze Sun-bird was met with almost everywhere throughout the
journey wherever the tree *Erythrina tomentosa* grows. We met with it on Ruwenzori up to an elevation of 7000 ft., but it was not found in the dry acacia-country around the south end of the range, where this tree is very scarce. All the Sun-birds, but more especially those with long bills, which enable them to probe the deep cup of the flower of *E. tomentosa*, are greatly attracted by its clusters of scarlet blossom. *N. kilimensis* appears to feed on it almost exclusively, and, so far as our experience went, the species is not found where this tree does not occur.—*R. B. W.*]

**Nectarinia dartmouthi** Grant. (Plate XII. figs. 1, ♂ ; 2, ♀.)

*Nectarinia dartmouthi* Grant, Bull. B. O. C. xvi. p. 117 (1906).

3133 *, 3134, 3135, 3136, 3137. R. B. W.]


The male of this splendid alpine species is most nearly allied to that of *N. salvadorii* Shelley, having the same rather short and but slightly curved bill, but is easily distinguished by having the upperparts of a rather darker green, shading into dark greenish-blue on the rump. The upper tail-coverts, margins of the tail-feathers, belly, sides, and flanks are of the same greenish-blue tint. Iris dark hazel; bill and feet black. Total length about 10-4 inches; culmen 1-1; wing 3-2; middle tail-feathers 6-5, lateral tail-feathers 2-3; tarsus 0-8.

The female is very similar to that of *N. johnstoni* Shelley, but is easily distinguished by the shorter and straighter bill.

The occurrence of this remarkably handsome Sun-bird dwelling on the highest parts of the range, close to the limit of vegetation, was perhaps the most important discovery made by the Expedition. It has been named in honour of the Earl of Dartmouth, who was one of the principal subscribers to the Ruwenzori Expedition. His son, Mr. Gerald Legge, was one of the most successful collectors who took part in this memorable exploration.

[This beautiful Sun-bird was found only on Ruwenzori, where it frequented the lobelia- and groundsel-zone from an elevation of 12,500 ft. up to 14,500 ft. In the early morning, when the sun generally shines upon the higher parts of the range for a few hours before the cloud-bank has accumulated, these regions seem alive with the males

* Types of the species.
of this beautiful green Sun-bird and their more sombrely clad wives. Their short cheerful song is heard on all sides, uttered from the top of a tall lobelia-spire or bunch of giant groundsel. It is a very pretty sight to see them feeding upon the lobelias, as they cling to the side of the tall flower-spire. With their legs held horizontally so as to keep the body away from the flowers, they swiftly probe the long pale blue tubes of the blossom with their curved beaks. The males are incessantly fighting with one another or flirting with the females, and each pair seems to claim a certain district as its own, from which all trespassers are hastily and noisily chased. They show little or no fear of man, and one actually settled upon the barrel of Mr. Carruthers's gun while he was standing still. Where found they are extremely plentiful, but as they are never met with below 12,500 ft. they do not occur among the tree-heaths, and apparently feed entirely upon the lobelia-blossoms.

In dark misty weather few of these birds were to be seen, but their song was often heard in spite of mist and rain. They were breeding in January, which is the driest month of the year, and some of the young were already fledged. Unfortunately, we failed to find a nest.—R. B. W.]

**Nectarinia purpureiventris** (Reichenow).

*Conus purpureiventris* Shelley, B. Afr. ii. p. 39 (1900).
*Nectarinia barake* Sharpe, Bull. B. O. C. xiii. p. 8 (1902), p. 50 (1903) [Ruwenzori].


Iris dark brown; bill and feet black.

The only example of this remarkably handsome Sun-bird procured by the Expedition is a male assuming the metallic breeding-plumage.

In the Jackson Collection there are numerous examples from Ruwenzori, procured by Mr. G. Archer, and, among them, males in full breeding-plumage shot in February and October. There is also a male, killed on the 13th of February, assuming the metallic plumage, and very similar to the bird in the present Collection, which was procured on the 10th of March. This would seem to indicate that the metallic plumage is assumed in February and March; but I have satisfied myself that both these specimens are immature birds assuming their metallic dress and not adult birds coming out of an "eclipse" plumage. This species was first procured by Stuhlmann at Migere, on the Mufumbiro Volcanoes.

[A single specimen of Baraka's Sun-bird was shot by Mr. Gerald Legge in the Mubuku Valley, on the east side of Ruwenzori, at an altitude of 7000 ft. This was the only occasion on which the species was met with during the whole expedition around the mountains. It is a remarkable fact that Mr. Geoffrey Archer should have
obtained nearly a dozen examples of this species on Ruwenzori, either in the Mubuku or Luimi Valleys, both of which were visited by the Expedition.—R. B. W.]

**Anthothreptes axillaris** Reichenow.

*Anthothreptes axillaris* Shelley, B. Afr. ii. p. 143 (1900).


*a.* $\sigma$. 20 miles N.W. of Fort Beni, Semliki Valley, 3000 ft., 11th Aug. [No. 505. R. E. D.]

*b.* $\varphi$ [? $\sigma$ imm.]. Irumu, Eturi Forest, 3000 ft., 16th Oct. [No. 565. R. E. D.]

**Adult male.** Iris dark brown; bill dusky; feet olive-brown.

**Immature male?** Iris hazel; upper mandible black, lower light horn-colour; feet slate-colour.

This very distinct species is new to the British Museum. Specimen “b,” marked “?,” by Mr. Dent, is probably an immature male; for the female is said to have no pectoral tufts, while in the present specimen the tufts are distinctly indicated by a few yellow feathers tipped with orange. The bill, too, is much shorter than in the adult male.

[A few of these little Grey-crowned Sun-birds were met with in the Eturi Forest between Fort Beni and Irumu. They appeared to frequent the undergrowth and not the tree-tops, but so few were seen that we could not be certain on this point. It is, however, an interesting one, for birds were very rarely found to inhabit both the undergrowth and the tree-tops.—R. B. W.]

**Anthothreptes zambesiana** Shelley.

*Anthothreptes hypodila* Shelley, B. Afr. ii. p. 151 (1900) [part.].

*Anthothreptes hypodila* Reich. Vög. Afr. iii. p. 442 (1905) [part.].

*Anthothreptes zambesiana* Grant, Ibis, 1908, p. 286 [S.W. Uganda].


*b.* $\sigma$. 6500 ft., 6th Feb. [No. 1219. D. C.]

*c, d.* $\varphi$ et $\sigma$ imm. Mubuku Valley, E. Ruwenzori, 7000 ft., 24th March. [Nos. 3257, 3258. R. B. W.]

*e.* $\sigma$. Mokia, S.E. Ruwenzori, 3400 ft., 6th May. [No. 1506. D. C.]

*f.* $\sigma$. Fort Beni, Semliki Valley, 3000 ft., 22nd July. [No. 1737. D. C.]

*g.* $\varphi$. Mawambi, Congo Forest, 3000 ft., 29th Oct. [No. 3646. R. B. W.]


**Adult male and female.** Iris dark brown; bill and feet black.

I have already explained my reasons for keeping *A. zambesiana* distinct from *A. hypodila* (Jard.) in my paper on Mr. Carruthers’s collection published in ‘The Ibis,’ vide supra.
[A few examples of the Zambesi Collared Sun-bird were met with in the Eturi and Congo Forests and in the Mpanga Forest to the east of Ruwenzori, as well as on the mountains up to 7000 ft.; but they were distinctly scarce. A nest of this species was found on Ruwenzori at 7000 ft.; it was placed among the leaves of a giant lobelia (Lobelia gibberosa), about 8 feet from the ground, and was composed of very fine grass and the thin tendrils of creepers. Unfortunately the nest was forsaken when only half built.—R. B. W.]

**Anthothreptes tephrolæma** (Jard. & Fraser).

*Anthothreptes tephrolæma* Shelley, B. Afr. ii. p. 156 (1900).


\[a-c. \delta \ ? . \ 10-40 \text{ miles N.W. of Fort Beni, Semliki Valley, 3000-3500 ft., 10th-13th Aug.} \quad \text{[Nos. 503, 507. R. E. D.; 1781. D. C.]}\]

*Adult male and female.* Iris reddish-brown or dark brown; bill and feet black.

The female No. 507 is marked by Mr. Dent as "breeding; shot in clearing in forest."

[The Grey-chinned Collared Sun-bird was obtained only in the Eturi Forest, near Fort Beni, where it appeared to be a rare bird.—R. B. W.]

**Cyanomitra ragazzii** Salvad.

*Cyanomitra obscura* Shelley, B. Afr. ii. p. 125 (1900) [part.].

*Chalcimitra obscura* Reich. Vög. Afr. iii. p. 450 (1905) [part., nec Fernando Po].


\[a. \ \delta . \quad \text{Fort Beni, Semliki Valley, 3000 ft., 23rd July.} \quad \text{[No. 3514. R. B. W.]}\]

\[b. \ \delta . \quad \text{30 miles N. of Fort Beni, 3900 ft., 12th Aug.} \quad \text{[No. 1779. D. C.]}\]

\[c-e. \ \delta \ ? . \quad \text{Mpanga Forest, Fort Portal, 5000 ft., 17th & 21st Sept.} \quad \text{[Nos. 526, R. E. D.; 3600, 3601. R. B. W.]}\]

*Adult male and female.* Iris brown or dark brown; bill and feet dark brown or black.

According to Dr. Reichenow, the birds from the Mpanga Forest should be called *C. ragazzii* (Salvad.); but the differences between them and the birds from West Africa are too slight to warrant any separation. With this conclusion Captain Shelley fully agrees.

Birds from Fernando Po are slightly larger, and have the underparts greenish-white; in birds from the mainland of Africa these parts are generally olive.

The type of *Neocarinia obscura* Jardine was procured in Fernando Po, and therefore the name *C. ragazzii* must be retained for the specimens from the African Continent. The British Museum possesses a typical specimen of *C. ragazzii* (Salvad.) from "Forest di Fekerie-ghem," Shoa, killed on the 6th of May, 1885, and received...
in exchange from the Turin Museum. It is apparently not quite fully adult and still possesses traces of yellow on the throat and underparts, characteristic of immaturity. It is the specimen \( b \) (155) \( \text{[cf. Salvad. An. Mus. Civ. Genov. xxvi. p. 247 (1888)]} \), and is marked as "♀," but is certainly a male with the yellow pectoral tufts well developed.

[This curious Sun-bird was plentiful both in the Eturi Forest and in the Mpanga Forest to the east of Ruwenzori. It was never seen except when darting hither and thither among the undergrowth with a surprisingly swift and jerky flight, uttering, as it flew, a short sharp note.—R. B. W.]

**Cyanomitra cyanolema** (Jard.)


\( a. \) ♀. 10 miles N.W. of Fort Beni, Semliki Valley, 3000 ft., 10th Aug.  [No. 3538. R. B. W.]


*Adult female.* Iris dark brown; bill and feet black.

[The above-mentioned female examples of the Blue-throated Brown Sun-bird, obtained in the Eturi Forest, were the only ones seen.—R. B. W.]

**Cinyris viridisplendens** Reichenow.

*Cyanomitra verticalis* Shelley, B. Afr. ii. p. 127 (1900) [part.].


\( a, b. \) ♀. 120–140 miles west of Entebbe, 4000–4500 ft., 9th & 11th Dec.  [Nos. 46. R. E. D. ; 3046. R. B. W.]


\( m-o. \) ♀. Mukubu Valley, E. Ruwenzori, 5000 ft., 3rd & 5th April.  [Nos. 2267, 2268, 2277. G. L.]


\( w. \) ♀. Butagu Valley, W. Ruwenzori, 4500 ft., 28th July.  [No. 498. R. E. D.]

Iris dark brown; bill and feet black.
All the male specimens in the present collection clearly belong to this rather larger, longer-billed, and greener-throated form of *C. verticalis* (Lath.). The West African birds have the bill somewhat shorter, and as a rule the throat is distinctly blue, though in a large series a few specimens which are intermediate as regards the colour of the chin and throat can be found. Moreover, the male of *C. verticalis* has the breast and underparts of a blackish-grey tint (in *C. viridisplendens* these parts are dark grey) and the female has the underparts of a soiled white tint, relatively much lighter than in *C. viridisplendens*, which is grey below and rather darker on the throat and chest.

Young males of *C. viridisplendens* in first plumage have the crown bright olive, with a few metallic-green feathers on the throat, the chest blackish mixed with some metallic-green plumages, and the rest of the underparts yellowish-olive.

Young females have the crown like that of the young males, but the throat and chest are yellowish-olive like the rest of the underparts.

[The eastern form of the Green-headed Olive Sun-bird was obtained near Entebbe, and was met with throughout the journey to Ruwenzori; it was not seen on the mountains above 7000 ft.—*R. B. W.*]

**Cinnyris aline** (Jackson).


*Adult male and female.* Iris crimson, reddish-brown, chestnut, or hazel; bill and feet black.

In the original description of the type-specimen the sex (male) is not stated, and no mention is made of the pale chocolate-yellow pectoral tufts which are characteristic of that sex.

The female has never been described, but differs from the male only in lacking the pale yellow pectoral tufts.
Young males have the crown, chin, and throat blackish, usually with a few metallic feathers, the mantle olive, without the orange wash found in the adult, and the breast and rest of the underparts greyish, washed with olive.

[Jackson’s Purple-throated Sun-bird was found on Ruwenzori at elevations of from 5500 to 8500 ft. It was plentiful both in the forest and below it, feeding largely upon the scarlet flowers of *Erythrina tomentosa*. Females of this species were remarkably difficult to obtain; when numbers of these birds were feeding in the same tree the proportion of males to females was always as great as eight to one. This was the case during the whole time we remained in the mountains, so that the possible explanation that most of the females were engaged in incubation would not hold good.—R. B. W.]

*Cinnyris aquatorialis* Reichenow.


[Toro].


c. ♂. 100 miles W. of Entebbe, 4100 ft., 7th Dec. [No. 1042. D. C.]


h. ♂. Mokia, S.E. Ruwenzori, 3400 ft., 28th April. [No. 1448. D. C.]


d. d. d. d. d. 3319, 3326, 3422, 3425, 3426. R. B. W.]

z, d'. ♂ ♂. Mokia, S.E. Ruwenzori, 3400 ft., 3rd & 16th June. [Nos. 3446, 3490. R. B. W.]


Adult male and female. Iris dark brown; bill and feet black.

All the above-mentioned specimens belong to the larger form of *C. acik* Antinori, which has been separated by Dr. Reichenow under the above name. The latter states that the metallic green of the top of the head and chin is of a different colour in the two forms; but this does not appear to be really the case. The only real difference seems to be one of size, the more northern *C. acik* being altogether smaller and having a much shorter bill.

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<td>Adult males</td>
<td></td>
</tr>
<tr>
<td>C. acik</td>
<td>0·86–0·87</td>
</tr>
<tr>
<td>C. aquatorialis</td>
<td>1·07–1·15</td>
</tr>
</tbody>
</table>

Mr. G. Archer notes that he did not meet with this species on Ruwenzori, though he procured specimens in Toro.

†The Larger Scarlet-chested Sun-bird was seen throughout the journey from Entebbe
to the edge of the Eturi Forest; but on Ruwenzori it did not ascend above 5000 ft.—
R. B. W.]

**Cinnyris falkensteini** Fisch. & Reichenow.

*Cinnyris falkensteini* Shelley, B. Afr. ii. p. 66, pl. iii. fig. 1 (1900); Grant, Ibis, 1908, p. 282
[N.W. of Lake Tanganyika].


♂. 100 miles W. of Entebbe, 4000 ft., 6th Dec.  [Nos. 3032. R. B. W.]

This specimen was procured by Mr. Woosnam on the 6th of December, about
100 miles to the west of Entebbe, and on the following day he obtained typical
examples of *C. igneiventris*, showing that the ranges of these two forms meet at this
spot. The bird is a fully adult male, with the orange pectoral tufts and yellow belly
and flanks characteristic of *C. falkensteini*.

**Cinnyris igneiventris** Reichenow.


*Cinnyris igneiventris* Grant, Ibis, 1908, p. 282 (Lake Kivu).


h. ♀. Fort Portal, 5200 ft., 5th July.  [No. 3501. R. B. W.]

R. E. D.; 3066, 3147. R. B. W.]

R. E. D.; 1221. D. C.]

[Nos. 3150, 2191. G. L.; 3190. R. B. W.]

Adult male and female. Iris brown or dark brown; bill and feet black.
[The Fire-bellied Sun-bird was plentiful near Entebbe, and was not uncommon
throughout the journey to Ruwenzori, where it was occasionally seen up to an elevation
of 8000 ft. A few were also met with at the south end of the range, but they were rather
rare there.—R. B. W.]

**Cinnyris cupreus** (Shaw).  (Plate XIX. fig. 7, egg.)

*Cinnyris cupreus* Shelley, B. Afr. ii. p. 36 (1900); Reich. Vög. Afr. iii. p. 475 (1905);
Jackson, Ibis, 1906, p. 556 [Entebbe].

a. ♀. 30 miles W. of Entebbe, 3500 ft., 26th Nov.  [No. 3006. R. B. W.]

b. ♀ imm. [♀ ♀ ad.]. 150 miles W. of Entebbe, 4000 ft., 11th Dec.  [No. 3053.
R. B. W.]

c, d. ♀ imm. Mubuku Valley, E. Ruwenzori, 5000 ft., 28th Feb.  [Nos. 3183,
3184. R. B. W.]
ZOOCLOGICAL RESULTS OF THE RUWENZORI EXPEDITION.

*Cinnyris superbus* (Shaw).


Iris dark brown; bill and feet black.

[The Superb Sun-bird was not uncommon around Fort Beni on the eastern edge of the Eturi Forest, and was met with sparingly in the clearings in the forest between Fort Beni and Mawambi. It was not observed in the forest near Irumu.—*R. B. W.*]

*Cinnyris mariquensis* Smith.


*Cinnyris mariquensis suahelicus* Reich. l. c.

*Cinnyris osiris* Shelley, l. c. p. 53 [part.].

* a. * ♂. 100 miles W. of Entebbe, 4100 ft. [No. 1044. D. C.]
Iris dark hazel; bill and feet black.

This bird, a nearly adult male, belongs to the typical South African form, which it resembles in every particular, including the length of the bill. *Cinnyris suahelicus* Reichenow should be referred to the synonymy of *C. mariquensis*, and not to that of *C. osiris* as quoted by Captain Shelley [B. Afr. ii. p. 53 (1900)].

[The Southern Bifasciated Sun-bird was met with only between Entebbe and Ruwenzori.—*R. B. W.*]

*Cinnyris microrhynchus* Shelley.

*Cinnyris microrhynchus* Shelley, B. Afr. ii. p. 55 (1900).


*a.* Mokia, S.E. Ruwenzori, 3400 ft., 28th April. [No. 3290. *R. B. W.*]

*b.* Mokia, S.E. Ruwenzori, 3400 ft., 28th April. [No. 3290. *R. B. W.*]

*Adult male and female.* Iris dark brown; bill and feet black.

The six male examples from S.E. Ruwenzori included in the present collection are somewhat puzzling, and, though I think they must all belong to one species, they vary one from another considerably in the colour of their plumage. First, as regards the colour of the under tail-coverts: in three specimens (Nos. 402, 1566, 3496) these parts are black with a dull purplish gloss; in one (No. 1565) they are brilliant metallic purplish-blue margined with bluish-green; while in the remaining two (Nos. 1527, 3290) they are intermediate in colour, being black tipped with greenish-blue. In the bird with the brilliant under tail-coverts the metallic purplish-blue bands across most of the feathers of the maroon-red breast-band are more strongly developed, and many of the feathers on the breast are tipped with purplish-blue. This is apparently an old male in the fullest plumage. One specimen (No. 1527) has the breast-band much brighter, some of the feathers being dull vermilion, and has the wing-measurement 2·2 inches and that of the tail 1·4. In the remaining five specimens the wing varies from 2·25 to 2·4 and the tail from 1·65 to 1·75, the difference in the length of the latter being considerable.

In Mr. Jackson’s collection I find two specimens from Mount Maungu and the River Voi, both in the Teita district. One of these, from the Voi River, nearly resembles specimen No. 1527 from S.E. Ruwenzori in possessing a brighter breast-band and in having the measurements of the wing and tail equally small, 2·1 and 1·4 inches respectively; the second bird, from Mount Maungu, has the maroon breast-band washed with purple, the under tail-coverts black tipped with greenish-blue, the wing-measurement 2·25 and that of the tail 1·6.

It must be added that the bird from the Voi River, killed in December, is in very
worn plumage, while that from Mount Maungu, killed in April, is freshly moulted; but this difference could scarcely account for the difference in length of the tail, and it must be further noted that the short-tailed bird from S.E. Ruwenzori (No. 1527), killed in May, was procured with three long-tailed specimens shot in the same locality and during the same month. The matter requires further investigation.

[The Least Bifasciated Sun-bird was obtained only on the plains on the S.E. of Ruwenzori, where it was not uncommon.—R. B. W.]

**Cinnyris bouvieri** Shelley.


Iris dark brown; bill and feet black.

This bird closely resembles the type-specimen of *C. bouvieri* from Landana, but is somewhat larger as regards the measurements of the wing and tail; while the bill is a trifle shorter, and very much shorter than in the type-specimen of *C. tanganyicae* Grant, which I recently described from the western shores of Lake Tanganyika (cf. *‘Ibis,* 1908, p. 283).

<table>
<thead>
<tr>
<th>Culmen.</th>
<th>Wing.</th>
<th>Tail.</th>
</tr>
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<tbody>
<tr>
<td>in.</td>
<td>in.</td>
<td>in.</td>
</tr>
<tr>
<td>Type of <em>Cinnyris bouvieri</em></td>
<td>0.9</td>
<td>2.1</td>
</tr>
<tr>
<td>Male from Eastern Ruwenzori</td>
<td>0.8</td>
<td>2.3</td>
</tr>
<tr>
<td>Type of <em>C. tanganyicae</em></td>
<td>1.02</td>
<td>2.25</td>
</tr>
</tbody>
</table>

The Ruwenzori bird appears to have rather less blue on the forehead; but the specimen is in worn plumage with much of the green metallic plumage of the upperparts and throat weathered to a pinkish-bronze colour.

The type of *C. tanganyicae* is further distinguished from the other specimens mentioned above by its differently coloured orange-and-yellow (not scarlet-and-yellow) pectoral tufts.

The discovery of this West-African species on Ruwenzori greatly extends its known range.

[A few examples of Bouvier’s Sun-bird were seen between Entebbe and Ruwenzori and at the foot of the mountains on the east side to the north of the Mubuku Valley; but they were not found among the acacia-country around the south end, where *C. microrhynchus*, a very similar species, was so plentiful.—R. B. W.]

**Cinnyris chloropygius** (Jardine).

*Cinnyris chloropygius* Shelley, B. Afr. ii. p. 83 (1900) [part.].


*Cinnyris preussi* Sharpe (nee Reich.), *Ibis*, 1908, p. 338 [Camaroon].
a. ♂. 40 miles W. of Entebbe, 3500 ft., 27th Nov. [No. 1013, D. C.]


Adult male and female. Iris dark brown or black; bill and feet black.

Dr. Reichenow recognizes three subspecies of this bird, viz.:
1. Cinnyris chloropygius (Jard.), ranging from Senegambia to the Niger.
2. C. c. lühderi Reichenow, ranging from Cameroon to Loango.
3. C. c. orphogaster Reichenow, ranging from the Upper Nile, above Lado, southwards to the Lakes.

With all the available material arranged geographically it is easy to recognize two forms, viz. that found in Sierra Leone, with its conspicuously olive underparts, and that inhabiting the Gold Coast, Niger, Cameroon, Fernando Po, and Gaboon, ranging southwards to Loango, and eastwards along the Congo to the Aruwimi and Welle Rivers, Tingasi, Semliki Valley, and Entebbe. I find it impossible to separate the west coast birds (C. c. lühderi Reich.) from the specimens procured in the neighbourhood of the Lakes (C. c. orphogaster Reich.); for though some individuals from Fantee, Cameroon, &c. have the breast and belly of a more olive and less brownish tint, the bulk of the specimens are indistinguishable from one another.

The point which I wish to emphasize is that the type of C. chloropygius (Jard.) from the Niger River belongs to the darker-breasted form and not to the olive-breasted bird from Sierra Leone, as has been supposed by Dr. Reichenow and Dr. Hartert. The Sierra Leone bird is therefore, so far as I can discover, without a name, and I propose to call it

Cinnyris kewi, sp. n.


Adult male. Differs from C. chloropygius (Jard.) in being rather smaller, wing 1'8 to 1'9 inch, and in having the lower breast and belly, as well as the flanks and under tail-coverts, conspicuously olive.

There is a female example of C. chloropygius (No. 1748), procured by Mr. Carruthers in company with the adult male (No. 1746), which has the yellow chest and breast obscurely streaked with dusky, and in this respect differs from most of the female specimens in the British Museum which have been referred to C. chloropygius.

[A single specimen of the Little Scarlet-collared Sun-bird was obtained near Entebbe. It was not met with again until we reached Fort Beni in the Semliki Valley, where it was numerous. It was also seen in some of the clearings in the Eturi Forest between Fort Beni and Irumu.—R. B. W.]
CINNYRIS STUHLMANNI Reichenow.


i. ♀. Mubuku Valley, E. Ruwenzori, 11,000 ft., 5th April. [No. 3267. R. B. W.]

Adult male and female. Iris dark brown; bill and feet black.

This remarkably interesting species was known only from male specimens procured by Stuhmann. The exact locality where they were obtained was not indicated by the collector; but, from the information now at our disposal, it is practically certain that they were procured high up in the Butagu Valley on Western Ruwenzori.


Specimen 162a, killed on the 20th of February, is an immature male in partially adult plumage.

[Stuhmann’s Double-collared Sun-bird, which is known only from Ruwenzori, inhabits a belt little more than a thousand feet in width, and extending from about 10,000 ft. up to 11,200 ft.—that is, from the upper edge of the bamboo-zone to the lower half of the tree-heath. It is by no means a common bird; but is perhaps most plentiful at 10,000 ft., just where the tree-heaths and bamboos intermingle, and it is absolutely confined to that belt. The male has a short bright song, and, when in full plumage, is a very handsome bird. When courting, it gives quite a miniature display before the female, hopping around her with its wings drooping and quivering, and with the two beautiful yellow pectoral plumes raised and spread like fans at right angles to the body. It is a curious fact that, except for its larger size, this Sun-bird exactly resembles in every detail C. reichenowi, a species which is found 3000 ft. lower down the mountains, and which also inhabits the surrounding plains. Possibly this increase in size is the result of the cooler climate at higher altitudes.—R. B. W.]

CINNYRIS REICHENOWI Sharpe.


**Adult male and female.** Iris dark brown; bill and feet black.

This species is very closely allied to the form inhabiting Cameroon and Fernando Po, which has been named *C. preussi* Reichenow, and may perhaps be distinguished from *C. reichenowi* by having the outer webs of the wing-coverts and quills edged with brighter olive. There is no difference in the length of the wing-measurement, which, in a large series of specimens from Ruwenzori, Kisumu, and Nandi, varies from 55 to 57 mm.

I have little doubt that *C. preussi* should be added to the synonymy of the present species; but I have only been able to examine three male examples of the Western form.

The female of this species does not appear to have been described; but it agrees with the description of the female of *C. preussi* given by Dr. Reichenow, except that the throat and crop are said to be grey, whereas in the present species they are olive like the rest of the underparts.

[Reichenow's Double-collared Sun-bird was met with between Entebbe and Ruwenzori. It was plentiful on the east side of the range up to an elevation of 7000 ft., and was occasionally seen as high as 8000 ft.—R. B. W.]

**Cinnyris regius** Reichenow.

*Cinnyris regius* Shelley, B. Afr. ii. p. 86 (1900); Reich. Vög. Afr. iii. p. 491 (1905); Jackson, Isis, 1906, p. 557 [Ruwenzori].


ZOOLOGICAL RESULTS OF THE RUWENZORI EXPEDITION.


*Adult male and female.* Iris dark brown or dark hazel; bill and feet black.

As neither Captain Shelley nor Dr. Reichenow gives a description of the male of this fine Sun-bird, I take this opportunity of doing so.

*Adult female.* General colour above greyish-olive, the feathers of the crown with dusky middles; superciliary stripes, cheeks, and underparts pale olive, washed with yellow on the middle of the abdomen; wings greyish-black, both the quills and coverts margined on the outer web with tawny olive; under wing-coverts white tinged with yellow; axillaries and edge of shoulder pale yellow; tail-feathers black. Wing 1·9–1·95 inch; tail 1·4.

The large series of thirty specimens includes three immature males moulting into the adult plumage; two of these were procured on the 11th and 15th of January respectively, and a third was killed on the 12th of March.

[The Red-breasted Wedge-tailed Sun-bird is found on Ruwenzori from an elevation of 6000 to 10,000 ft.; but it is most numerous in the forest-zone between 7000 and 8500 ft. The male sings a short sparkling song, which one is often surprised to hear in the darkness of the forest and in the mist at 10,000 ft.

At present this species is known only from Ruwenzori; but, although no specimen was obtained, Mr. Carruthers assures me that he saw and heard it among the bamboo-forests at 8000 ft. on the Mufumbiro Volcanoes, which lie to the south of Lake Edward. There, it may be noted, he obtained a specimen of *Tarsiger ruwenzori*, a species previously known only from Ruwenzori.—*R. B. W.*]

Family DICAEDÆ.

*Pholidornis denti* Grant. (Plate XIII. fig. 1, ♂.)


*a, b. ♀. Avakubi, E. Congo Forest, 2500 ft., 31st Oct. [Nos. 578, 579. R. E. D. Types of the species.]*

This fine new species is most nearly allied to *P. rushiei* (Cass.), but is easily distinguished by having the lower back, rump, and upper tail-coverts, as well as the lower breast, belly, and under tail-coverts, of a much brighter yellow; and the feathers of the mantle, wing-coverts, and scapulars with conspicuous pale sandy margins. As in *P. bedfordi* Grant, the outer margins of the quills are uniform black and not edged with olive, as in *P. rushiei*. Iris crimson in the male, grey in the female; upper mandible black, lower mandible yellow with the tip black; feet yellow.

*Male.* Total length ca. 3·1 inches; wing 1·9; tail 0·95; tarsus 0·51.

*Female.* " 3·2 " ; " 1·9; " 1·0; " 0·52.

The male is marked by Mr. Dent as “breeding.”
A pair of this beautiful little Flower-pecker were shot in the Congo Forest near Mawambi by Mr. R. E. Dent. They frequent the tops of the tall trees, and, though probably not uncommon, are very difficult to get.—R. B. W.

Family Zosteropidae.

Zosterops Jacksoni Neumann.


Zosterops scotti Neumann, Reich. t. c. p. 431 ; Jackson, Ibis, 1906, p. 554 [Ruwenzori].


w. ♂. Mpanga Forest, 5000 ft., 16th Sept. [No. 3563. R. B. W.]

Adult male and female. Iris dark brown; bill black; feet blackish, brown, or greenish-grey.

After a careful examination of a very large series of Zosterops from Ruwenzori, Toro, Uganda, and Kavirondo, I agree with Capt. Shelley that Z. scotti Neumann, from Ruwenzori, cannot be separated from Z. jacksoni Neumann, from Mau, Nandi, Elgon, &c.

An unusually small and brightly-coloured male was procured in the Mpanga Forest. In this specimen the wing measures 2·25 inches and the tail 1·55; whereas in most of the males from Ruwenzori the wing measures 2·4–2·5 inches and the tail 1·8; one bird, however, from the latter locality closely approaches the bird from the Mpanga Forest in size, having the wing 2·3 inches and the tail 1·6.

[Jackson’s White-eye was found on Ruwenzori at elevations of from 5000 to 10,000 ft. It was very plentiful in the forest-zone, and perhaps the most numerous bird in the mountains. It was also plentiful in the Mpanga Forest, but was not seen in the Congo Forest.—R. B. W.]
Family Paridæ.

Parus funereus J. & E. Verreaux.

Parus nigricinereus Jackson, Ibis, 1899, p. 638, pl. xiii. [Nandi].


b. ♂. Mpanga Forest, Fort Portal, 5000 ft., 18th Sept. [No. 531. R. E. D.]

Adult male. Iris crimson; bill and feet black.
Immature male. Iris reddish-brown; bill black; feet dark grey.
The adult male agrees perfectly with the type-specimen of P. funereus from Gaboon. The immature specimen from Fort Beni is in the stage of plumage described by Mr. Jackson as P. nigricinereus.

[A few examples of the Dusky Black Titmouse were seen in the Eturi Forest and also in the Mpanga Forest, to the east of Ruwenzori. They were always observed high up in the tree-tops.—R. B. W.]

Parus insignis Cabanis.

Parus insignis Shelley, B. Afr. ii. p. 231 (1900); Grant, Ibis, 1905, p. 206 [Mulema, S. Uganda].
Pelidryas leucomelas Jackson (nec Rüpp.), Ibis, 1906, p. 554 [Toro].

h. ♀ imm. Mokia, S.E. Ruwenzori, 3400 ft., 7th July. [No. 1722. D. C.]

Adult male and female. Iris dark brown; bill and feet black.
The series includes both old and young birds. The latter have the plumage of the upperparts black, almost devoid of gloss, and the underparts brownish-black; whereas in the adult both the upper- and underparts are black, strongly glossed with greenish.

As already pointed out in my paper on the Doggett Collection from S. Uganda, the range of the present species extends much further north than had been supposed by Captain Shelley or Dr. Reichenow.

A male bird from Toro (No. 995) has been referred by Mr. Jackson to P. leucomelas Rüpp., but is really referable to the present species.

There are a number of examples of the true P. leucomelas in Mr. Jackson’s collection from Entebbe, Elgon, &c. The species is easily distinguished from P. insignis by having the feathers of both the upper- and underparts black glossed with purplish-blue, instead of dull oily green.
[Cabanis's Black Titmouse was met with throughout the acacia-country on the plains around the south end of Ruwenzori. It was, comparatively speaking, a rare species on the east side of the range, but on the west, in the Semliki Valley, it was one of the commonest birds.—R. B. W.]

**Parus fasciventer** Reichenow.


*Pentheres fasciventer* Jackson, Ibis, 1906, p. 553 [Ruwenzori].


**Adult male and female.** Iris brown or dark brown; bill black; feet blue-grey or slate-grey (in one example, olive-green).

A fine series of this Titmouse was collected on Ruwenzori. The species is apparently peculiar to the range. On the 13th of January Mr. Carruthers procured a male (No. 1146), which he has marked “breeding.”

A quite young bird (No. 198) differs from the adult in having the feathers of the occiput and nape brownish-edged with black (instead of uniform black); the chin and middle of the throat black; the cheeks, sides of the head and throat, as well as the chest, greyish-brown (in the adult all these parts are black). The rest of the underparts whitish-buff, inclining to tawny on the flanks (instead of white); the black stripe down the middle of the breast indicated by a few blackish feathers; the light margins of the quills and wing-coverts yellowish-white (instead of pure white). The outer pair of tail-feathers are much shorter than the middle pair; whereas in the adult they are of nearly the same length.

[The Grey-backed White-breasted Tit was found on Ruwenzori from the forest-line at about 6500 feet up to an elevation of 11,000 feet, where it frequented the tree-heaths. It was, however, but rarely seen as high as this, and only when it had ascended the valleys. It is really a bird of the forest-zone, where it is not uncommon.—R. B. W.]

**Anthoscopus roccatii** Salvad. (Plate XIII. fig. 2, ♀.)

*Anthoscopus roccatii* Salvad. Boll. Mus. Tor. xxi. no. 542, p. 2 (1906) [Entebbe].


ZOOLOGICAL RESULTS OF THE RUWENZORI EXPEDITION.


Adult male and female. Iris dark hazel or dark brown; bill dusky, bluish-grey, or black; feet grey, dark grey, or dark blue.

The above-mentioned series collected at Mokia is apparently similar to specimens from Entebbe which have been described by Count Salvadori under the name *A. roccatii*.

This is quite a distinct species, but perhaps most nearly allied to *A. punctifrons* (Sundev.) from North-east Africa and to *A. capensis* (Gmel.) from S. Africa.

It has the colour of the upperparts of a dark olive-green; in *A. punctifrons* they are yellowish-olive and in *A. capensis* brownish-olive: the underparts are pale yellowish-white, intermediate in colour between the almost white-breasted *A. punctifrons* and the yellow-breasted *A. capensis*. From both these species it may be easily distinguished by having the fore part of the forehead yellow, with no trace of black tips to the feathers, and though some of these are more or less indistinctly tipped with greyish, the forehead has a uniform yellow appearance.

[A very few examples of Roccati’s Penduline Titmouse were seen among the acacia-trees on the plains around the south end of Ruwenzori.—R. B. W.]

Family **Laniidae**.

NILAUS CAMERUNENSIS Neumann.

*Nilanus nigritemporalis* Jackson (nee Reich.), *Ibis*, 1906, p. 552 [Toro].


Adult male and female. Iris dark brown (in one specimen olive-brown); bill black, grey at the base of the lower mandible; feet bluish, bluish-black, or dark grey.

I have referred the above-mentioned specimens with some doubt to *N. camerunensis*, Neum., which was founded on a single female specimen from South Cameroon. The females from Ruwenzori agree fairly well with the description of that bird, and there is no reason geographically why they should not belong to the same species; but before this point can be definitely settled it will be necessary to compare adult male specimens from the two localities. The males from S.E. Ruwenzori, on the whole, most nearly resemble *N. minor* Sharpe, and, as in that species, the markings on the sides form a
confluent longitudinal band, not streaks as in *N. affinis*, though they are of the same deep chestnut-colour; in *N. minor* they are light reddish-chestnut. It is, of course, quite possible that the birds from S.E. Ruwenzori may prove to be a distinct form, but until males from Cameroun are available for comparison this question cannot be settled. Birds of this genus appear to be rare and local, and are comparatively seldom procured. Hitherto Mr. Bates has not sent home a single specimen from West Africa.

The wing-measurement in four adult males from S.E. Ruwenzori varies from 3.15 to 3.25 inches; in two adult females it measures 3.15 and 3.35 inches respectively. Three young birds (a male and two females) differ from the adult female in having the greater wing-coverts tipped with pale whitish-buff and the throat slightly streaked with blackish. In the youngest specimen (a male) the under tail-coverts are buff with a few black cross-bars, while the white feathers down the middle of the back have a black subterminal bar.

Two quite young specimens from Toro have been regarded by Mr. Jackson as adult specimens of *N. nigritemoralis* Reich., but they are really referable to the present form, which belongs to the group with the white eyebrow-stripe.

[This Bush-Shrike is not uncommon throughout the acacia-country around the south end of Ruwenzori and in the Semliki Valley.—*R. B. W.*]

**Telephonus emini** Reichenow.


d.  e. ♂. Mubuku Valley, E. Ruwenzori, 5000 ft., 27th March. [No. 2252. G. L.]


g, h. ♂. Mokia, S.E. Ruwenzori, 3400 ft., 14th & 31st May. [Nos. 324, 400. *R. E. D.*]

*Adult male and female.* Iris hazel, dark brown, purple-brown, or slate; bill black; feet slate-colour.

[Emim's Bush-Shrike was not uncommon along the lower slopes of Ruwenzori and on the plains below: a few were seen up to an elevation of 6000 feet. The species was breeding at the end of December.—*R. B. W.*]

**Telephonus erythropsis** Shaw. (Plate XIX. figs. 21 & 23, eggs.)


*Adult male and female.* Iris bluish-grey, purple-grey, dark grey, or dark brown; bill black; feet slate-colour or bluish.

Prof. Neumann (cf. J. f. O. 1907, pp. 371–378) has written an elaborate account of *T. senegalus* and its allies, and he recognizes 13 subspecies, of which no less than 5 are described as new. I have examined the extensive material in the British Museum and compared the specimens with his paper, but am unable to agree with his conclusions. The birds procured by the Ruwenzori Expedition appear to be indistinguishable from specimens from the Transvaal &c. (*T. s. erythropterus* apud Neumann) and from Cameroon and Gaboon (*T. s. camerunensis*). Like them they have the posterior half of the eyebrow-stripe rufous-buff, whereas in the true *T. senegalus* it is white.

Three eggs are of a slightly pointed oval form and somewhat glossy. They are white with irregular dashes, dots, streaks, and blotches of dull maroon-red and purplish-grey, the markings being more or less concentrated into a zone round the larger end. They measure respectively 0.95×0.7; 0.91×0.69; 0.9×0.69 in.

[This Bush-Shrike was very numerous throughout the acacia-country around the south end of Ruwenzori and in the Semliki Valley. It was found breeding in May and June. The nest, which was placed in a low acacia-bush about three feet from the ground, was composed of small sticks and roots, and lined with fine roots. It contained three eggs.—R. B. W.]

**Telephonus minutus** Hartlaub.


*Antichromus minutus* Jackson, Ibis, 1906, p. 553 [Toro].

*Telephonus minutus* Neumann, J. f. O. 1907, p. 368.

a. ♀. 150 miles W. of Entebbe, 5000 ft., 12th Dec. [No. 1058. D. C.]


c. ♂. South Ruwenzori, 3000 ft., 19th June. [No. 2409. G. L.]

*Adult male and female.* Iris mauve or light claret-colour; bill black; feet bluish-grey or olive-grey.

[A few examples only of the Lesser Bush-Shrike were seen on the eastern slopes of Ruwenzori, and again on the plains near Lake Edward. It was not a common bird. —R. B. W.]
Nicator chloris (Less.).


d. ♀. 50 miles N. of Fort Beni, 3500 ft., 15th Aug. [No. 1784. D. C.]

Adult male and female. Iris hazel or dark brown; bill black; feet slate-grey, grey, or dark grey.
The male is very much larger than the female.

Male. Wing 4.2–4.25 inches.
Female. Wing 3.55 inches.
The male (No. 487) is marked by Mr. Dent "breeding."

[The Spot-winged Bush-Shrike was plentiful throughout the Eturi Forest, and a few were seen in the Mpanga Forest, east of Ruwenzori. It frequented both the undergrowth and the tree-tops. The only sound I ever identified as belonging to this bird was a loud, harsh, chattering note.—R. B. W.]

Laniarius similis (Smith).

Laniarius sulphurepectus Grant, Ibis, 1905, p. 203 [S. Uganda].
Chlorophoneus chrysoagaster Jackson, Ibis, 1906, p. 550 [Toro; Ankoli].
Laniarius similis Grant, Ibis, 1907, p. 589 [Baro River].
m, n, ♀. Mokia, S.E. Ruwenzori, 3400 ft., 1st & 17th June. [Nos. 405. R. E. D.;
d. 2408. G. L.]

Notes on this species will be found in my paper on the collection of birds from the Sobat and Baro Rivers, quoted above.

[The Yellow-fronted Bush-Shrike was not uncommon in the acacia-country around the south end of Ruwenzori and on the lower slopes of the mountains up to 5500 ft.—R. B. W.]
Laniarius erythrogaster (Cretzschm.). (Plate XIX. fig. 22, egg.)


Iris cream-colour; bill and feet black.

Several immature birds in the present collection differ from the adult in having the breast-feathers fringed with buff, and a few small feathers at the base of the upper mandible yellow.

Two eggs of this species were procured by Mr. R. B. Woosnam at Mokia on the 11th of May, 1906. They are of a rather pointed form and somewhat glossy. The ground-colour is pale blue, spotted and blotched with umber-brown and lilac-grey, the markings being most numerous round the larger end, where they form a distinct zone. Both measure \(9 \times 7\) inch.

[The Scarlet-bellied Bush-Shrike was met with near Entebbe and throughout the journey to Ruwenzori. The species was very numerous in the acacia-country at the south end of the range and in the Semiliki Valley. Its musical note was one of the most familiar sounds at the south end, but it was never seen on the mountains.—R. B. W.]

Laniarius lagdeni Sharpe.

Laniarius lagdeni Sharpe, P. Z. S. 1884, p. 54, pl. v. [Ashanti]; Grant, P. Z. S. 1908, pp. 287, 289 [Ruwenzori and Mufumbiro Volcanoes].


Iris light grey; bill black; feet slate-blue.

The type-specimen of this extremely rare species was procured by Sir Godfrey Lagden in Ashanti in 1883, and, so far as I am aware, has remained unique till it was again met with by the Ruwenzori Expedition in 1906.

Its occurrence in the highlands of Ruwenzori is very remarkable and of the greatest interest. The present specimen, an adult female, differs from the type only in having
the throat of a less brilliant orange-yellow and in being slightly smaller. The type is no doubt a male.

The measurements are as follows:—

_Type_ [♀♂]. Ashanti.—_Wing 4·6; tail 4·15 inches._

♀. E. Ruwenzori, 9000 ft.—_Wing 4·4; tail 4·3 inches._

Several additional specimens have more recently been procured by Herr R. Grauer on the higher slopes of the Mufumbiro Volcanoes, which lie to the west of Lake Kivu.

[A single female specimen of this beautiful Bush-Shrike was obtained by Mr. Gerald Legge in the Mubuku Valley at an altitude of 9000 feet. It was seen among the tops of some tall trees in company with another bird, probably the male, which unfortunately escaped. These examples were the only ones seen. The ovaries of this female were slightly enlarged.—_R. B. W._]

_Laniarius major_ (Hartl.).


a. ♀. 80 miles W. of Entebbe, 3500 ft., 1st Dec. [No. 1022. _D. C._]

b. ♂. 100 miles W. of Entebbe, 4000 ft., 6th Dec. [No. 50. _R. E. D._]


_Adult male and female._ Iris reddish-brown or dark hazel; bill black; feet slate-grey or black.

[The Greater Bush-Shrike was met with here and there between Entebbe and Ruwenzori, and on the mountains it was occasionally met with up to an elevation of 6500 feet.—_R. B. W._]

_Laniarius lühderi_ (Reichenow).


_Dryoscopus coronatus_ Sharpe, P. Z. S. 1874, p. 205, pl. xxxii. fig. 2 [Gaboon].

_Laniarius castaneiceps_ Sharpe, Ibis, 1891, pp. 445, 598 [Mt. Elgon].


_Adult male._ Iris dark brown; bill black; feet blue-grey.

_Adult female._ Iris crimson; bill and feet black.

In the figure of this species given in the ‘Proceedings of the Zoological Society,’ the crown is incorrectly coloured, and should be of a dark chestnut, quite different from the breast. In the male (No. 3609) the light tips of the median wing-coverts are mostly pale yellow; one of the females (No. 537) shows traces of yellow, but in the second female (No. 557), which is marked ‘breeding,’ the tips of the median wing-coverts are pure white, as is the case in all other specimens in the British Museum.
Dr. Sharpe has described an immature female (the type of *I. castaneiceps*) as having the "median wing-coverts dusky, tipped with white, slightly tinged with yellow, and forming a band"; so probably the yellow tips to these feathers in the male in the present collection indicate traces of immaturity.

[A few examples of Lühder's Bush-Shrike were seen in the Mpanga Forest, east of Ruwenzori.—*R. B. W.*]

**Dryoscopus malzaci** Heugl.

*Dryoscopus cinerascens* Reich, Vög. Afr. ii. p. 596 (1903); Jackson, Ibis, 1906, p. 552 [Toro; Ruwenzori].

*Dryoscopus malzaci* Grant, Ibis, 1907, p. 588 [Baro River].

a. ♂. 120 miles W. of Entebbe, 4200 ft., 8th Dec. [No. 15050. D. O.]
c. ♀. 6000 ft., 1st Feb. [No. 2131. G. L.]
d, e. ♂ ♀. 7000 ft., 14th March. [Nos. 3213, 3214.]

**R. B. W.**


[A few examples of this Bush-Shrike were seen at the north and south ends of Ruwenzori among the acacia-trees. On the mountains it was seen in the Luimi and Mubuku Valleys as high as 6500 ft., but it was always rather a rare bird. It has a very curious note, quite unlike that of any other Shrike.—*R. B. W.*]

**Dryoscopus nandensis** Sharpe.

*Dryoscopus nandensis* Sharpe, Ibis, 1901, p. 41, pl. ii. fig. 1 [Nandi].


Iris dark brown; bill black; feet dull flesh-colour.

The type of this species from Nandi is a somewhat immature bird, as may be seen by the buff margins to some of the secondary-quills and the buff feathers among the axillary plumes, as well as the pale horn-coloured tip and edges of the lower mandible.

In the adult the inner margins of the quills and the axillary plumes are greyish-white and the lower mandible is entirely black.
Mr. Woosnam states that this Puff-back Shrike was shot among the tree-tops and that the specimen procured was the only one met with during the journey.

**Dryoscopus affinis** (G. R. Gray).


Iris orange; bill black; feet grey.

This specimen, with its white lower back and pale grey rump, is a typical example of *D. affinis*, which, according to Reichenow, is the East African representative form. As already remarked in my paper referred to above, it is very doubtful whether the West African examples, which have been separated under the name of *D. senegalensis* (Hartl.), are really distinct from *D. affinis*.

[A single example of this Puff-back Shrike was obtained in the Congo Forest near Mawambi, but its note was frequently heard high up in the trees.—R. B. W.]

**Dryoscopus holomelas** Jackson.

*Dryoscopus holomelas* Jackson, Bull. B. O. C. xvi. p. 90 (1906); id. Ibis, 1906, p. 551 [Ruwenzori].


Iris dark brown or reddish-brown; bill and feet black.

This small-billed species is quite distinct from *D. leucorhynchos* (Hartl.), and has the black plumage of a rather duller and greyer shade, while in the latter it is purplish-black.

All the specimens procured by the Expedition appear to be fully adult birds with black bills.

[This Black Bush-Shrike was found on Ruwenzori at elevations of from 6000 to 9000 ft. It is really a bird of the forest-zone, but it is occasionally met with lower down as well as in the bamboo-zone above. It has the most marvellously versatile range of notes it is possible to imagine. From the depths of some tangled mass of creepers one might hear, first a low harsh scraping or chattering sound, followed by some of the most beautiful flute-like notes. After a moment or two of silence an
extraordinary clicking sound would commence (such a sound as is made by quickly bending and letting fly the tip of a strong quill tooth-pick), followed by a succession of quick high-pitched piping notes. A search for the performer usually resulted in finding nothing, so cunning were these birds in sneaking away through the undergrowth without being seen, and it was some time before we discovered the author of these strange noises.—R. B. W.]

**Dryoscopus leucorhynchus** Hartl.


a. ♂. Fort Beni, Semliki Valley, 3000 ft., 18th July. [No. 3502. R. B. W.]

Iris dark brown; bill and feet black.

The members of the Expedition did not recognize the differences between this species and *D. holometas*, which was met with on the west as well as on the east side of Ruwenzi, and consequently they did not trouble to procure a series of specimens. Dr. Reichenow states that the white bill in this species is a characteristic of the very old bird; but this is clearly an error, as all the specimens in the British Museum with a white bill are obviously quite young, and in one from Efulen, Cameroon (*Bates Coll.*), the tail is only partially grown.

**Lanius intercedens** Neumann.

*Lanius excavitorius intercedens* Neumann, J. f. O. 1905, p. 228 [Hawash Valley to Victoria Nyanza].

*Lanius intercedens* Grant, Ibis, 1907, pp. 590, 591.


Adult male and female. Iris dark brown; bill and feet black.

[Neumann's Long-tailed Grey-backed Shrike was very numerous all through the acacia-country around the south end of Ruwenzi and in the upper part of the Semliki Valley. It was a conspicuous object, even from a distance, perched on the topmost bough of an acacia-tree, or flying, as they do, in a perfectly straight line from one tree to another. Its low note has a curiously musical sound, like several notes in harmony. —R. B. W.]
Lanius Mackinnoni Sharpe.


*Adult male and female.* Iris dark brown; bill and feet black.

The specimens killed in August are in very worn plumage and in full moult, the old feathers of the back being much browner than the new ones. The collection also contains specimens in partial moult (chiefly the tail-feathers) procured in January, February, and March. A female killed in December [No. 48] is marked “breeding.”

[A few examples of Mackinnon’s Shrike were met with on Ruwenzori up to the forest-line at an elevation of 6500 ft., but they were not numerous. They were also seen in some of the clearings in the Eturi Forest between Fort Beni and Irumu.—R. B. W.]

Lanius humeralis Stanley.


*Fiscus humeralis* Jackson, Ibis, 1906, p. 550 [Toro].


*Adult male.* Iris dark brown; bill black; feet dark grey or black.

Dr. Reichenow considers that the representatives of this species, ranging from Angola to the Lake District, should be separated under the name of *L. h. congicus*, on account of the markings of their outer tail-feathers, which are said to be black with only the tip and outer web white. In this respect the specimen (No. 272) from S.E. Ruwenzori agrees with the description of *L. congicus* and differs from most East African specimens of *L. humeralis* in the British Museum, which have the greater part of the outer tail-feathers white. These range from North Abyssinia southwards to Natal and westwards to Victoria Nyanza. There is a large series of this species in the Jackson Collection from Kikuyu, Eldoma Ravine, Nandi, Elgeyu, Mt. Elgon, Entebbe. and Toro, and, among these, specimens are to be found from several localities with the

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outer tail-feathers marked as in _L. conicus_. Of the two adult males from Eastern Ruwenzori, one must be referred to typical _L. humeralis_ and the other to _L. conicus_, if the difference in the markings of the tail-feathers is to be regarded as of subspecific value, but it seems doubtful if this character is of any great importance. It must, however, be added that in the British Museum there are no specimens from the Congo district for comparison.

[A few examples of the Eastern Fiscal-Shrike were seen on the east side of Ruwenzori, but were not met with above an elevation of 5000 ft.—_R. B. W._]

**Family Sylviiidae.**

_Melocichla mentalis_ (Fraser).


a. _♂_. Entebbe, 3500 ft., 20th Nov. [No. 1. _R. E. D._]
b-e. _♀_. 100–130 miles W. of Entebbe, 4000 ft., 6th–9th Dec. [Nos. 31, 33, 41. _R. E. D._; 1053. _D. C._]
k-n. _♂_. Mokia, S.E. Ruwenzori, 3400 ft., 8th–30th May. [Nos. 303, 393. _R. E. D._
d. 1576. _D. C._; 3358. _R. B. W._]

_R. E. D._; 1628, 1629, 1630, 1713, 1714. _D. C._; 3477. _R. B. W._]
v. Adult. Mokia, S.E. Ruwenzori, 3400 ft., 8th July. [No. 47. _R. E. D._
w. _♂_. Fort Beni, Semliki Valley, 3000 ft., 20th July. [No. 2417. _G. L._

Iris cream-colour, yellow, or light brown; bill black, basal part of the lower mandible white or pale slate-colour; feet varying from slate-blue to dark grey.

The two subspecies of this large Grass-Warbler have already been discussed at some length in my paper on the birds from the Sobat and Baro Rivers quoted above. The splendid series procured by the Expedition, and representing the greater part of the year, includes several immature examples. These may be recognized by the narrow sandy margins to the feathers of the occiput, nape, and mantle, as well as to the secondary quills, but in other respects the plumage is similar to that of the adult.

[This species was seen at Entebbe and throughout the journey to Ruwenzori. It was not uncommon at the north and south ends of the range and was also met with in the Semliki Valley, but it was never seen on the mountains.—_R. B. W._]
Cisticola rufa (Fraser).


b. ♂ . 120 miles W. of Entebbe, 4000 ft., 8th Dec. [No. 3038. *R. B. W.*]
e. ♂ . Mokia, S.E. Ruwenzori, 4000 ft., 8th May. [No. 1520. *D. C.*]

Iris pale brown or olive-brown; bill olive-brown, yellowish-brown, or black (in May); feet light brown.

[The small Rufous Grass-Warbler was obtained near Entebbe and a few were seen at the north end of Ruwenzori. A single specimen was killed at the south end of the range on the bare grassy foot-hills. It was by no means a common bird.—*R. B. W.*]

Cisticola terrestris (Smith).


Iris pale brown, olive-brown, or hazel; bill black, base of lower mandible grey; feet light flesh-colour or pale brown.

[The small Terrestrial Grass-Warbler was a very common species on the plains around the south end of Ruwenzori, especially in the flat open country, where there was no bush. Anyone who has travelled in Africa must be familiar with these little birds, which, rising suddenly from the grass, fly up into the air, and, circling round and round, utter a continuous clicking sound. Sometimes they rise to such a height that they are lost to sight, but even then their clicking note can still be distinctly heard.—*R. B. W.*]

Cisticola carruthersi Grant.


a. ♂ ♀. Mokia, S.E. Ruwenzori, 3400 ft., 17th June. [No. 1640. *D. C.* Type of the species.]

Iris pale brown; bill black; feet pale brown.

This species is allied to *C. lugubris,* but may be at once recognized by the following points:—The bill is long and slender (as in the genus Camaroptera); the outer webs of the primary-quills are brownish (not rufous); and the whole upper surface of the tail-feathers is black tipped with white, while on the under surface the wide subterminal black bands are scarcely distinguishable from the greyer basal portion of the feathers. Total length ca. 4’8 inches; culmen 0’58; wing 2’2; tail 2’05; tarsus 0’82.
CISTICOLA ERYTHROPS (Hartl.). (Plate XIX. fig. 11, egg.)

*Cisticola erythropus* Reich. Vög. Afr. iii. p. 568 (1905); Sharpe, Ibis, 1908, p. 317 [Cameroon].

b. ♂. 150 miles W. of Entebbe, 5000 ft., 12th Dec. [No. 1057. D. C.]
e, f. ♂♀. Mokia, S.E. Ruwenzori, 3400 ft., 28th April. [Nos. 3286, 3287. R. B. W.]
g, r. ♂. Mokia, S.E. Ruwenzori, 3400 ft., 3rd & 4th June. [Nos. 421. R. E. D.;
3454. R. B. W.]
s. ♂. Butagu Valley, W. Ruwenzori, 4000 ft., 30th July. [No. 2440. G. L.]

Iris pale brown, hazel, or olive-brown; upper mandible black, lower whitish or blue-grey; feet pale brown or flesh-colour.

A pair of birds killed on the 28th of April (Nos. 3286 and 3287) had a nest with four eggs, which may be described as follows:—Of a regular oval shape and distinctly glossy. The ground-colour pale greenish-blue, spotted and blotched, especially round the larger end where the markings form a zone, with light red and purplish-grey. The four eggs measure respectively 69 × 51, 70 × 52, 70 × 53, 71 × 53 in.

The nest, which was placed in a low bush about three feet from the ground, was formed by fastening three leaves together; it was not domed, but lined with fine grass and the down of plants. It contained four slightly incubated eggs.

[The Buff-breasted Grass-Warbler was seen near Entebbe and throughout the journey to Ruwenzori. It was plentiful on the plains all round the mountains, but was never met with above 5000 ft. It seems chiefly to frequent the small water-courses and streams and the edges of swamps.—R. B. W.]

CISTICOLA LATERALIS (Fraser).


Iris light hazel; bill dark horn-colour; feet light brown.

(This Grass-Warbler was met with at the extreme north end of Ruwenzori on the spurs projecting into the Semliki Valley near Lake Albert, and also among the acacia-country in the Semliki Valley N.W. of the range. In the field it could be at once distinguished from *C. chubbi*—which it resembled in appearance—by its pleasant song, which is composed of loud clear notes, quite unlike that of any other species of *Cisticola*.
to be met with in the district. The two species were never found in the same locality, for C. *lateralis* was not seen above 2500 ft., while C. *chubbi* was never met with below 5000 ft.—R. B. W.]

**Cisticola emini** Reich.  


I have re-examined the large series of Grass-Warblers, which I at first considered to represent a distinct species and separated under the name of C. *woosnami*, and am now satisfied that they should have been referred to C. *emini* Reich.

The species is nearly allied to C. *pileata* Reich., and, like that species, has the lores white, but the bill is shorter, the culmen more curved, the under mandible always pale horn-colour, the top of the head browner, not chestnut, and the upperparts much lighter and of an olive-brown. Iris hazel; upper mandible black, lower mandible whitish horn-colour; feet flesh-colour.

The male, besides being larger than the female, is easily distinguished by having the sides and flanks olive-grey; in the female these parts are bright buff. This sexual difference in plumage explains the differences noted in the bird collected by Mr. Carruthers at Baraka (cf. ‘*Ibis,*’ 1908, p. 297).

Young birds have the upperparts, including the crown, uniformly reddish-brown; the chin, throat, and middle of the breast being washed with yellow, as is usual among young birds of this genus.

♂. Total length ca. 5·0 inches; culmen 0·58; wing 2·6; tail 2·1; tarsus 0·9.

♀. " " 4·7 " ; " 0·57; " 2·15; " 1·8; " 0·85.

[Although Emin’s Grass-Warbler so closely resembles C. *chubbi* in appearance, both its habits and notes are totally different and it frequents a different kind of country. C. *chubbi*, which is found on Ruwenzori from 5000 to 8000 ft., is essentially a bird of the elephant-grass country, and is never seen among the short grass and acacia-trees at the south end of the range. C. *emini* is met with only in the acacia-country.

* Types of *Cisticola woosnami* Grant.
at the foot of the mountains at an elevation of 3400 ft., and is never found among the elephant-grass at 5000 ft. The note of *C. emini*, which is a curious long trill, is quite unlike that of *C. chubbi*. Both species are very numerous where they occur, but they are never found together. *C. emini* is a bird of rather retiring habits and is not often seen, except when it utters its curious note. Then the male bird takes up a position in some high acacia-tree and, sitting motionless, gives forth every few minutes a long trill which seems to be ventriloquised, for, as a rule, it is most difficult to locate.—*R. B. W.*]

**Cisticola bellii** Grant.


The single male specimen is most nearly allied to *C. chubbi* Sharpe, and as in that species the lores are black, but it differs in the following particulars:—The bill is long and more slender; the back and wing-coverts greyer brown; the tail much shorter (i.e. 54 mm. as compared with 65 mm. in *C. chubbi*), with the middle pair of feathers conspicuously barred, and the outer pairs tipped with grey and edged with white (not with buff or clay-colour). The outer edges of the primary-quills are conspicuously rufous-brown.

From *C. emini* Reichenow, which is also found in the same locality, it may be at once distinguished by having the bill longer and less curved; the under mandible black instead of pale horn-colour; the lores black instead of white; and the back greyer, contrasting with the reddish-brown crown. Iris hazel; bill black; feet light brown.

Total length ca. 5.2 inches; culmen 0.65; wing 2.35; tail 2.05; tarsus 1.0.

This species is named in honour of Mr. W. A. Bell, one of the Subscribers to the Ruwenzori Expedition.

[A single specimen of Bell’s Grass-Warbler was shot in the papyrus-swamp on the edge of Lake Edward at an altitude of 3000 ft. In appearance it closely resembles *C. chubbi*, which is found on Ruwenzori from 5000–8000 ft., but is never seen in the vicinity of Lake Edward, where the present species occurs. *C. lateralis* again, which it also resembles, is found at the north end of the range and near Lake Albert, but inhabits the dry acacia-country. A third species, *C. emini*, which also resembles *C. bellii*, is found near the same locality, but inhabits only the dry acacia-country at the foot of the mountains and is never seen or heard near the papyrus-swamps on the lake. These three species of *Cisticola* (*C. chubbi*, *C. lateralis*, and *C. emini*) have distinctive and striking notes, which could not have failed to attract attention if heard in the papyrus-swamp. *C. bellii* was evidently breeding, as the testes in the male procured were much enlarged. Although only one specimen was obtained, others were seen in the same locality.—*R. B. W.*]
Cisticola chubbi Sharpe. (Plate XIX. fig. 14, egg.)


Iris chestnut, hazel, or dark brown; bill black; feet flesh-colour or light brown.

An immature male differs from the adult in having the upperparts reddish-brown, almost like the crown, the dusky subterminal spots to the tail-feathers very indistinct, and the tips of the feathers light rust-colour.

Two eggs are of a regular oval form and somewhat glossy. The ground-colour is pale blue, very finely marked all over, but especially round the larger end, with light red. They measure respectively .78×.56 and .75×.56 inch.

[Chubb’s Grass-Warbler was found on Ruwenzori from 5000 ft. up to the forest-line and in all the open clearings up to 8000 ft. On reaching Ruwenzori this species was one of the first birds to attract attention, not only on account of its numbers and its fearlessness of man, but because of its loud note and curious habits. The male birds seem to spend almost the whole day in singing, always two and sometimes three or four joining together. As a rule, however, two are to be seen on a tall grass-stem close together and facing each other. With tails spread they bob up and down, bowing to each other and turning round and round in the most amusing manner, while at the same time they keep up an incessant babel of noise. Suddenly one will fly off to another spot and be followed by the others, when the same performance is repeated. The song always sounds as if each of the birds was singing a different part, and for this reason we nicknamed them the “Duet Grass-Warbler.” A nest found in January was placed in a bunch of dead grass about 5 feet from the ground. It was domed and composed of blades of dead grass and roots, lined with finer grass and roots. It matched its surroundings so perfectly that it was quite invisible.—R. B. W.]
Cisticola rufopileata Reichenow.

*Cisticola rufopileata* Reich. Vög. Afr. iii. p. 561 (1905); Sharpe, Ibis, 1908, p. 318 [Cameroon].

*a, b. ♀. Mawambi, E. Congo Forest, 2500 ft., 30th Oct. [Nos. 3648, 3649. R. B. W.]

Iris hazel; bill black; feet flesh-colour.

[A pair of Reichenow's Rufous-headed Grass-Warbler was obtained in a small clearing in the Eastern Congo Forest near Mawambi; the song was very similar to that of *C. chubbi*.—R. B. W.]

Cisticola nuchalis Reichenow.


*a. ♀. 30 miles W. of Entebbe, 3500 ft., 25th Nov. [No. 3004. R. B. W.]*

*b. ♀. 120 miles W. of Entebbe, 4000 ft., 8th Dec. [No. 2025. G. L.]*

*c. ♀. Fort Portal, 5000 ft., 26th Sept. [No. 3616. R. B. W.]*

Iris light brown; bill black; feet brown or flesh-colour.

There is a large series of specimens of *C. nuchalis* in Mr. Jackson's collection, which have also been examined.

[This Grass-Warbler was seen near Entebbe and on the plains on the east side of Ruwenzori, where it was not uncommon.—R. B. W.]

Cisticola lugubris (Rüpp.).


Iris pale brown or hazel; bill black; feet pale brown or pale flesh-colour.

Eight of the specimens procured proved to be males; in the other two the sex was not ascertained.

No. 1657, which is almost certainly the young of this species, has the general colour of the upperparts reddish-brown, the feathers of the crown, as well as those of the mantle, being streaked with black; the middle tail-feathers and the margins of the outer pairs reddish-brown; and the flanks and under tail-coverts buff, much brighter than in the adult.

[The Mournful Grass-Warbler was met with occasionally on the plains at the south end of Ruwenzori, but was a very uncommon bird. A few examples were also seen on the edge of the Eturi Forest near Fort Beni. The song of this bird is totally different]
from that of any other species of *Cisticola*, and resembles the last half of the song of the Yellow Bunting (*Emberiza citrinella*).—*R. B. W.*

**CISTICOLA STRANGEI** (Fraser).


*a, b.* Near Entebbe, 3500 ft., 20th & 26th Nov. [Nos. 2. R. E. D.; 1012. D. C.]


*t, v.* Mokia, S.E. Ruwenzori, 3400 ft., 18th–21st June. [Nos. 1644, 1662. D. C.]

Iris light brown or hazel; bill, in the male, blackish, with the lower mandible partly or entirely whitish horn-colour; in the female, light horn-colour; legs varying from flesh-colour to pale brown.

In the present collection the females and immature males differ somewhat from the adult males, and it is with some hesitation that I have referred them to *C. strangei*. They have the occiput and nape more or less rufous-brown, the feathers of the crown and upperparts deep black widely margined with pale rufous-brown, and the flanks and under tail-coverts of a rather bright pale buff. In males of typical *C. strangei* procured in the same locality (S.E. Ruwenzori) and at the same season, the upperparts are altogether darker, the feathers of the crown and back of a browner black margined with dark greyish-brown, while the flanks and under tail-coverts are pale greyish-buff. It should be noted that the adult males are all in more or less worn plumage, whereas the two immature males and five females are in freshly moulted plumage. The bill of the male is larger and blacker than that of the female.

**Males.** Wing 2·7–2·75 inches.

**Females.** Wing 2·25–2·35 inches.

[Strange’s Grass-Warbler was seen near Entebbe and during the march to Ruwenzori. It was numerous on the plains all round the mountains, but was never seen above an altitude of 3400 ft. It was one of the most conspicuous species of the genus *Cisticola*, for it has a loud note, which is often uttered while the bird is hovering about above the grass.—*R. B. W.*]

**SCHENNICOLA APICALIS** (Cabanis).


*a.* Adult. 40 miles W. of Entebbe, 3500 ft., 27th Nov. [No. 1015. D. C.]
c. s. South Ruwenzori, 3000 ft., 20th June. [No. 2410. G. L.]

Iris light brown or hazel; upper mandible blackish, lower pale horn-colour; feet brown or light brown.

The male bird procured by Mr. Legge on the 20th of June was breeding, and there is a note on the label stating that the sinews in the legs were like wire. This specimen is in very worn plumage and the feathers of the head and throat are in moult.

[The Fan-tailed Reed-Warbler was found all round Ruwenzori below 5000 ft., but not in the elephant-grass country. It was not uncommon in the Semliki Valley near Lake Edward.—R. B. W.]

Genus Bradypterus.

The species comprising this genus are of particular interest for the following reasons. They may be naturally divided into two sections:—

I. Possessing 12 tail-feathers, with the shafts moderately stiff and with the vanes normally developed.

B. brachypterus (Vieill.). S.E. & S. Africa.
B. sylvaticus Sundev. S. Africa.
B. nyasae Shelley. S.E. Africa (Nyasaland).
B. alfredi Hartl. C. Africa (Lake Albert: Ruwenzori).
B. babeculus (Vieill.). S.E. & S. Africa.
B. victorii Sundev. S. Africa.
B. cinnamomeus (Rüpp.). E. & C. Africa. Typical examples of this species from the mountains of Shoa, Mount Kenya, and Kikuyu possess 12 tail-feathers, but in a large series of specimens from Ruwenzori only 10 tail-feathers are found, though one example has the abnormal number of 11 (six on the right side and five on the left). It is thus evident that the birds from Ruwenzori, though differing in no way in plumage from specimens from Shoa, show symptoms of becoming gradually differentiated into a distinct form, a point which appears to be of the greatest interest. It will be seen that the specimen of B. cinnamomeus from Ruwenzori figured by Mr. Pycraft to show the ptérylography possesses only 10 tail-feathers. (See Appendix, text-figure 14, p. 455.)

II. Possessing 10 pointed tail-feathers, with stiff shafts and with narrow disintegrate webs.

B. barake Sharpe. C. Africa (Ruwenzori).
B. lopesi Alexander. W. Africa (Fernando Po).
B. camerunensis Alexander. W. Africa (Peak of Cameroon, 7000 ft.).
? B. castaneus Reichenow, W. Africa (Bangwa Dist., N. Cameroon). I have not been able to examine an example of this species, which appears to be nearly allied to B. barake.

It was, at first, my intention to separate the species with 10 tail-feathers under a new generic name, on account of the very different character of their tail-feathers.
which recall those of the genus *Stipiturus*, but the fact that in the species *B. cinna-
moreus* a somewhat intermediate type is found possessing either 10 or 12 tail-feathers,
seems to indicate that all the species must be considered co-generic.

**Bradypterus Barake** (Sharpe). (Plate XVI. fig. 3, ♂.)

*Phlexis rufescens* Sharpe (nee Sharpe, 1876), Bull. B. O. C. xiii. p. 9 (1902).


*Bradypterus barake* Sharpe, Ibis, 1906, p. 546 [Ruwenzori].

1152. D. C.; 3076. R. B. W.]


Iris dark brown or dark hazel; bill blackish, lower mandible mostly light horn-colour
or greyish; feet brown, light brown, or pale olive-green.

The birds are all fully adult and differ in no way from the type-specimen.

This species appears to be very closely allied to *B. castaneus* Reich. from Cameroon,
but the latter is described as having the throat white.

[Baraka's Reed-Warbler was found on Ruwenzori from an elevation of 6500 up to
8500 ft., and inhabited the darkest parts of the forest-zone, especially where there
was dense undergrowth. Like *Bradypterus cinnamomeus*, this bird always appeared
wet and draggled from creeping about among the dripping undergrowth. It seemed
very rarely to use its wings.—R. B. W.]

**Bradypterus cinnamomeus** (Rüpp.).

[Slwenzori].

*Bradypterus rufolavatus* Reich. & Neumann; Reich. Vög. Afr. iii. p. 582 (1905) [immature].

[Nos. 1117, 1157, 1183. D. C.]


Iris brown or hazel; bill blackish, lower mandible lighter; feet brown or light brown.

*An immature bird* [No. 1315] shot by Mr. Carruthers differs from the adult in
having the top of head and upperparts, except the wings and tail, olive-brown,
with scarcely a trace of rufous. The superciliary stripes, sides of the face, chin, and
throat, as well as the middle of the breast and belly, of a pale soiled yellowish colour. The pectoral band, which is interrupted by a yellow patch in the middle, as well as the sides and flanks, dark tawny brown. Wing 2.25 inches; tail 2.4. Iris dark hazel; bill black, yellow at the base of the lower mandible; feet very light brown.

Remarks on some points in the anatomy of this species by Mr. W. P. Pycraft will be found in the Appendix to this paper, p. 454.

[Rüppell's Reed-Warbler was found on Ruwenzori from an elevation of 6500 to 13,000 ft. It frequented the undergrowth, especially where it was densest, and was particularly numerous at about 10,000 ft., where the bottoms of the valleys were swampy and full of low rank vegetation. Among this it was always to be found creeping about and constantly uttering a single note, almost exactly like that of the Hedge-Sparrow. Both B. cinnamomeus and B. barakw have also a loud short song of stridulous notes, which they often utter with startling suddenness. One cannot fail to remark the striking resemblance of the song of these two birds to that of Cetti's Warbler (Cettia cetti), and their habits are exactly the same. Another marked point of resemblance is the extraordinary development of the leg-muscles and the tough wiry sinews—in fact, the three species are so much alike that one almost wonders they should have been separated generically.—R. B. W.]

**Bradypterus alfredi** Hartl. (Plate XVI. fig. 1, ?)


_ a. ?_. Mubuku Valley, E. Ruwenzori, 5000 ft., 5th April. [No. 2276. G. L.]

Iris dark brown; upper mandible black, lower slate-colour; feet brown.

I have compared this bird with the type-specimen in the Tring Museum, which was obtained by Emin at Njangabo, in Ndussuma, to the west of Lake Albert, and finds that they are quite similar. This species is new to the British Museum.

[A single specimen of this rare Reed-Warbler was obtained by Mr. Gerald Legge on the east side of Ruwenzori among the grass and dense vegetation below the forest-line at 5000 ft. It had the great development of leg-muscles and wiry sinews noticed in other species of the genus *Bradypterus* and in *Schoenicola apicalis.—R. B. W.*]

**Calamocichla nilotica** Neumann.


_ b. j imm._ Fort Beni, Semiliki Valley, 3000 ft., 24th July. [No. 3521. R. B. W.]

Iris dark brown; bill brown; feet dark grey or slate-blue.

Professor Neumann, who has recently devoted much time and attention to the study of this difficult group of birds, has referred both specimens in the present collection to a
new subspecies which he has called *Calamocichla ansorgei niloUca*. As pointed out by Professor Neumann, this form may be distinguished from *C. rufescens* Sharpe & Bouvier by the much larger hind claw, 11–12 mm. in length.

This Reed-Warbler occurs near Entebbe and all round Ruwenzori below 5000 ft. It is seldom seen, owing to its habit of keeping to the dense patches of elephant-grass and reeds, but its harsh raucous notes never fail to betray its presence.—R. B. W.

*Sylvia atricapilla* (Linn.).


*d. s. " " 7000 ft., 16th March. [No. 3225. R. B. W.]*

[The Blackcap was met with only on E. Ruwenzori at an elevation of from 6000–7000 ft. It had the iris hazel or dark brown; the bill blackish-brown, dark brown, or grey; and the feet grey, olive-grey, or Bluish-grey.—R. B. W.]

*Sylvia hortensis* Linn.


*a. s. 130 miles W. of Entebbe, 4200 ft., 9th Dec. [No. 1052. D. C.]*

*b. s. Mubuku Valley, E. Ruwenzori, 5000 ft., 16th March. [No. 205. R. E. D.]*

[The Garden-Warbler was seldom seen. The iris is dark brown or dark hazel; the bill black, lighter on the lower mandible; and the feet slate-colour or grey.—R. B. W.]

*Phylloscopus iversmanni* (Bonap.).


This appears to be an adult male of Eversmann's Willow-Warbler. Wing 2·9 inches. Both the remiges and rectrices are in moult.

*Phylloscopus trochilus* (Linn.).


*b. Mubuku Valley, E. Ruwenzori, 5000 ft., 16th March. [No. 207. R. E. D.]*

The female Willow-Warbler, shot in March, is in full moult.

*Apalis denti* Grant. (Plate XIV. fig. 3, 2.)


*a. Mpanga Forest, Fort Portal, 5000 ft., 16th Sept. [No. 521. R. E. D. Type of the species.]*
This species is most nearly allied to *A. rufogularis* (Fraser), but is distinguished by having a shorter bill, with the under mandible entirely black, the throat and chest of a paler and brighter brick-red, and the breast and belly pure white, without any trace of olive.

Iris hazel; bill black; feet flesh-colour.
Total length 4'3 inches; wing 1'9; tail 1'85; tarsus 0'72.

[A single specimen of this new species was shot by Mr. R. E. Dent in the top of a tall tree in the Mpanga Forest. It was the only specimen seen.—*R. B. W.*]

**Apalis affinis** Grant. (Plate XIV. fig. 2, a.)


*Apalis porphyrolema* Jackson (nec Reich. & Neumann), Ibis, 1906, p. 546 [Ruwenzori].

*a. b. c*. Mubuku Valley, E. Ruwenzori, 6000 ft., 11th January. [Nos. 88, 89.

**R. E. D. Types of the species.**

This Alpine species is most nearly allied to *A. porphyrolema* Reich. & Neum., but has the throat-patch of a much darker chestnut-colour.

Iris light hazel; bill black; feet light brown.
Total length about 4'5 inches; culmen 0'5; wing 2'0; tail 2'1; tarsus 0'7.

[During the first week of our stay on Ruwenzori Mr. R. E. Dent one morning shot four examples of this little bird out of a flock of six or eight individuals. They were seen in the top of a tall tree in the forest at 6000 ft. Two of them were much knocked about by the shot or splinters of wood, and, thinking that we were certain to procure many more specimens during our stay, only a pair was preserved. Unfortunately these proved to be the only ones met with by the Expedition. It is remarkable that the two new species of the genus *Apalis* should have been obtained by Mr. Dent under almost exactly similar circumstances.

*A. affinis* must be a very rare bird, and probably *A. denti* is equally so.—*R. B. W.*]

**Apalis caniceps** (Cassin).


*a. c*. Fort Beni, Semliki Valley, 3000 ft., 22nd July. [No. 3511. *R. B. W.*]

Iris light hazel; bill black; feet dark flesh-colour.

The characters of the genus *Apalis* require revision, for the present species certainly belongs to this genus and not to *Eremomela*. The tail is longer and graduated as in *A. thoracica* (Shaw & Nodd.) (the type of *Apalis*), and not short and square-ended as in *E. flaviventris* (Burch.) (the type of *Eremomela*).

[A single specimen was obtained on the edge of the Eturi Forest, at Fort Beni. It was breeding at the end of July.—*R. B. W.*]
Apalis Jacksoni Sharpe.


Iris dark brown; bill black; feet light brown.

The only example in the British Museum of this beautiful little Bush-Warbler is the type-specimen, which was procured by Mr. Jackson on Mount Elgon. His collector subsequently procured an adult male and two females at Kibiran, Toro.

[A few examples of Jackson's Bush-Warbler were met with in the Mpanga Forest, east of Ruwenzori. They were seen only in the tree-tops.—R. B. W.]

Apalis binotata Reichenow.


Iris light chestnut; bill black; feet light brown.

As pointed out by Dr. Sharpe, the sexes in this species differ slightly from each other in plumage; the bird described and figured by Dr. Reichenow with a white patch on either side of the throat being the male, while the female has a broad band of white on either side extending from the chin to the base of the throat.

The present specimen differs slightly from typical female specimens from Cameroon in having the white streak on each side of the throat reduced in width and the bill distinctly shorter (‘05 inch as compared with ‘06).

Female specimens from Toro in the Jackson Collection are indistinguishable from Cameroon birds.

[This species of Bush-Warbler was very plentiful in the Mpanga Forest.—R. B. W.]

Apalis personata Sharpe.

Apalis personata Reich. Vög. Afr. iii. p. 608 (1905); Jackson, ibis, 1906, p. 547 [Ruwenzori].


Iris hazel or light brown; bill black; feet brown, light brown, or flesh-coloured.

Three males (Nos. 106, 3226, 3237) have the hinder part of the crown mixed with olive-coloured feathers like those of the back. This appears to be a sign of immaturity;
but in other respects they resemble the adult, which has the entire crown sooty black. One male (No. 1112), apparently an old bird, has the black feathers of the crown separated from the olive-coloured mantle by a narrow slate-grey collar. Another male (No. 1143) has olive-green patches, instead of yellow, on either side of the black chest; this also is probably a character due to age, as the bird shows traces of the grey nuchal collar referred to in specimen No. 1112.

[The Masked Bush-Warbler was met with on Ruwenzori up to 9000 ft. and was numerous in the forest-zone, almost always frequenting the tree-tops, though it was also occasionally to be found among the undergrowth.—R. B. W.]

Apalis ruwenzorii Jackson. (Plate XIV. fig. 4, ♂.)


*a–d. ♂. Mukubu Valley, E. Ruwenzori, 6000–8000 ft., 13th–18th Jan.*


Iris hazel or light brown; bill black; feet brown or flesh-colour.

[The Ruwenzori Bush-Warbler was met with from 6500 ft. up to 10,000 ft., but it was rarely seen above 8500 ft. It was numerous in the forest-zone and lower margin of the bamboos, and was always to be found skulking about among the dense undergrowth or in some tangled mass of creepers hanging from the lower branches of a tree. This species was never seen in the tree-tops, while the two other members of the genus (*A. personata* Sharpe and *A. affinis* Grant) found on Ruwenzori frequent the tree-tops almost entirely.—R. B. W.]

Apalis pulchella (Cretzschm.).

*Phyllolais hilariegardae* Sharpe; Grant & Reid, Ibis, 1901, p. 649 [S. Abyssinia].

*Phyllolais pulchella* Grant, Ibis, 1902, p. 419 [White Nile]; Jackson, Ibis, 1906, p. 548 [Toro].


*Apalis pulchella* Reich. l. c. p. 610.


Iris hazel or light brown; bill brown, light brown, or flesh-colour; feet pale brown or flesh-colour.

The fine series of this species in the present collection makes it clear that P. hildegardae Sharpe must be regarded as a synonym; the supposed different colour of the bill, which I at one time regarded as a distinctive character, being evidently of no importance.

[The Beautiful Bush-Warbler was plentiful all around the south end of Ruwenzori, both on the plains at the foot of the mountains and in the Semliki Valley. Its favourite haunt was the tops of the smaller acacia-trees.—R. B. W.]

**Eminia leptida** Hartlaub.


a, b. & ♀. Mubuku Valley, E. Ruwenzori, 6000 and 7000 ft., 5th & 9th Jan. [Nos. 66, 80. R. E. D.]


q. ♀. Fort Beni, Semliki Valley, 3000 ft., 18th July. [No. 3503. R. R. W.]

**Adult.** Iris hazel, reddish-brown, or chestnut; bill black; feet light brown or flesh-colour.

**Immature.** Differs from the adult only in having the chestnut on the throat and under wing-coverts paler. Iris grey; bill black; feet pale yellow.

[A few examples of Emin's Bush-Warbler were found on Ruwenzori up to 7000 ft., but they were uncommon. They were plentiful on the plains below the mountains, frequenting the more dense vegetation along the banks of streams. Two nests were found, one at the beginning of May and the other at the end of July, but both contained young birds. One nest was suspended from a single creeper hanging over a stream, under a great mass of tangled vegetation and creepers forming quite a tunnel. The other was in a very similar situation, but was placed among the creepers and not suspended. Both nests were partially domed and composed of fine roots and moss. This bird has a short but very loud song composed of flute-like notes.—R. B. W.]

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SYLVIILLA BAERAKI Sharpe. (Plate XIX. fig. 6. egg.)

Sylviella baerakii Sharpe, Bull. B. O. C. vii. p. 6 (1897) [Entebbe]; Grant, Ibis, 1900, p. 156.
Sylvietta virens Reich. Vög. Afr. iii. p. 631 (1905) [part.].


Iris hazel or light brown; bill dusky horn-colour; feet flesh-colour or brown.

This species can be distinguished from fully adult examples of the very closely allied S. virens (Cassin) by having the superciliary stripe, as well as the chin and throat, dull whitish instead of rufous, the chest less rufous, and the upper breast greyer. Less mature examples of the two forms appear to be indistinguishable. The West African S. virens is a rather more brightly coloured bird on the throat and chest.

The specimens in the present collection are no doubt fully adult, and No. 3510 is marked "breeding" by Mr. Woosnam.

The egg figured forms part of Mr. F. J. Jackson's collection.

[A few examples of Baraka's Crombec were seen in the Eturi Forest between Fort Beni and Irumu.—R. B. W.]

SYLVIILLA TOROENSIS Jackson.

Sylvietta toroensis Jackson, Ibis, 1906, p. 548 [Kibera R.].


Adult. Iris hazel; bill horn-colour; feet brown.

Immature. Differs from the adult in having the upperparts strongly washed with dark olive, the lores greyish, the sides of the throat pale yellowish, and the chest grey washed with yellowish in the middle. Iris olive-brown; bill horn-colour; feet light greenish-brown.

[A few examples of the Toro Crombec were seen in the Mpanga Forest, E. of Rwenzori.—R. B. W.]

SYLVIILLA LEUCOPHYRY Sharpe.

Sylvietta leucophyrys Jackson, Ibis, 1906, p. 549 [Rwenzori].


[Nos. 146, R. E. D.; 1214, 1224, D. C.; 2164, G. L.]


[Nos. 179, 192, 193, R. E. D.; 3242, 3243, 3260, R. B. W.]


Iris hazel, dark chestnut, or brown; bill and feet brown or flesh-colour.

One immature male (No. 1140) differs from the rest of the series of specimens in having the uppersides more olive and less brownish, especially on the rump.

An immature bird (No. 146) differs chiefly from the adult in having the eyebrow-stripe less developed and the breast smoky grey, the middle of the throat being suffused with the same colour.

[The White-eyebrowed Cromboc was found on Ruwenzori up to 8500 ft., frequenting the dense undergrowth both in the forest-zone and below it. It was also found in the Mpanga Forest.—R. B. W.]

Sylviella carnapi Reichenow?

Sylviella brachyura Grant, Ibis, 1900, p. 155 [part., Equatorial Africa]; id. Ibis, 1907, p. 598.


a, b. $\sigma$. Mokia, S.E. Ruwenzori, 3400 ft., 26th & 29th April. [Nos. 1436, 1456, D. C.]

c-k. $\sigma$ &. Mokia, S.E. Ruwenzori, 3400 ft., 1st–24th May. [Nos. 1509, D. C.; 2375, G. L.; 3300, 3352, 3389, 3402, 3407, 3408, R. B. W.]

d. $\sigma$. Mokia, S.E. Ruwenzori, 3400 ft., 7th June. [No. 438, R. E. D.]

This form ranges from the Bahr-el-Zeraf and Bahr-el-Jebel to Lake Edward. It appears to be the same as $S. \text{carnapi}$ Reich, from Cameroon, but I have no birds from that locality for comparison. Dr. Reichenow’s description, however, seems to agree with the birds from Mokia. They may be described as follows:—

Adult male and female. Most nearly allied to $S. \text{brachyura}$ L., but differ in having the chin, throat, breast, sides, and flanks of a much richer rufous-buff, and the bill distinctly shorter. The upper surface seems to be of much the same brownish-grey colour in both forms.

$\sigma$. Wing 2.25–2.35 inches.

$\varphi$. 2.05–2.2

Iris hazel, chestnut, or light brown; bill dark brownish horn-colour; feet flesh-colour or very pale brown.

With a large series of specimens of both sexes the difference between the two is at once apparent.
The above-mentioned specimens are not so richly coloured on the underparts as in *S. olivis* Alexander [cf. Bull. B. O. C. xxiii. p. 16 (1908)].

[This small species of Crombec was not uncommon in the acacia-country on the plains around the south end of Ruwenzori and in the Semliki Valley near Lake Edward. It seemed to frequent the acacia-trees almost exclusively.—R. B. W.]

**Sylviella denti** Grant. (Plate XIII. fig. 3, ♂.)


*Sylviella batesi* Sharpe, Ibis, 1908, p. 319 [R. Ja, Cameroon].

_a. ♂_. 10 miles N.W. of Fort Beni, Semliki Valley, 3000 ft., 10th Aug.  [No. 3539. B. B. W. Type of the species.]

This species is most nearly allied to *S. flaviventris* Sharpe, from which it differs chiefly in being somewhat larger; in having both mandibles entirely black; the back dark olive without any brownish tinge; the feathers surrounding the eye and on the cheeks whitish with black tips, giving these parts a distinctly spotted appearance; the chest and breast dull olive-green and the belly and rest of the underparts pale yellow. Iris hazel; bill black; feet reddish-brown. Total length about 3 inches; wing 2; tail 0·75; tarsus 0·66.

This species ranges to the Southern Cameroon, whence it has been described as *S. batesi*.

[The single example of Dent's Crombec obtained near Fort Beni, on the edge of the Eturi Forest, was the only one seen.—R. B. W.]

**Camaroptera superciliaris** (Fraser).


Iris dark brown; bill black; feet brown.

The discovery of this species in the Eastern Congo Forest greatly increases its known range. It was known to occur in West Africa from the Gold Coast to the Kamma River.

[This example of the Yellow-browed Bush-Warbler was the only one met with.—R. B. W.]

**Camaroptera griseoviridis** (v. Müll.). (Plate XIX. fig. 10, egg.)

*Camaroptera chrysoconemis* Licht.; Grant & Reid, Ibis, 1901, p. 648.


Iris hazel; bill black; feet flesh-colour or light brown.
The egg figured forms part of Mr. F. J. Jackson's collection.

[The Grey-breasted Bush-Warbler was very numerous on the plains all round the mountains, but was never seen on Ruwenzori above 5500 ft. It was met with throughout the journey across the Congo Forest, and was seen as far down the Congo as Coquilhatville. Its habits are very similar to those of the Common Wren, and its note, which is continually uttered, is almost identical with that of the Common Stonechat.—R. B. W.]

**Stiphroknis xanthogaster** Sharpe.


Iris dark brown; bill black; feet grey.

An immature male assuming the adult plumage (?) has the upperparts strongly washed with olive and the wings and tail in moult, the former being nearly complete, while in the latter the feathers are all less than an inch in length. The underparts resemble those of the adult male, but many of the feathers of the chin and throat are in moult.

This species was recently described by Dr. Sharpe from specimens procured by Mr. G. L. Bates in Southern Cameroon.

[A single specimen of this beautiful Orange-breasted Bush-Warbler, the only one seen, was obtained in the Congo Forest near Mawambi. It was hopping about among the undergrowth.—R. B. W.]

**Hylia prasina** (Cass.).

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R. E. D.; 3635. R. B. W.]

Iris brown, dark hazel, or chocolate; bill dark brown or black; feet olive-green.
A male (No. 573) and a female (No. 1768) are marked “breeding.”
Some important notes on this species will be found in my paper published on
Mr. Carruthers’s collection from the Upper Congo (‘Ibis,’ 1908, pp. 292–293).
[This Tree-Warbler was met with in the Congo Forest throughout the journey;
also in the Mpanga Forest to the east of Ruwenzori.—R. B. W.]

**Prinia mystacea** Rüpp.


a–c.  czy.  Near Entebbe, 3500 ft., 20th–27th Nov.  [Nos. 3. R. E. D.; 1006,
1114. D. C.]

d–g.  czy et c. imm.  80–120 miles W. of Entebbe, 3500–4000 ft., 2nd–8th Dec.

h.  czy.  Mubuku Valley, E. Ruwenzori, 5000 ft., 5th April.  [No. 231. R. E. D.]


R. E. D.; 3337, 3341, 3376, 3414, 3415. R. B. W.]

w.  x.  czy.  Fort Beni, Semliki Valley, 23rd July.  [Nos. 2425, 2426. G. L.]

Iris hazel; bill brown or black; legs flesh-colour or brown.
A quite young bird has the brown colour of the upperparts washed with rufous,
and the chin, throat, and chest pale yellowish-white.
[The Tawny-flanked Wren-Warbler was numerous on the plains all around Ruwen-
zori, but was never seen on the mountains above 5000 ft. It seemed to frequent the
acacia-trees more than the grass, and when disturbed always flew to the top of a
neighbouring acacia-tree.—R. B. W.]

**Burnesia melanops** Reichenow & Neumann.


a, b.  czy.  Mpanga Forest, Fort Portal, 5000 ft., 16th Sept.  [Nos. 3570, 3571.
R. B. W.]


d, e.  czy.  5500 ft., 7th March.  [Nos. 191, 192.
R. E. D.]

[Image: zoological_results_of_the_ruwenzori_expedition_0366_0381.png]
Iris yellow or light hazel; bill black; feet black or greyish-brown.

[A few examples of the Black-faced Wren-Warbler were seen in the Mubuku Valley below the forest-line, but the species was decidedly rare there; at the north end of the range it was numerous among the rough country and straggling forest at 6500 ft. It was also plentiful in the Mpanga Forest, E. of Ruwenzori, frequenting the thick undergrowth, among which it might always be heard, but was very seldom seen.—R. B. W.]

*Burnesia bairdi* (Cass.).


*a, b, c, d*. 20 miles N.W. of Fort Beni, Semliki Valley, 3000 ft., 11th Aug. [Nos. 3542, 3543. R. B. W.]

The birds from Fort Beni agree perfectly with typical specimens from Cameroon.

[Baird's Wren-Warbler was plentiful in the Eturi Forest between Fort Beni and Irumu, but it was not seen further west than Mawambi. It was usually found among the dense vegetation on the edge of the forest around the native-clearings and villages.—R. B. W.]

*Burnesia reichenowi* Hartl.


Burnesia reichenowi* Jackson, Ibis, 1906, p. 549 [Toro].

*a, c*. Mpanga Forest, Fort Portal, 5000 ft., 14th–24th Sept. [Nos. 3559, 3610, 3611. R. B. W.]


*b, m*. Fort Beni, Semliki Valley, 3000 ft., 23rd July. [Nos. 1743, 1744. D. C.]

Iris bright chestnut; bill black; feet reddish-brown.

[Reichenow's Wren-Warbler was found on Ruwenzori up to 6500 ft., the lower limit of the forest-zone, and inhabited the more open cultivated ground. It was also found on the plains all around the mountains, and at Fort Beni on the edge of the Eturi Forest. I have often heard this little bird singing beautifully, late in the evening and in the early morning.—R. B. W.]
Family Turdidae.

Geocichla piaggii (Bouv.). (Plate XIX. fig. 3, egg.)


Iris dark hazel; bill black; feet light brown.
The immature bird has the upperparts browner than in the adult, the feathers of the head and back streaked along the shaft with pale rufous, and there is a V-shaped black band at the extremity of the feathers on the cheeks, sides of the throat, chest, breast, and flanks.

Two eggs are of a regular oval shape and somewhat glossy. The ground-colour is pale greenish-blue, marked all over with small blotches and spots of chestnut and purplish-grey. They measure respectively 1·1 x 0·78 and 1·05 x 0·76 inch.

Both eggs are considerably damaged, the female having been shot on the nest.

[The Central-African Ground-Thrush was met with on Ruwenzori at altitudes of from 5000 to 9000 ft. It appeared chiefly to frequent the upper parts of the forest-zone, but it was a rare bird and seldom seen. A nest, found on the 10th of March at an altitude of 8600 ft., was placed in the fork of a small tree about 5 feet from the ground, and resembled that of the Blackbird. It contained two eggs.—R. B. W.]

Turdus abyssinicus Gmel.


Iris dark hazel or dark brown; eyelids yellow; bill orange; feet yellow or yellowish-brown.
I cannot distinguish the Ruwenzori birds, which have been named *T. baraka*, from typical *T. abyssinicus*. Dr. Sharpe, in a note in Mr. Jackson's paper in 'The Ibis' for 1906, states that he has arrived at the same conclusion.

[The Abyssinian Thrush has the widest range of any bird on Ruwenzori; it was found in the hot tropical valleys at 6000 ft., almost side by side with its near relative *T. centralis* of the plains, and was also met with all the way up the mountains to the snow-line. One was actually shot on the Mubuku glacier, but unfortunately it fell down a crevasse and was lost. The species was plentiful at 10,00 ft., and quite a number were seen between 12,000 and 13,000 ft. An old nest was found at an altitude of 11,500 ft.; it was placed in the fork of a tree-heath. This species certainly breeds on Ruwenzori up to an altitude of 12,500 ft., and probably much higher.—*R. B. W.*]

*Turdus centralis* Reichenow.


_Merula centralis_ Jackson, Ibis, 1906, p. 542 [Toro].

q. ♂ . Fort Beni, Sembliki Valley, 3000 ft., 21st July. [No. 2420. *G. L.*]

The majority of the specimens in the present collection, but not all, appear to be slightly darker on the upperparts than typical examples of *T. pelios* from Abyssinia.

[This darker form of the Ethiopian Thrush was met with plentifully at Entebbe and throughout the journey to Ruwenzori. It was also found all round the foot of the mountains and at Fort Beni on the edge of the Eturi Forest. It frequents almost exclusively the banana-plantations and cultivated lands, and probably obtains much of its food from the fresh deposits of irrigation. It was found in the lower valleys of Ruwenzori up to 5000 ft., above which its place was taken by *T. abyssinicus*.—*R. B. W.*

_Callene* æquatorialis* Jackson.

_Callene æquatorialis* Jackson, Bull. B. O. C. xvi. p. 46 (1905) [Lumbwa].

The type-specimen, which was procured by Mr. Jackson at Kericho, in Lumbwa, _vol. xix.—part iv. No. 49.—March, 1910._
appears to be an adult male, but the sex is not indicated. There are three adult female specimens from Toro in the Jackson Collection which agree perfectly with the adult female from Mpanga, and all differ slightly from the type in having rather more white on the middle of the breast—a difference which is probably due to sex, or may be individual.

This species is easily distinguished from *C. cyornithopsis* Sharpe, from Cameroon, by its rust-red flanks and under tail-coverts.

[A few of these little birds were found in the Mpanga Forest, where they appeared to inhabit the undergrowth only.—*R. B. W.*]

**Cossypha archeri** Sharpe. (Plate XVI. fig. 2, ♂.)

*Cossypha archeri* Sharpe, Bull. B. O. C. xiii. p. 9 (1902) [Ruwenzori].


This species was first described from a male procured by Mr. Geoffrey Archer. The female does not differ in plumage from the male, but is slightly smaller—wing 2:75—2:9 inches.

[Archer's Robin-Chat was found on Ruwenzori from 6000 ft. up to 13,000 ft. It was one of the few birds that were fairly numerous in the bamboo-zone. It has a curious melancholy piping note, like a cart-wheel which wants oil and creaks each time it comes round to a certain spot. It frequents the undergrowth only and is never seen up in the trees.—*R. B. W.*]

**Cossypha heuglini** Hartl.


_a, b♂♀._ 120—150 miles W. of Entebbe, 4000 ft., 9th & 11th Dec. [Nos. 2027. *G. L.*; 3052. *R. B. W.*]


_f♂♀._ Mokia, S.E. Ruwenzori, 3400 ft., 28th April. [No. 297. *G. L.*]

Cossypha bartteloti Shelley.


Iris dark brown; bill black; feet dark brown.

This specimen, a fully adult male, resembles the type of *C. bartteloti* from the Aruwimi River both in its paler coloration and smaller size. Culmen 0·75 inch, wing 3·2, tail 2·6. The olive-brown feathers of the back are fringed with dark bluish-slate-colour, but in this respect it resembles a fine male example of *C. cyanocomptera* (Bonap.) from the River Ja, Cameroon. Most of the Cameroon birds have the chin, throat, and breast darker cinnamon-rufous than in *C. bartteloti*, but this is by no means invariably the case, and it seems that the latter form is barely separable from *C. cyanocomptera* except in size. *C. periculosa* Sharpe, from the River Danger, Gaboon, is another doubtfully distinct form, with the mantle a trifle browner and darker than in typical *C. cyanocomptera*. The type-specimen appears to be fully adult and the slightly darker colour of the back is probably individual.

In the type-specimen of *C. bartteloti* the middle tail-feathers are missing, and the figure given in the ‘*Ibis*’ is therefore misleading, as it represents a bird with a cinnamon-rufous tail.

*Cossypha melanotata* (Cab.).


Iris dark hazel; bill and feet black.

This form differs only from *C. verticalis* Hartl. in having the mantle slightly darker. Specimen *a* is marked "breeding." Specimen *c* is a young female in a very interesting stage of plumage: the feathers of the crown appear spotted, being rufous margined with black, and amongst them a few white feathers of the adult plumage are making their appearance. Specimen *b* is in nearly mature plumage, but the wing-coverts are margined with greyish-brown and spotted at the extremity with pale rufous.

[A few examples of the Black-backed Robin-Chat were met with in the lower valleys on the east side of Ruwenzori, but they were never seen above an elevation of 5000 ft. and were rather rare birds. A single specimen was shot in the dry acacia-country at the south end.—*R. B. W.*]

**Neocossyphus prepectoralis** Jackson.


The specimen procured by Mr. Douglas Carruthers at Kasongo, Upper Congo, and provisionally referred by me to the above species, has now been separated by Mr. Alexander under the name of *N. granti*.

[The single example of this rare species shot among the dense undergrowth was the only specimen seen.—*R. B. W.*]

**Erythropygia ruficauda** Sharpe.


Iris dark hazel or brown; bill black, yellow at the base of the lower mandible; feet varying from brown to pale flesh-colour.

[Sharpe’s Chestnut-tailed Ground-Robin was not uncommon on the plains and dry hills at the south end of Ruwenzori, wherever there were acacia-trees, and it was also observed in the Semliki Valley. It has a short sweet song, generally uttered from the top of an acacia-bush.—*R. B. W.*]

**Erythropygia hartlaubi** Reichenow.


*Cossypha griseistriata* Sharpe, Bull. B. O. C. xiii. p. 8 (1902) [type examined: Kangow’s, Toro].


Iris dark brown or hazel; bill brown or black; feet brown or light brown.

Specimens b and c are marked "breeding."

[A few examples of Hartlaub's Ground-Robin were met with in the Toro district and in the valleys on the east side of Ruwenzori up to 6000 ft. These birds were only observed among the elephant-grass and were by no means common. Towards evening one occasionally saw one of them perched on the top of a tall grass-stem, giving vent to a succession of loud clear whistles, and I once saw one near the ground, bobbing up and down on a grass-stem and going through a kind of dance, with its tail spread out like a fan; but I failed to ascertain the cause, as there was no other bird near it. Perhaps it was only joy at having found an open space among the endless elephant-grass.—R. B. W.]

**Alethe poliophrys** Sharpe.

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Iris dark brown, chestnut, or dark hazel; bill black; feet whitish, pale flesh, or pale brown.

The type-specimen of this very distinct species was procured by Mr. Geoffrey Archer during his short visit to Ruwenzori in February 1902.

[The Grey-eyebrowed Robin-Chat was found on Ruwenzori at elevations of from 6500 to 9000 ft., frequenting the forest-zone and the lower edges of the bamboo. It appeared to be particularly fond of the soldier-ants and might often be seen attacking a column of these insects as they crossed a path or open spot. Whether it really ate the ants, or merely snatched away the eggs they were carrying, was a point we could never decide; probably the eggs were the attraction, for it seems difficult to imagine anything more unsatisfactory than a meal of angry soldier-ants.—R. B. W.]

ALETHE WOOSNAMI Grant. (Plate XV. fig. 1, ♂.)


a. ♂. Eturi Forest near Irumu, 3000 ft., 18th Aug. [No. 3550. R. B. W. Type of the species.]

In general appearance the adult male of this species is similar to A. diademata (Bonap.), but is rather larger and has all the tail-feathers black to the tip. The upper-parts, especially the lower back and rump, are more rufescent.

The iris is hazel, the bill black, and the feet grey. Total length 7·2 inches; wing 3·9; tail (in moult) 3·15; tarsus 1·05.

[A single specimen of Woosnam's Robin-Chat, the only one seen, was obtained at the bottom of a densely-wooded valley which joins the Eturi Forest near Irumu.—R. B. W.]

ALETHE CARRUTHERSI Grant. (Plate XV. fig. 2, ♂.)


a. ♂. 150 miles W. of Entebbe, 5000 ft., 12th Dec. [No. 1059. D. C. Type of the species.]


This species is most nearly allied to *A. castanotus* Sharpe, but has the upperparts darker and of a more reddish-brown colour, instead of bright chestnut, the throat pure white, the chest and sides brownish-buff, and the middle of the breast and belly white. Iris dark hazel or chocolate; bill black; feet pale brown.

♂. Total length 6·0 inches; wing 3·5; tail 2·15; tarsus 1·05.

There are two female examples of this species from Toro in Mr. Jackson’s collection.

♀. Total length 6·0 inches; wing 3·4; tail 2·25; tarsus 1·05.

[Carruthers’s Robin-Chat was decidedly a rare bird. A few examples were met with in the Eturi Forest and in the Mpanga Forest to the east of Ruwenzori.—R. B. W.]

**Pratincola rubetra** (Linn.).


Iris dark brown; bill and feet black.

[The Whinchat was seen during the march from Entebbe and in the Toro district.—R. B. W.]


*Pratincola axillaris* Shelley, P. Z. S. 1884, p. 556 [Kilimanjaro: type examined].

*Pratincola salax pallidiqula* Reich. Vög. Afr. iii. p. 734 (1905) [Buea, Cameroon].

*a. ♂.* 12 miles W. of Entebbe, 3500 ft., 24th Nov. [No. 3001. R. B. W.]

*b, c. ♂.* 120–150 miles W. of Entebbe, 4000 ft., 8th & 11th Dec. [Nos. 3045, 3055.

R. B. W.]


*i. ♂.* Mubuku Valley, E. Ruwenzori, 5000 ft., 19th March. [No. 1383. D. C.]

Iris dark hazel or dark brown; bill and feet black.

The chestnut band across the chest, bordering the black neck, varies greatly in extent in different individuals, quite irrespective of season. In most specimens it is well defined and about half an inch in width, but in some it is much reduced or represented
only by rufous edges to the black feathers at the base of the neck. It would seem as though the examples in which the chestnut has nearly disappeared were very old birds, for a quite young male in first plumage, with the wing-coverts margined with pale rufous and the breast and belly strongly washed with the same colour, has a wide chestnut band across the chest.

Mr. Carruthers procured a somewhat remarkable specimen (No. 1248). It is marked "♀". The upperparts resemble those of the normal adult female, but are somewhat darker. The sides of the head, cheeks, and chin are sandy-brown, much like those of the ordinary female, but the throat and fore-neck are black as in the male; there is a chestnut band across the chest, and the rest of the underparts are white. This individual does not appear to be a young male, and there can be little doubt that it is an instance of a very old female assuming plumage like that of the male. Similar instances have been recorded. In Sokotra, I myself procured an undoubted female of Saxicola montana Gould in male plumage (cf. Nat. Hist. Sokotra and Abd-el-Kuri, p. 42).

A female of P. salax from Kenya, shot by Dr. R. E. Drake-Brockman, approaches the bird procured by Mr. Carruthers, having the feathers of the throat and fore-neck black, mixed with sandy-brown, but in other respects it is similar to normal females.

From typical P. salax from Gaboon Dr. Reichenow has separated the bird found at Buea, Cameroon Peak, under the name of P. s. pallidigula, disregarding the fact that Captain Shelley's name P. axillaris was given to the bird from the same locality (Cameroon, 7000 ft.) and has many years' priority. The latter is added to the synonymy of P. salax, to which P. pallidigula is certainly also referable.

[This Stonechat was met with throughout the journey from Entebbe to Ruwenzori, and was found on the mountains as high as 6500 ft., where the forest commences — R. B. W.]

**Myrmecocichla nigra** (Vieill.).


*b, i. ♀. Mokia, S.E. Ruwenzori, 3400 ft., 7th-13th June. [Nos. 436, 454. R. E. D.]

Iris dark brown; bill and feet black.

The characters which distinguish this Black Chat from *M. arnotti* (Tristr.) are fully set down in my paper published on Mr. Carruthers's collection and referred to above. Though united under one heading by Dr. Reichenow they are really very distinct species.
[The Black Bush-Chat was seen near Entebbe and during the march to Ruwenzori. It was plentiful on the plains all round the mountains, especially at the south end, but was never found above 5000 ft.—R. B. W.]

Family **Timaliidae**

**Crateropus kirki** Sharpe.


*Crateropus jardinei hypostictus* Cab. & Reich.; Reich. t. c. p. 660.

a, b. ♀. 100 miles W. of Entebbe, 4100 ft., 4th Dec. [Nos. 25, 26, R. E. D.]


**Adult.** Iris yellow; bill and feet black.

**Immature.** Iris dark grey; bill black; feet brown.

This species differs from *C. jardinei* Smith, from S. Africa, in being altogether somewhat smaller. Immature birds have the breast and belly pale brownish-white, slightly washed with rufous on the sides, and exhibit a stage of plumage which Dr. Reichenow has regarded as representing a separate subspecies, *C. jardinei kirki*. His *C. j. hypostictus* is founded on the adult of this form, which must be known as *C. kirki*, that name having priority.

The type of *C. kirki* is an immature bird from Mazaro, near the mouth of the Zambesi.

In four adult males the wing-measurement varies from 3'75 to 4 inches.

In five adult females the wing-measurement varies from 3'9 to 4'1 inches.

In three immature females the wing-measurement is 3'85 inches.

In typical *C. jardinei* the wing-measurement varies from about 4'3 to 4'55 inches.

**Crateropus sharpei** Reichenow.


*Crateropus sharpii* Jackson, Ibis, 1906, p. 541 [Toro].

a. ♂. 100 miles W. of Entebbe, 4000 ft., 7th Dec. [No. 32. R. E. D.]


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Iris white; bill black; feet black or brown.
[Both Kirk's and Sharpe's Babbling-Thrushes were seen throughout the journey from Entebbe to Ruwenzori. They were very common birds in the acacia-country at the south end of the range and in the upper Semliki Valley. They were always observed going about together in noisy parties, and were very inquisitive.—R. B. W.]

Phyllanthus czarnikowi Grant. (Plate XVII. fig. 1, e.)


a. c. Mawambi, E. Congo Forest, 3000 ft., 18th Oct. [No. 3633. R. B. W. Type of species.]

Czarnikow's Babbler is most nearly allied to *P. bohadorffi* (Sharpe), but differs in having the forehead, fore-part of the face, and the chin black; the feathers of the crown blackish, with grey margins; and the chestnut of the upper- and underparts darker in colour. Iris claret-colour; bill pale yellow; feet pale greenish-grey.

Total length ca. 8½ inches; culmen 1·05; wing 4·6; tail 3·2; tarsus 1·45.

In the type of *P. bohadorffi*, which is no doubt an immature bird, the feet are whitish (in the dry skin).

Mr. Alexander procured three examples of this species on the Welle River.

[The type-specimen of Czarnikow's Babbling-Thrush was obtained in the Congo Forest, and was the only one seen. It was shot among the dense undergrowth.—R. B. W.]

Macrosphenus flavicans Cassin.

*Macrosphenus flavicans* Reich. Vög. Afr. iii. p. 615, pl. xxii. fig. 3 (1905); Sharpe, Ibis, 1908, p. 117 [Cameroon].

*Macrosphenus zenkeri* Reich. t. c. p. 615, pl. xxii. fig. 4 (1905).


d. c. 20 miles N.W. of Fort Beni, 3000 ft., 11th Aug. [No. 506. R. E. D.]


Iris yellow, dark brown in the immature male; bill black; feet grey or bluish-ash.

There can be no doubt that, as has already been suggested by Dr. Sharpe, *M. zenkeri* is founded on immature examples of *M. flavicans*. In addition to the young male (specimen c) mentioned above, there is an immature female in the British Museum procured at Efulen, Cameroon, by Mr. G. L. Bates, which agrees exactly with the description and figure of *M. zenkeri* given by Dr. Reichenow.

[This Long-billed Bush-Warbler was seen only in the Congo Forest, where it was not uncommon. It was usually observed climbing about among the tangled masses of creepers which hung from the trees.—R. B. W.]
TURDINUS FULVESCENTS (Cassin).

Turdirorstris fulvescens Cass. P. Ac. Philad. 1859, p. 54 (part.) [R. Camma].

Turdinus fulvescens Reich. Vög. Afr. iii. p. 736 (1905) [part.] ; Sharpe, Ibis, 1908, p. 120

[Cameroon].

Turdinus albopectus Reich. Vög. Afr. iii. p. 738, pl. xxx. (1905); Sharpe, Ibis, 1908, p. 121

[Cameroon].

Turdinus bocagei Boll. No. 142, p. 1 (1903) [Fernando Po].

Turdinus baraka Jackson, Bull. B. O. C. xvi. p. 90 (1906) [Toro].


Iris brown; bill and feet dark horn-colour.

Dr. Reichenow has doubtfully referred T. cerminiventris Sharpe, from Conde, near the mouth of the Congo, to the synonymy of T. fulvescens Cassin, the types of which were procured by Du Chaillu on the Camma River, Gaboon. The British Museum possesses the type of the first-named species and two cotypes of the latter, also from the Camma River (Du Chaillu), and on comparing these it is at once apparent that they belong to two totally different species. I quite agree with Mr. Alexander in regarding T. albopectus Reichenow as synonymous with T. fulvescens. They are separated from one another in Dr. Reichenow's "Key to the Species" by the length of the wing, which is said to be 80 mm. long or more in T. fulvescents. This, however, is not the case and the length is quite correctly given by Cassin as 3 inches (= 76 mm.). In T. albopectus the wing is said to measure 73 mm.

The British Museum now possesses a series, both adult and immature, of typical examples of T. bocagei Sharpe. from Fernando Po, and there can be no doubt that this name must also be added to the synonymy of T. fulvescens.

In my opinion Dr. Reichenow has admitted far too many species of Turdinus, and the bird he describes as T. bocagei is certainly the redder-winged, redder-tailed, and whiter-breasted immature stage of T. fulvescents (Cass.).

T. baraka Jackson is no doubt also referable to T. fulvescents, and is founded on a nearly adult female of that species. Mr. Jackson compared it with the grey-throated T. jacksoni Sharpe, to which it is not very closely allied.

Adult males have the breast and underparts greyer, with less olive-brown on the flanks and less white in the middle of the belly.

Adult females and younger birds have the sides and flanks olive-brown and the middle of the belly white, sometimes very white in younger birds.

Younger birds have also the upperparts, wings, and tail much more rufous, and the feathers of the breast indistinctly margined with brownish-olive, producing a faintly scaled appearance.

[This Babbler was plentiful in the Euri Forest, where it frequented the darkest parts and was generally to be seen in small parties of four or five individuals hopping along close to the ground among the densest undergrowth and continually uttering a]
low twittering note. The birds always appeared to be following a definite course and did not wander aimlessly about. Both in their habits and notes they exactly resembled *Alicipe jacksoni* Sharpe, from Ruwenzori, but they were never to be met with on the mountains, although found both to the east and west of the range.—*R. B. W.*

**Turdinus cerviniventris** Sharpe.

*Turdinus cerviniventris* Sharpe, Bull. B. O. C. xii. p. 3 (1901) [Conde, Congo R.]


In many specimens of *T. cerviniventris* the feathers of the throat have indistinct grey shaft-streaks, producing a general greyish appearance. In others the throat is pure white. I cannot see that this difference has any connection with either distribution or age. Mr. Alexander has kindly sent me his fine series for comparison.

I may here remark that *T. reichenowi* Sharpe [nomen emend., cf. Hand-l. iv. p. 33 (1903)] is a pure synonym of *T. cerviniventris*, being founded on *T. rufiventris* Reich. (nec Salvad.) Orn. Monatsb. i. p. 177 (1893), a name given to specimens collected by Dr. G. Zenker in Cameroon. The British Museum possesses two specimens procured by the same collector in the same locality. These I have compared with the type of *T. cerviniventris* from the Congo, and there can be no doubt that they belong to one and the same species.

[A few examples of this Babbler were seen in the Mpanga Forest, Eastern Ruwenzori. Its habits were similar to those of *T. fulvescens*.—*R. B. W.*]

**Turdinus pyrrophyteus** (Reichenow & Neumann).


*Turdinus jacksoni* Sharpe, Bull. B. O. C. xi. p. 29 (1900) [Nandl].


Iris light brown or reddish-brown; bill blackish or grey, lighter on the lower mandible; feet slate-grey or brownish-grey.

Professor Neumann has separated a specimen from Mt. Sabjinga (Sabyino), Mufumbiro Volcanoes, under the name of *T. p. kivuenis* on account of its supposed greyer head, and has referred all the Ruwenzori specimens to that subspecies. When, however,
these latter were laid out in a series with typical specimens of *T. pyrrhopterus* from Nandi and the Mau escarpment it was found impossible to separate one from the other.

Younger birds have the crown of the head washed with olive, while in the oldest examples the grey colour predominates on this part.

[Jackson's Babbler] was met with on Ruwenzori from 6500 up to 9000 ft. It inhabited the forest-zone and was occasionally seen in the lower parts of the bamboo. It was usually met with in small parties of four or five individuals, which hopped along close to the ground among the densest undergrowth and continually uttered a low twittering note. They always seemed to be travelling in a definite direction. Their habits and notes exactly resembled those of *Turdinus fulvescens* from the Eturi Forest.—*R. B. W.*

**Turdinus atriceps** Sharpe.


*t. †. Butagu Valley, W. Ruwenzori, 7000 ft., 1st Aug. [No. 3527. *R. B. W.*]  

Iris dark brown or dark hazel; bill black; feet slate-grey or in one example (No. 116) olive-brown.

[The Black-headed Babbler] was found on Ruwenzori from 6500 to 9000 ft., frequenting the forest-zone and occasionally the lower part of the bamboo. In habits it much resembles *T. pyrrhopterus*, going about in small parties of four or five individuals. They hop along through the ferns and tangled vegetation, all following the same direction, and from time to time utter a low twittering note, exactly like that of a Swallow when in search of a nesting-site. This bird also has a most beautiful clear song, which was generally uttered from high up in some dense mass of tangled creepers.—*R. B. W.*

**Bathmedonia jacksoni** (Sharpe).

*Bathmedonocercus jacksoni* Sharpe, Bull. B. O. C. xiii. p. 10 (1902) [Kibera, Toro].

*Bathmedonia jacksoni* Jackson, Ibis, 1906, p. 542.

*Bathmedonia rufa* Reich. Vög. Afr. iii. p. 742 (1905) [part.].
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Iris dark brown or dark hazel; bill black; bare skin on the throat blue; feet grey or blue-grey.

Though closely allied this species is certainly not synonymous with B. rufa Reich. In addition to the differences already pointed out by Dr. Sharpe (cf. 'Ibis,' 1906, p. 542), I may mention that in B. jacksoni the black on the forehead extends rather further back, to the posterior margin of the eyes, and the belly, sides, and flanks are washed with olive, as in younger examples of B. rufa from Cameroon. In adult specimens of B. rufa these parts are nearly uniform dark grey.

The females of the two species differ even more than the males, the light creamy border to the black feathers of the throat and breast in B. jacksoni being dull olive in B. rufa.

[Jackson's Bush-Warbler was plentiful in the Mpanga Forest, E. of Ruwenzori. It frequented only the low undergrowth, especially in low-lying damp places, and was never seen on the range.—R. B. W.]

Family Pycnonotidae.

Criniger calurus (Cassin).

Criniger calurus Reich. Vög. Afr. iii. p. 382 (1904); Grant, Ibis, 1908, p. 304 [Kasongo, Upper Congo].


Iris dark grey or chestnut; bill dark grey, blacker on the culmen; feet grey.

This species was known only from West Africa, until Mr. Carruthers procured two specimens on the Upper Congo.

[Two specimens of Du Chaillu’s Bulbul were obtained in the Eturi Forest, but it appeared to be rather uncommon.—R. B. W.]

Xenocichla kikuyensis Sharpe.  (Plate XIX. fig. 20, egg.)

Xenocichla kikuyensis Sharpe, Ibis, 1891, p. 118 [Kikuyu].

Bleda kikuyensis Jackson, Ibis, 1906, p. 539 [Ruwenzori].


Iris dark brown; bill black; feet olive-brown, greenish-brown, or brown.

The genera forming this section of the Pycnonotidae are greatly in need of revision; at the present time the species included in them are in a state of confusion. For instance, such birds as the present species and *Xenocichla albicollis* Sharpe are both placed by Reichenow in the genus *Phyllosternus*, though structurally they are very different.

An egg of this species is of a rather blunt oval form and slightly glossy. The ground-colour is pinkish-white, heavily blotched and clouded with dark brown and leaden-grey, and with a few indistinct spots of deeper brown. It measures 96×71 in.

[The Kikuyu Bulbul is the most plentiful bird found on Ruwenzori. It frequents the forest-zone, but was found in the valleys as high as 10,000 ft. It is not a shy bird and was continually turning up in unexpected places, in the darkest and densest undergrowth, in the tops of the tallest trees, and in the bamboo- jungles. Although really one of the most familiar birds to us, it seemed to have a singularly unfortunate gift of continually appearing to be a quite different bird, and for this reason was constantly being shot by mistake. A nest found on the 4th of March, 1907, on Ruwenzori at 8000 ft., was placed in the undergrowth about 5 ft. from the ground and was composed of fine roots, grass, and moss; the female was sitting on a single egg.—R. H. W.]

**Xenocichla leucolema** Sharpe.

*Xenocichla leucolema* Sharpe, Bull. B. O. C. xiii. p. 10 (1902) [Toro]; Grant, Ibis, 1908, p. 302 [Kasongo, Upper Congo].

*Phyllosternus albicollis* Reich. (nee Sharpe) Vög. Afr. iii. p. 400 (1904) [part.].

*Bleda albicollis* Sharpe (nee Sharpe, 1881), Ibis, 1907, p. 459 [Cameroon].

a. ♂. Fort Beni, Semliki Valley, 5000 ft., 24th July. [No. 1755. D. C.]

Iris dark hazel; bill black; feet grey.

As already remarked ('Ibis,' 1908, p. 302), this species appears to be distinct from *Xenocichla albicollis* Sharpe [Cat. Birds B. M. vi. p. 103, pl. vii. fig. 1 (1881)] from Fantee, which is a very much smaller bird. So far as I am aware, the latter is only known from the type-specimen, of which the sex is not indicated.

**Xenocichla latissima** Sharpe.


The bill of the female is considerably shorter than that of the male.

♂. Culmen from nasal opening to tip 0·50 inch; wing 4·3; tail 3·9.

♀. " " " 0·38 " " 4·0; " 3·9.

Iris hazel or dark chestnut; bill black; feet grey or light green.

[This handsome Yellow Bulbul was very plentiful in the Mpanga Forest, east of Ruwenzori. They appeared to frequent the tree-tops exclusively and were never seen among the undergrowth. They have a very beautiful clear song of great volume, I think the finest I have ever heard in Africa.—R. B. W.]

**Bleda woosnami** Grant. (Plate XVII. fig. 2, ♂.)


*Bleda indicator* Jackson, Ibis, 1906, p. 539 [Toro]; Sharpe, Ibis, 1907, p. 460 [Cameroon].


This species is most nearly allied to *B. sygnactyla* (Swains.), but the bill, especially in the male, is much shorter and the yellow on the throat and underparts is of a much brighter colour. Iris hazel; bill grey; feet dull flesh-colour.

♂. Total length 8·8 inches; wing 4·2–4·30; tail 3·8–4·1; tarsus 1·15.

♀. " 7·8 " ; " 3·9–3·95; " 3·3–3·4; " 1·0.

[A few examples of Woosnam’s Yellow Bulbul were met with in the Mpanga Forest, east of Ruwenzori. They were always seen in the tall undergrowth, and not in the trees. Late in the evening I once or twice heard this bird attempting to sing, but the result was only a combination of several harsh loud notes.—R. B. W.]

**Andeopadus indicator** (Vert.).

*Bleda indicator* Jackson, Ibis, 1906, p. 539 [Toro]; Sharpe, Ibis, 1907, p. 460 [Cameroon].


♂. Iris white; bill black; feet dark grey.

♀. Iris greenish-grey; bill black; feet dark grey.

Mr. Jackson has already called attention to the difference in the colour of the eye in the male and female.

*B. batesi* Sharpe appears to be founded on immature birds, which have the outer tail-feathers pure white. This is clearly proved by a female specimen [No. 290] from the River Ja, received from Mr. Bates. This bird has the tail in partial moult—one side retaining the feathers of the first plumage, which are pure white, while

* Types of the species.
on the other side the new feathers are half-grown and the outer pairs are tipped with black.

[A few examples of the Honey-Guide Bulbul were seen in the Congo Forest near Irumu and also in the Mpanga Forest east of Ruwenzori, but they were not common. The specimens obtained were frequenting the tops of the very tall trees, and, if that is their usual habit, it would account for so few specimens being obtained, as our collecting-guns would not kill them at that height.—R. B. W.]

**Andropadus virens** Cassin.


*Eu Vallia virens* Jackson, Ibis, 1906, p. 540 [Toro].


Iris, bill, and feet dark brown.

This species and the larger paler *A. zimbeasis* Shelley, from Nyasaland, may be distinguished from the allied forms, *A. gracilis* and *A. curvirostris*, by the shorter broader bill; the throat too is yellow, like the middle of the breast.

[The Small Green Bulbul was very plentiful in the Congo Forest, but was not seen on the mountains.—R. B. W.]

**Andropadus gracilis** Cabanis.


*Eu Vallia gracilis* Sharpe, Ibis, 1904, p. 635.


Iris dark hazel or dark brown; bill black; feet olive or olive-green.

I am a little doubtful about the identification of specimen *c*. It has the general colour of the breast brownish-grey with scarcely a trace of yellow, and the sides and flanks warm olive-brown, while the middle of the breast and belly are white tinged with yellow. In the adult of *A. gracilis* these parts are pale rather bright yellow, and the breast, sides, and flanks are washed with the same colour.

I have already at some length drawn attention to the differences between this species and *A. curvirostris* Cassin [cf. *Ibis*, 1908, p. 303].

There are examples of this species in Mr. Jackson's collection from Entebbe and Kitunzi, Uganda.

[The Slender Green Bulbul was plentiful in the Congo Forest. We did not obtain any examples of this species in the Mpanga Forest to the east of Ruwenzori, but it is very likely to be found there. It has a low and very sweet song.—R. B. W.]
Andropadus curvirostris Cassin.


Andropadus latirostris Strickl.

*Phyllostrephus eucosus* Reich. t. e. p. 415.
*Phyllostrephus eucosus* Sharpe, Ibis, 1902, p. 114 [Mpanga Forest]; Jackson, Ibis, 1906, p. 540 [Toro; Ruwenzori].
*Phyllostrephus eucosus* Sharpe, Ibis, 1904, p. 636 [Cameroon].


a–c. ♀ ♀ et ♀ imm. Mubuku Valley, E. Ruwenzori, 6000–8000 ft., 7th–


I have already pointed out that *A. eugenius* Reich. cannot be separated from typical examples of *A. latirostris* from Fernando Po, and I may further remark that *E. eucosus* Sharpe is founded on immature examples of the same species; this may be seen by the light colour of the bill and the less-serrated upper mandible. Adult specimens from Efule, Cameroon, which have more recently been received from Mr. Bates differ in no way from *A. latirostris*.

The Moustached Bulbul was plentiful in the forest-zone on Ruwenzori up to 8500 ft., and also in the Mpanga Forest and wooded valleys of the Toro district. It can hardly be said to have a song, but keeps up a ceaseless twittering and chirping in the tree-tops.—*R. B. W.*

Phyllostrephus eucosus Reichenow.

*Phyllostrephus eucosus* Jackson, Ibis, 1906, p. 541 [Toro].


g. ♀. Mubuku Valley, E. Ruwenzori, 9000 ft., 19th March. [No. 3245. *R. B. W.*]
Iris brown or olive-brown; bill brown; feet grey, dark grey, or greyish-brown.

I am not quite satisfied about the identification of these birds. *P. cabanisi* was founded by Dr. Sharpe on a description given by Cabanis of a Bulbul from Angola allied to *P. icterinus* (*tricolor*); consequently there is no type-specimen.

There are three examples named *P. cabanisi* in the British Museum: one from the Benito River and two from South Cameroon. If these long-billed specimens with strong rictal bristles are correctly identified, they are certainly not very nearly allied to the present species or to *P. placidus* (Shelley), both of which are considered to be subspecies of *P. cabanisi* by Dr. Reichenow. The Mpanga birds are evidently nearly allied to *P. placidus*, but are paler and more olive above, and much yellower on the underparts.

A single specimen of this Bulbul was killed on Ruwenzori at 9000 ft., in the upper part of the forest-belt, and a few examples were met with in the Mpanga Forest. They were usually met with in the undergrowth or low down in the trees.—*R. B. W.*

*Phyllastrephus icterinus* (Bonap.).


*Bulola tricolor* Sharpe, Ibis, 1907, p. 461 [Cameroon].

*Criniger icterina* Grant, Ibis, 1908, p. 304 [Kasongo, Upper Congo].

*IXONOTUS GUTTATUS* Verr.


Iris dark brown; bill brown; feet dark grey.

As already observed in my paper on Mr. Carruthers' collection, this species was, so far as I am aware, hitherto known only from West Africa.

[This Spotted Bulbul was one of the few birds we obtained out of the tops of the tall trees in the Congo Forest. It was the only example of the species procured. The ordinary .410-bore collecting-gun was almost useless among the tall tree-tops of the Congo Forest and it was always a great surprise when a bird was shot — *R. B. W.*]
ZOOLOGICAL RESULTS OF THE RUWENZORI EXPEDITION.

Pycnonotus tricolor Hartl.


Pycnonotus tricolor minor Heugl.; Reich. t. c. p. 421.


Iris dark brown; bill and feet black.

I am unable to recognize P. minor Heugl. as distinct from P. tricolor.

[Monteiro’s Yellow-vented Bulbul was plentiful throughout the journey from Entebbe to Ruwenzori and was met with all round the mountains as far north as Irumu. It was found on Ruwenzori up to 6000 ft., but not above that altitude.— R. B. W.]

Family Campophagidae.

Campophaga nigra Vieill.


Campophaga nigra Jackson, Ibis, 1906, p. 538 [Ankoli]; Grant, Ibis, 1908, p. 304 [S.W. Uganda].

a. ♂. Mokia, S.E. Ruwenzori, 3400 ft., 17th June. [No. 469. R. E. D.]

Iris dark brown; bill and feet lack.

[A single specimen of the Black Cuckoo-Shrike was obtained in the acacia-country at the south end of Ruwenzori.—R. B. W.]

Campophaga petiti Oustalet.

Campophaga petiti Reich. Vög. Afr. ii. p. 519 (1903) [female].

Campophaga petiti Grant, Bull. B. O. C. sin. p. 87 (1907) [male, Mpanga Forest].


The adult male of this species is very similar to that of C. nigra Vieill., but is distinguished by having the under surface of the quills blackish-grey, with or without the faintest tinge of greenish-yellow on the margins of the inner webs. In C. nigra
the inner webs are always conspicuously pale greenish-yellow. Iris dark brown; bill and feet black. Total length ca. 8.0 inches; wing 4.1; tail 3.5; tarsus 0.85. The single male procured by Mr. R. E. Dent is almost certainly referable to this species. There is another perfectly similar specimen in the British Museum labelled "Gaboon (P. Du Chaillu), Tweeddale Collection," which has been wrongly identified as C. nigra: also an adult female from Angola, procured by J. J. Monteiro and doubtfully referred to C. hartlaubi Salvad.

I have also examined in the Tring Museum two males and a female of this species, which, like the bird described above, were also collected in the Mupanga Forest by Herr R. Grauer: likewise a male from Nandi, Uganda, obtained by Dr. W. J. Anseroe.

[A single specimen of Oustulet's Cuckoo-Shrike was obtained in the Mupanga Forest E. of Ruwenzori. It was shot in the top of a tall tree.—R. B. W.]

*Graucalus cæsius* Licht.

*Graucalus cæsius* Grant, *Ibis*, 1900, p. 171.


*Graucalus purus* Jackson, *Ibis*, 1906, p. 538 [Ruwenzori].


\(n\). \(♀ \text{ imm.}\) Mubuku Valley, E. Ruwenzori, 8000 ft., 21st March. [No. 3248. R. B. W.]

Dr. Reichenow and other ornithologists still continue to separate East African examples of this Cuckoo-Shrike from typical *G. cæsius* from South Africa. Of the above, eight adult males have the wing-measurements as follows:—(1) 120 mm.; (1) 122; (3) 123; (1) 125; (2) 126.

In four adult females the wing-measurements are:—(1) 121 mm.; (2) 123; (1) 127.

In the male type of *G. purus* Sharpe from Mount Elgon the wing measures 126 mm.

In typical examples of *G. cæsius* from Cape Colony, &c., the average measurement is about 127 mm., i.e. about 2 mm. more than in *G. purus*, and it appears absurd on that account to retain *G. purus* as a separate species. There is no difference in the colour of the plumage.

It has been stated by Dr. Sharpe (*cf. *Ibis*, 1891, p. 121) that the white margins of the quills in *G. cæsius* distinguish that species from *G. purus*, which has the external edges of the primaries slaty-grey like the back. But the fact is that the white edges
to the quills are characteristic of the young birds of this species, which ranges from the mountains of Abyssinia to Cape Colony.

[The Grey Cuckoo-Shrike was not uncommon in the forest-zone of Ruwenzori from 6500 ft. to 8500 ft., but was never seen above or below that elevation. It had a very curious note, a long-drawn feeble squeak, such as one would expect a mouse or some very small bird to make; it resembled the note of a young Robin in autumn, but had almost less volume.—R. B. W.]

**Graucalus azureus** Cassin.


*a.* Irumu, Eturi Forest, 3000 ft., 17th Oct. [No. 3634. R. B. W.]
Iris dark claret; bill and feet black.
This specimen seems to be referable to *G. azureus*, but is somewhat larger than any of the West African examples in the British Museum. Wing 4-8 inches; tail 3-8.

[A single specimen of the Blue Cuckoo-Shrike was obtained in the Congo Forest, and was the only one seen.—R. B. W.]

**Family Muscicapidae.**

**Melanornis pammelana** (Stanley).

*Melanornis pammelana* Grant, Ibis, 1907, p. 592 [Baro River].


*e-g.* Mokia, S.E. Ruwenzori, 3400 ft., 16th June. [Nos. 462, 463, 468. R. E. D.]

Iris brown; bill and feet black.
The males are somewhat larger than the females.

*φ.* Wing 3-75-3-9 inches.

[Stanley’s Cuckoo-Shrike was not uncommon in the acacia-country at the south end of Ruwenzori and in the Upper Semliki Valley, but was not seen on the range. It was breeding at the end of May.—R. B. W.]

**Bradyornis murinus** Finsch & Hartl.


*Bradyornis murinus* Grant, Ibis, 1908, p. 305 [N.W. of Lake Tanganyika].

Iris dark brown; bill and feet black.
[A few examples of this Robin-Shrike were seen in the acacia-country at the south end of Ruwenzori in the middle of April. From the condition of the testes and ovaries in the specimens examined they did not appear to be breeding. The species was not subsequently met with.—R. B. W.]

Alseonax pumilus Reichenow.


m imm. Mubuku Valley, E. Ruwenzori, 5000 ft., 16th March. [No. 211. R. E. D.]


Iris dark brown; bill dark brown or blackish, lighter towards the base of the lower mandible; feet brown.

This bird seems to differ from typical A. murinus Fisch. & Reich., which was described from the Meru Mountains, Massai, in having a paler abdomen, but in this respect some Abyssinian examples appear to be indistinguishable.

[This small brown Flycatcher was found on Ruwenzori from an altitude of 5000 to 10,000 ft. It frequented chiefly the more rough open country among the cultivated patches below the forest-line, and was generally to be seen perched on a post or on the end of a dead bough, from which it could easily fly after passing insects.—R. B. W.]

Alseonax infalatus (Hartl.).


Iris dark brown; bill and feet black.

This species is new to the British Museum Collection. All the specimens which have been named A. pumilus in the Jackson Collection are really referable to the above.

[Hartlaub's Brown Flycatcher was met with only in the papyrus-swamps and among the tall reed-beds along the shores of the lakes.—R. B. W.]
Alseonax ebulatus (Cassin).


*a, b. e et e imm. 30-40 miles N.W. of Fort Beni, Semliki Valley, 3000 ft., 12th & 18th Aug. [Nos. 3545, 3546. R. B. W.]*

Iris dark brown; bill brown; feet yellow (adult male), light brown (immature male). The immature male (No. 3546) has the secondary-quills, flanks, and upper tail-coverts tipped with sandy-buff.

In the British Museum there is a typical example of this species from Muni River, Gaboon (Du Chaillu).

[The small Slate-coloured Flycatcher was plentiful in the Eturi Forest, but was not seen in the Mpanga Forest east of Ruwenzori, although *A. comitatus* was found in both. It seemed to frequent the lower parts of the tall trees, especially where there was little undergrowth.—R. B. W.]

Alseonax fantisiensis Sharpe.

*Alseonax fantisiensis* Sharpe, Cat. Birds B. M. iv. p. 131 (1879) [Fantee].


*a. f. 40 miles N.W. of Fort Beni, 3000 ft., 18th Aug. [No. 3547. R. B. W.]*

Iris dark brown; bill brown; feet black.

It is remarkable that this female example should have been shot by Mr. Woosnam at the same spot where he obtained a young male of *A. ebulatus*; but there seems to be no room for doubt that this bird is the true *A. fantisiensis*, as is shown by the ashy-grey colour of the upperparts and breast and by its black legs.

Alseonax comitatus (Cassin).


*Pedilorhynchus stuhmanni* Reich. t. c. p. 460.

*Pedilorhynchus stuhmanni camerunensis* Reich. t. c. p. 461.

*Pedilorhynchus camerunensis* Sharpe, Ibis, 1907, p. 447 [Cameroon].


*b. e. Fort Beni, Semliki Valley, 3000 ft., 23rd July. [No. 3512. R. B. W.]*

Dr. Reichenow has separated the Uganda and Cameroon birds under the above headings, but I am unable to see any difference whatever between the above-mentioned specimens and the series sent home by Mr. Bates. All are referable to Butalus comitatus Cassin (P. Ac. Philad. 1857, p. 35), of which the British Museum contains typical examples collected by Du Chaillu in Gaboon.

The wing-measurement (60 mm.), as given by Dr. Reichenow in his key to the species, is misleading. Cassin perfectly correctly gives the wing-measurement of the type of *B. comitatus* as 2 1/2 inches, which is equal to 63 mm.
This bird looks like a large specimen of *A. epulatus*, which was also procured at Fort Beni.

[Stuhlmann's Flycatcher was numerous in the Eturi Forest and also in the Mpanga Forest. Like *A. epulatus* it was always seen about the lower parts of the trees where there were open spaces to pursue insects, and was never observed among the dense undergrowth nor in the tree-tops.—R. B. W.]

**Stizorhina vulpina** Reichenow.


*a. \( \delta \).* 10 miles N. of Fort Beni, Semliki Valley, 3000 ft., 10th Aug. [No. 1771. D. C.]

*b. \( \varphi \).* Irumu, Eturi Forest, 3000 ft., 16th Oct. [No. 3628. R. B. W.]

*c. \( \delta \).* Mawambi, E. Congo Forest, 2500 ft., 31st Oct. [No. 580. R. E. D.]

Iris dark brown; bill blackish; feet brown or light brown.

The differences between this species and *S. fraseri* have already been pointed out in my paper on Mr. Carruthers’ collection from the Upper Congo, &c.

In the present specimens the wing-measurements vary from 3·65–3·8 inches.

[A few examples of this Chestnut Flycatcher were seen in the Congo Forest throughout the journey from Irumu to Basoko.—R. B. W.]

**Muscicapa toruensis** Hartert.

*Muscicapa toruensis* Hartert, Nov. Zool. vii. p. 37 (1900) [Toro].


*a. \( \delta \).* Mubuku Valley, E. Ruwenzori, 6000 ft., 28th Dec. [No. 2034. G. L.]


*i, k. \( \delta \).* Mubuku Valley, E. Ruwenzori, 5000–6000 ft., 5th & 17th March. [Nos. 187, 209. R. E. D.]

Iris chocolate or dark brown; bill bluish-grey, black towards the tip; feet very dark brown or black.

One male example of the Toro Grey Flycatcher (No. 74) has the middle of the breast and belly grey like the sides, whereas most of the specimens incline to whitish on the middle of the belly.

[The Toro Flycatcher was found on Ruwenzori only below the forest-line; it was not a common bird.—R. B. W.]
ZOOLOGICAL RESULTS OF THE RUWEZORI EXPEDITION.

**Tarsiger ruwenzorii Grant.** (Plate XVIII. fig. 4, ε; Plate XIX. fig. 10, egg.)

*Pogonocichla orientalis* Jackson (acc Fischer & Reich.), Ibis, 1906, p. 534 [Ruwenzori].


**m, n. ε et imm.** Mubuku Valley, 7000–10,000 ft., 2nd & 24th Feb. [Nos. 2138. G. L.; 3178. R. B. W.]

**o. ε imm.** Mubuku Valley, 6000 ft., 5th March. [No. 188. R. E. D.]

This species is most nearly allied to *T. johnstoni* Shelley, which it resembles in having the outer webs of the secondary-quills margined with olive; but it is easily distinguished by the conspicuous orange-yellow rump and upper tail-coverts, and by having the yellow on the second pair of tail-feathers confined to the basal half of the outer web, and the outer pairs widely tipped with black, about 0.7 inch in width.

Iris dark hazel; bill black; feet olive-brown or greenish-brown.

ε. Total length ca. 6.0 inches; wing 3.2; tail 2.7; tarsus 1.0.

♀. " 5.6  " ; 2.9–3.0; tail 2.4; tarsus 0.95.

Specimen No. 3141, a male shot by Mr. Woosnam at 11,500 ft., is a very richly-coloured bird, the mantle and back being of a more reddish-olive colour than in any other specimen, and the breast and sides of a deeper orange-yellow.

Immature birds of this species have the head, mantle, chest, and breast spotted, the feathers of the upperparts having a buff spot margined with black at the extremity, while those of the underparts are pale yellow bordered with black. The belly is pale yellowish-white. The outer tail-feathers are quite differently marked from those of the adult, being orange-yellow, bordered on both webs at the extremity with black, whereas in the adult the whole terminal portion of the feather is black.

Mr. Carruthers obtained an adult male example of this species on the Mufumbiro volcanoes.

Dr. Reichenow has recently re-described this species under the name of *Tarsiger eurydesmus*.

Two eggs of *T. ruwenzorii* were procured in the Mubuku Valley, at an elevation of 8000 ft., on the 23rd of January. They are of a rather pointed oval shape and slightly glossy. The ground-colour is white, finely freckled all over with light red and lilac-grey, the markings being most numerous towards the larger end. They measure ‘94×.61; ‘9×.62 inch.

[The Ruwenzori Bush-Robin was met with from an altitude of 6500 ft. up to 12,000 ft. It was most numerous in the forest and in the lower part of the
bambu. It frequented the undergrowth only, and was never seen in the trees.—R. B. W.]

Parisoma plumbeum (Hartl.).


a, b, c et d imm. Mokia, S.E. Ruwenzori, 3400 ft., 3rd May. [Nos. 276, 277. R. E. D.]

d, e, f, g. Fort Beni, Semiliki Valley, 3000 ft., 23rd July. [Nos. 1749, 1751. D. C.]


Iris dark brown; bill black or dark grey; feet dark grey or bluish-black.

A young male (No. 277) is in much the same stage of plumage as the bird described from Mr. Carruthers' collection in my paper quoted above. The female (No. 1751), one of the pair shot on the 23rd of July, is in very worn plumage, the grey feathers on the upperparts inclining to sandy-brown.

[A few examples of Hartlaub's Tit-Warbler were seen on the plains at the southeastern end of Ruwenzori, and in the open clearings in the Eturi Forest, also near Fort Portal, but they were everywhere rather scarce.—R. B. W.]

Chloropeta kenya Sharpe.

Chloropeta icterina Sharpe (nee Sundev.), P. Z. S. 1900, p. 608 [Mt. Kenya, 10,000 ft.].

Chloropeta kenya Sharpe, Bull. B. O. C. xii. p. 35 (1901) [Mt. Kenya, 10,000 ft.].


i. e. Mubuku Valley, E. Ruwenzori, 9000 ft., 12th April. [No. 3271. R. B. W.]


Iris hazel or dark brown; bill blackish, lower mandible mostly yellowish-horn-colour; feet grey or greenish-grey.

The only difference between this species and C. similis Richmond [cf. 'Auk,' xiv. p. 163 (1897)], which was obtained on Kilimanjaro at an altitude of 10,000 ft., appears to be one of size, the wing-measurement being somewhat smaller, 2:15 inches. I may here remark that Dr. Reichenow seems to have omitted all reference to C. similis (cf. Vög. Afr. ii. p. 464), while Mr. Oberholser has identified it with C. kenya [cf. Pr. U.S. Nat. Mus. xxviii. p. 912 (1905)]. I doubt the correctness of this identification for the
reason given above, and also because in the original description of *C. similis* the sides of the face and ear-coverts are said to be of the same brownish-green colour as the upperparts, whereas in *C. kenya* those parts are washed with yellow. It will be necessary to compare typical examples of both forms before a definite conclusion can be arrived at. The shape of the wing varies in different individuals, and too much reliance cannot be placed on it. In the present series the 3rd primary-quill is sometimes equal in length to the 8th and sometimes to the 9th quill.

Immature birds (Nos. 1287 & 2213) differ from the adults in having the upperparts brownish-olive instead of dark greenish-olive, and the underparts paler yellow, the chest and flanks being tinged with cinnamon.

*C. kenya.*

1 ♂ (type of the species). Kenya. Wing 2·3 inches.
2 ♂. Kikuyu Escarpment. Wing 2·35 and 2·45 inches.
5 ♂. E. Ruwenzori. Wing 2·35-2·45 inches.

3 ♀. " " 2·25-2·3 inches.

*C. similis.*

1 ♀ (type of the species). Kilimanjaro. Wing 2·15 inches.

[The Kenya Yellow Flycatcher was met with on Ruwenzori from an altitude of 7000 to 10,000 ft. It was most plentiful in the swampy parts of the valleys from 9000 to 10,000 ft., usually keeping to the dense undergrowth. It has a short and very low but extremely musical song, which is most often to be heard late in the evening.—R. B. W.]

**Chloropeta massaica** Fischer & Reichenow.

*Chloropeta natalensis umbriniceps* Neumann; Reich. t. c. p. 465.

*a* ♂ mm. 140 miles W. of Entebbe, 4200 ft., 10th Dec. [No. 1034. D. C.]


e. ♂. 60 miles N. of Fort Beni, Semliki Valley, 3500 ft., 16th Aug. [No. 1786. D. C.]

Iris dark hazel; upper mandible black, lower brown; feet varying from dark grey to blackish.

A quite young bird (No. 1054) has the upperparts browner than in the adult, the pale edges of the quills much wider and of a rufous-yellow colour, and the underparts, especially the chest, sides, and flanks, washed with cinnamon-buff.
[The Massai Yellow Flycatcher was observed near Entebbe, all around Ruwenzori, and in the Semliki Valley near Fort Beni. On Ruwenzori it was found up to an elevation of 6000 feet, but not higher: at 7000 feet a very similar species, C. *kenya*, takes its place and ranges up to 10,000 feet. Its favourite haunts are low-lying damp places and valleys, where there are tall grasses or reeds and dense undergrowth.—*R. B. W.*]

**Chloropeta gracilirostris** Grant. (Plate XVIII. fig. 3, *♂*.)


*a* *♂* imm. Mokia, S.E. Ruwenzori, 3400 ft., 12th June. [No. 1623. *D. C. Type of the species.*]

This apparently immature bird differs from all known species of *Chloropeta* in having a longer and more slender bill and the feet and claws greatly developed. The latter peculiarity is well shown in the accompanying text-figure 13, in which the

Text-fig. 13.

foot of *C. gracilirostris* is compared with that of *C. *kenya*, a species of about the same size as regards the wing-measurement. It is most nearly allied to *C. *kenya* Sharpe, from which it differs principally in its somewhat darker olive upperparts and in the absence of a superciliary stripe. The type-specimen has the edges of the flight- and tail-feathers as well as the upper tail-coverts dull reddish-brown, and the lower back, sides, and flanks washed with the same colour.

Iris dark reddish-brown; bill brown; feet black.

Total length about 5·4 inches; culmen 0·63, width at the base of the nostrils 0·2; wing 2·5; tail 2·4; tarsus 1·0.

[A few of these Flycatchers were found inhabiting the dense papyrus-swamps and reed-beds along the shores of Lake Albert. They were apparently rather uncommon, but the difficulty of seeing birds which live in such situations may have misled us in this respect.—*R. B. W.*]
Batia orientalis (Heugl.).


1. a, b. ♂ ♀ 2. 100 miles W. of Entebbe, 4000 ft., 4th & 5th Dec. [Nos. 27. R. E. D.; 3029. R. B. W.]


Iris yellow; bill and feet black.

[Heuglin's White-flanked Flycatcher was obtained near Entebbe and in the acacia-country at the north and south ends of Ruwenzori, but it was never met with on the mountains above 5000 ft.—R. B. W.]

Batia puella Reichenow.


Iris bright yellow or greenish-yellow; bill and feet black.

[The Sylph-like Flycatcher was found on Ruwenzori from an altitude of 6000 to 8000 ft., usually below the forest-line. It was breeding in January.—R. B. W.]

Batia diops Jackson. (Plate XVIII. fig. 2, ♂.)


Iris yellow or orange; bill and feet black.

It is remarkable that in this species the sexes are perfectly similar in plumage.

[Jackson’s Pied Flycatcher frequented the forest-zone from 6500 to 8500 ft., where it was very numerous. It was to be found among the dense undergrowth and also frequented high trees.—R. B. W.]

Diaphorophyia castanea (Fraser).


*Diaphorophyia leucopygialis* Fraser; Jackson, Ibis, 1906, p. 535 [Toro].


Iris plum-colour or mauve, wattle round the eye dark mauve; bill black; feet mauve.

Mr. Bates has published some interesting notes on the habits of this species (cf. 'Ibis', 1905, p. 94).

A few examples of Fraser's Spectacled Flycatcher were seen in the Mpanga and Eturi Forests, but they were rather uncommon. They frequented the undergrowth and were never seen high up in the trees.—R. B. W.]

**Diaphorophyia jamesoni** Sharpe.


h, i. ♂. Fort Beni, Semliki Valley, 3000 ft., 20th & 24th July. [Nos. 1728, 1753. D. C.]

Iris dark brown; eyelid turquoise-blue; bill black; feet mauve.

The female has the crown and the upperparts greyer than in the male, and with less oil-green gloss.

Quite young males have the upperparts like those of the female, but with even less greenish gloss. The chin, throat, and upper chest are chestnut, darker on the sides, and bordered posteriorly with a blackish band, and a few deep green feathers of the adult plumage are mingled with the chestnut feathers of the throat.

Jameson's Spectacled Flycatcher was met with throughout the journey through the Congo Forest from Irumu to Basoko. It was also found in the Mpanga Forest east of Ruwenzori. It inhabits the darkest parts of the forest, where it usually frequents the tall undergrowth and is never seen high up in the trees.—R. B. W.]

**Platysteira cyanea** (P. L. S. Müller).


*Platysteira albifrons* Sharpe, Ibis, 1873, p. 159 [River Loge].

*Platysteira cyanea albifrons* Reich. t. c. p. 489.


Iris grey or dark grey; eye-wattle scarlet; bill and feet black.

_P. allifrons_ Sharpe appears to be founded on somewhat immature male examples of _P. cyanea_. In the present collection there are males both with and without the white forehead, shot at Mokia, S.E. Ruwenzori, and from Fort Beni there are males clearly showing a transitional stage, in which the white band on the forehead is only represented by a few white feathers.

Professor Neumann has recognized four subspecies of _P. cyanea_, but the differences by which he characterises them seem to be of no value.

[These small Flycatchers were met with here and there all round the eastern and south-eastern base of Ruwenzori as well as at Fort Beni on the edge of the Congo Forest. Their note is a curious one, somewhat similar to that of _Batis orientalis_ Heugl., which consists of two low clear whistled notes, descending and with a considerable interval between them. _P. cyanea_ utters two very similar notes, but adds a third and lower note the same number of semitones below the second that the second is below the first.—R. B. W.]

**Megabias equatorialis** Jackson.


Iris crimson; bill black; feet flesh-colour.

In this species the female has all the tail-feathers, except the outer pair, blackish narrowly margined with chestnut, whereas in the allied _M. atrialatus_ Cassin all the tail-feathers are chestnut. The males are practically indistinguishable.

Only one specimen was seen.

**Smithornis camerunensis** Sharpe.

_Smithornis camerunensis_ Sharpe, Ibis, 1905, p. 469 [♀ only, River Ja, S. Cameroon]; id. Ibis, 1908, p. 451 [River Ja].


Iris dark brown; upper mandible black, lower white; feet light greenish-yellow.

A great deal of confusion has taken place over this species, which is nearly allied to _S. capensis_ Smith, but is somewhat smaller and has a much darker and more richly
coloured brown back, &c. The sexes are similar in plumage in fully adult birds. The type-specimen of \textit{S. camerunensis} is a female. Dr. Sharpe made the mistake of referring male examples of \textit{S. rufolateralis} G. R. Gray from S. Cameroon to this species (cf. \textit{Ibis}, 1905, p. 469); but on my pointing out this mistake to him it was subsequently corrected (cf. \textit{Ibis}, 1908, p. 451). Mr. Bates had now procured a number of males of \textit{S. camerunensis} as well as females, and these do not differ in any way from the type, except that the latter has the crown somewhat streaked, not uniform as in the adult male and in the most adult females. The female specimen from Mpanga is likewise perfectly similar to the type, both the wings and tail being precisely the same length—wing 2.8 inches; tail 1.9. The specimen is evidently a very mature bird, with the crown black like that of the male, the margins of the median wing-coverts whitish instead of rufous-buff, and the under tail-coverts with very narrow dark shaft-streaks. Among Mr. Bates's birds there is a similarly marked specimen (No. 1142) in very worn plumage, but the streaks on the under tail-coverts are wider as in other Cameroon specimens. The sex of this bird was not ascertained. It may be that the Mpanga bird represents a slightly different form, but more material is required to settle the point.

[A few examples of the Cameroon Broad-billed Flycatcher were seen, or rather heard, in the Mpanga Forest, but they were by no means common. The note of this little bird is, I think, the most remarkable I have ever heard, and it is impossible to describe it satisfactorily. It is a kind of jarring noise, something like the sound made by the Greater Spotted Woodpecker hammering upon a dead tree-trunk, but very much louder and more resonant. I had often heard this sound in the forest, but for a long time could not discover the cause of it. The natives said it was made by a Colobus Monkey, but at last I had twice the good fortune to watch the bird actually making the noise, at a distance of 15 yards from me. Had I not seen and heard it so close to me, nothing would have persuaded me to believe that it was not produced by a large animal. It was just the sound one would expect a large Hornbill, such as \textit{Bycanistes subcylindricus}, to make. The bird was perched on the end of a short broken bough, but it did not utter the sound from there. At short intervals it flew suddenly up and hovered like a great hawk-moth by the trunk of the tree with its beak almost touching the bark, and in this position gave forth the extraordinary jarring note. I watched it do this twice in a minute in exactly the same spot, and then, fearing it might escape, I shot it. The native who had told me it was a Colobus was with me and seemed as much surprised as I was. I have since wondered whether the sound is for the purpose of frightening insects out of the bark or moss. Both \textit{S. camerunensis} and \textit{S. rufolateralis} make this curious sound.—R. B. W.]
Smithornis rufolateralis G. R. Gray.

_Smithornis camerunensis_ Sharpe, Ibis, 1905, p. 469 [♂, no. 456, Efulen, Cameroon].


A male of this species procured in the Bugoma Forest, Unyoro, was presented to the British Museum by Dr. C. Christy.

[Gray's Broad-billed Flycatcher was met with throughout the journey through the Congo Forest, but was not very numerous. It inhabits the darkest parts of the forest where the trees are tallest, but does not frequent the tree-tops. Its note is exactly the same as that of _S. camerunensis_ Sharpe.—_R. B. W._]

Smithornis sharpei Alexander.


Iris dark hazel; bill black, lower mandible whitish; feet pale green.

The description of the bird from Fernando Po was published by Mr. Boyd Alexander on the 23rd of December, 1902, while Dr. Reichenow's description of _S. zenkeri_ did not appear till 1903, consequently the former name has priority. I have compared examples from Fernando Po with Cameroon specimens and they appear to be perfectly similar.

Mr. Alexander (‘Ibis,’ 1903, p. 385) has expressed the opinion that _S. zenkeri_ differs from _S. sharpei_, but with the material now available for comparison I cannot see that this is really the case.

The specimen in the present collection does not appear to be fully mature: the bill is less broad than in Cameroon birds in the British Museum; the wing-coverts are more conspicuously edged with rufous; and the white patch on the throat is tinged with yellow. All these characters are probably signs of immaturity.

Mr. Bates, in his paper quoted above, gives some interesting notes on the habits of this species. He mentions the loud rattling noise made by the male, his remarks bearing out what Mr. Woosnam has written above of _S. camerunensis_ and _S. rufolateralis_.

Artomyias fuliginosa Verri.

_Artomyias fuliginosa_ Reich. Vög. Afr. ii. p. 462 (1903); Sharpe, Ibis, 1907, p. 452 [Efulen, Cameroon].

Iris dark brown; bill black; feet dark brown.

[Verreaux’s Dusky Flycatcher was plentiful in both the Eturi and Mpanga Forests. It was generally to be seen perched high up at the end of a dead bough, from which it made short flights after passing insects, always returning to the same tree; sometimes six or eight might be seen on a single dead tree, but they were more often observed in pairs. When flying they might be easily mistaken for Martins.—R. B. W.]

**Erythrocercus congicus** Grant.  (Plate XIV. fig. 1, ♀.)


a. ♂. Irumu, Eturi Forest, 3000 ft., 16th Oct.  [No. 566. R. E. D. *Type of the species.*]

This species is most nearly allied to *E. maccalli* (Cassin), but the top of the head is deep chestnut instead of bright chestnut-red.

Iris pink; bill brown; feet flesh-colour.

Total length ca. 3'-8 inches; wing 2'-0; tail 1'-75; tarsus 0'-65.

Mr. R. E. Dent procured a single example of this beautiful little Flycatcher.

**Trochocercus albonotatus** Sharpe.

*Trochocercus albonotatus* Sharpe, Ibis, 1891, p. 121 [Mt. Elgon]; Reich. Vögel Afr. ii. p. 499 (1903); Jackson, Ibis, 1906, p. 536 [Ruwenzori].


Iris dark brown; bill black; feet dark brown or black.

[This pretty little Flycatcher was one of the most numerous birds inhabiting the forests on Ruwenzori and was confined to that zone. It was occasionally to be seen among the lower parts of the bamboo up to an altitude of 8500 ft., but it was never seen below 6500 ft.—R. B. W.]

**Trochocercus bedfordi** Grant.  (Plate XVIII. fig. 1, ♂.)


a, b. ♂ ♀. Mawambi, E. Congo Forest, 3000 ft., 17th Oct.  [Nos. 3631, 3632. R. B. W. *Types of the species.*]

This species is most nearly allied to *T. nitens* Cass., but is larger; the general colour
of the plumage is of a bluer-grey; the crest shorter; and the edges of the wing-feathers margined with blue.

♂. Iris dark brown; bill and feet slate-blue.

♀. Iris dark brown; bill dark horn-colour; feet slate-blue.

♂. Total length ca. 6·5 inches; wing 3·0; tail 3·2; tarsus 0·6.

♀. " 6·3 " ; " 2·9; " 2·8; " 0·6.

An allied species, *T. kibaliensis*, has recently been described by Mr. Alexander from the Kibali River [cf. Bull B. O. C. xix. p. 88 (1907)].

[The Duke of Bedford's Flycatcher was a common bird in the forest between Irumu and Mawambi. Its note exactly resembled that of *Terpsiphone emini*, and the two species might often be seen darting out from the same tree at passing insects. *T. emini* was also found in the Mpanga Forest, but *T. bedfordi* was met with only in the Eturi and Congo Forests.—*R. B. W.*]

**Terpsiphone duchaillui** Cassin.


*Techiea viridis* Reich. Vög. Afr. ii. p. 504 (1903) [part.].


Iris dark brown; bill and feet light blue.

This adult bird is in nearly black and white plumage, but some of the feathers of the back are partially chestnut; the five outer and shorter pairs of tail-feathers are white, more or less bordered with black and with black shafts.

**Terpsiphone suahelica** Reichenow. (Plate XIX. fig. 13, egg.)


b. ♂. Mokia, S.E. Ruwenzori, 3400 ft., 28th April. [No. 1449. *D. C.*]


x. ♀. Fort Beni, Semliki Valley, 3000 ft., 23rd July. [No. 3518. *R. B. W.*]

Great interest attaches to the changes of plumage in this species. Both Mr. Alexander and Prof. Neumann have recently devoted much attention to a study of the series in the British Museum. In naming the specimens in the present collection I have followed the views of the former, with which I agree. All have the outer tail-feathers chestnut, with the exception of specimen No. 1553, in which some of the outer tail-feathers as well as the middle pair are mostly white. This specimen may be a hybrid with *T. emini*. 
A single egg of this species was procured at Mokia from a small nest placed in the fork of a low tree. The male bird was shot at the nest.

The egg is of a regular oval form and slightly glossy. The ground-colour is creamy-white with small light red and dark purplish-grey spots, which are mostly concentrated in a broad zone round the larger end. It measures \(78 \times 58\) in.

This Paradise-Flycatcher was very plentiful at the south end of Ruwenzori and in the Semliki Valley. It was also seen near Entebbe, but was not met with on the range. It was breeding at the end of April and also in June.—R. B. W.]

**Terpsiphone emini** Reichenow.


*a. c.* Mpanga Forest, Port Portal, 5000 ft., 13th Sept. [No. 511. R. E. D.]

Iris dark brown; eyelids, bill, and feet blue.

This male has a rather short chestnut-coloured tail, but in other respects appears to be an adult bird. Both the upper- and underparts are of a brilliant orange-chestnut, without any shade of brown. An immature male from Toro in Mr. Jackson's collection has the underparts partially covered with new feathers of a very similar orange-chestnut, but all other male specimens in that collection are of a much browner-chestnut colour.

The British Museum did not contain an example of the present species, only the closely allied *T. Rufiventris* (Swains.) being represented. This latter resembles examples of *T. emini* in having the black occipital crest well developed, even longer, and glossed with steel-blue, while in the allied species *T. nigriceps* (Hartl.) the feathers on the crown are much shorter and of a purplish-black colour. *T. Rufiventris*, moreover, is easily distinguished from *T. emini* by having the feathers behind the eye as well as the ear-coverts chestnut instead of black, an important character which has hitherto been overlooked, though Swainson partially indicated it in his plate [cf. B. W. Afr. ii. p. 53, pl. iv. (1837)]. A male of *T. Rufiventris* in the British Museum (Gambia: Sharpe coll.) has the outer webs and tips of the greater and median wing-coverts as well as the outer margins of the innermost secondary-quills white. From this one may infer that the specimen in question is not in the fullest adult plumage.

In the Jackson Collection there is an adult male from Entebbe, shot on the 30th of May, 1904, which appears to be a hybrid between *T. emini* and *T. suahelica*. It most nearly resembles *T. emini*, but some of the greater wing-coverts and secondaries are edged externally with white and the black of the throat is continued on to the upper breast, which is mixed with grey, while the rest of the underparts are bright chestnut. There is a somewhat similar specimen (No. 1553) in the present collection, which I have already referred to under the heading *T. suahelica*.  

W. R. Ogilvie-Grant—Aves. 405
ZOOLOGICAL RESULTS OF THE RUWENZORI EXPEDITION.

TERPSIPHONE IGNEA Reichenow.

Terpsiphone ignea Dubois, Ann. Mus. Congo, i. fasc. i. p. 13, pl. vi. fig. 2 (1905).


Iris dark grey or dark brown; eyelids blue; bill bluish-grey.
The male differs from the male of T. nigriceps Hartl. in having the tail dark brown washed with rufous, instead of chestnut, and the black of the head extends over the nape, whereas in T. nigriceps it terminates on the occiput.
In neither of the male specimens is the tail fully grown, but the moult-feathers are of the same reddish-brown colour as the old ones, and there is no reason to suppose that they will ever become bright chestnut.
The female differs from the female of T. nigriceps in having the crown and nape greyish-black; this colour extending even on to the upper mantle, where it becomes paler; the throat and sides of the head dark grey and the tail reddish-brown as in the male. Younger examples of T. nigriceps have the tail very similarly coloured; but the greyish-black head and throat of the female of the present species serve to distinguish it at a glance from T. nigriceps.

♂. Total length (tail in moult) 7 inches; wing 3·1; tail 3·5; tarsus 0·6.
♀. " " 5·7 inches; wing 2·8; tail 2·4; tarsus 0·6.

I have little doubt that these birds have been correctly identified as T. ignea, a species originally described from Angola.

[This Brown-tailed Paradise-Flycatcher was not uncommon in the Congo Forest.—R. B. W.]

ELMINIA LONGICAUDA (Swainson).


Iris dark brown or dark hazel; bill and feet black.
[The Long-tailed Blue Flycatcher was seen near Entebbe and on the plains around
Ruwenzori. It was found also in the valleys up to an elevation of 6000 ft., but was by no means a common bird.—R. B. W.]

Cryptolopha alpina Grant. (Plate XII. fig. 3, ♂; Plate XIX. fig. 12, egg.)

Cryptolopha alpina Grant, Bull. B. O. C. xvi. p. 117 (1906).


This species is most nearly allied to C. umbrivirens (Rüpp.) and C. dorcadichroa Reich. & Neum., but has the underparts entirely brownish-buff and the middle of the abdomen whitish-buff. Iris dark brown; upper mandible brown, lower mandible yellow; feet dark brown. Total length ca. 4½ inches; culmen 0·5; wing 2·4; tail 2·0; tarsus 0·85.

An egg of this species is of a rather pointed oval shape and slightly glossy. It is white, spotted all over with light red and lavender-grey, especially towards the larger end. It measures 71 x 51 in.

[The Alpine Flycatcher was met with on Ruwenzori between altitudes of 10,000 and 14,000 ft., but was most plentiful among the tree-heaths which extend from 10,000 ft. to 12,500 ft. Its habits much resembled those of the Chiffchaff or Willow-Wren and it had a short cheerful song. A nest, found at the end of January, was placed on a dry ledge of rock under a great overhanging cliff; it was domed like the nest of a Chiffchaff and composed of fine grass and moss; it contained three eggs. —R. B. W.]

Cryptolopha leta Sharpe.


* Types of the species.
Iris dark brown or dark hazel; upper mandible brown or blackish, lower mandible brown or yellow; feet greenish-brown or greyish-green.

[This little bird was found on Ruwenzori at an altitude of between 6500 and 9000 ft., inhabiting the forest-zone and the lower parts of the bamboo. It was very plentiful in the forest and was usually to be seen in small flocks, which were busily searching for insects at the tops of the trees and moved along like a troop of Long-tailed Tits. It was very numerous in the Butagu Valley on the west side of Ruwenzori among the bamboo at 7500 ft.

At 10,000 ft. its place was taken by a very similar species, C. alpina, which was met with up to 14,000 ft.—R. B. W.]

Family Hirundinidae.

Cotile cincta (Bodd.).


Iris dark hazel; bill and feet black.

[A few were seen on the plains near Lake Edward at the south end of Ruwenzori. —R. B. W.]

Cotile rufigula Fischer & Reichenow.


*a, b, c, ♀ imm.* Mubuku Valley, E. Ruwenzori, 8500 ft., 7th Feb. [Nos. 144, 145. R. E. D.]

Iris dark brown; bill brown; feet light brown.

These two immature birds are in fresh plumage, some of the feathers being still in moult. The upperparts are dark sooty-brown with a distinct, though slight, oily gloss; the feathers of the chin and throat have distinct dark shafts; the rest of the underparts are sooty-brown, tinged on the breast with rufous and indistinctly margined, especially on the under tail-coverts, with pale rufous.

[A few of these Martins inhabited an open ridge in the Mubuku Valley at 8000 feet, and were seen again in a similar situation in the Laimi Valley.—R. B. W.]

Hirundo gordonii Jardine.


*Hirundo neumanni* Reich, t. c. p. 418 [N.W. Massailand].

*a*. ♂ imm. Entebbe, 3500 ft., 21st Nov. [No. 4. R. E. D.]


Both these birds are immature. I have compared an adult specimen from Wadelai
which Dr. Reichenow considers typical *H. neumanni*, with the type of *H. gordonii*. In the former the wing measures 122 mm.; in the latter 120 mm. The difference in size is therefore of no importance, and the colour of the under tail-coverts is not constant and cannot be relied on, the type of *H. gordonii* having light under tail-coverts.

[Gordon's Swallow was obtained near Entebbe, and was very plentiful on the plains at the south end of Ruwenzori.—*R. B. W.*]

**Hirundo emini** Reichenow.


*a. ♀.* 100 miles W. of Entebbe, 4000 ft., 7th Dec.  [No. 3036. *R. B. W.*]


*c. d. ♀.* " " " " 20th Jan.  [Nos. 118. *R. E. D.*; 1178. *D. C.*]


Iris brown or dark brown; bill black; feet brown or dark brown.

[Emin's Swallow was not uncommon throughout the journey from Entebbe to Ruwenzori. On the mountains it was seen up to an altitude of 8500 feet.—*R. B. W.*]

**Psalidoprocne albiceps** Sclater.


*c. ♂.* Mokia, S.E. Ruwenzori, 3400 ft., 30th April.  [No. 1465. *D. C.*]

*d. ♂.* " " " " 27th May.  [No. 3420. *R. B. W.*]

Iris dark hazel; bill black; feet brown or dark brown.

[The White-headed Rough-winged Swallow was seen near Entebbe, and from thence throughout the journey to Ruwenzori. It was very numerous on the plains near Lake Edward at the south end of Ruwenzori, and was also seen at Fort Beni on the edge of the Eturi Forest.—*R. B. W.*]

**Psalidoprocne massaica** Neumann.


*a-d. ♂ ♀.* Mubuku Valley, E. Ruwenzori, 6000 ft.  [Nos. 1093, 1113, 1135, 1136. *D. C.*]

In spite of what Dr. Reichenow and Mr. Alexander have written, I consider that Prof. Neumann was fully justified in separating the present East African form from vol. xix.—PART IV. No. 54.—March, 1910.
typical *P. holomelana* from S. Africa. *P. massaica* is readily distinguished by the paler and greyer colour of the under wing-coverts and axillaries, which are smoky-brown in *P. holomelana*; the latter also has the green gloss on the upperparts, especially on the crown, brighter.

[The Massai Rough-winged Swallow was numerous on Ruwenzori below the forest, and occurred up to an elevation of 8500 ft.—*R. B. W.*]  

**Psalidoprocne nitens** (Cassin).

*Psalidoprocne nitens* Reich, Vög. Afr. ii. p. 426 (1903); Sharpe, Ibis, 1907, p. 444 [S. Cameroon].

*Psalidoprocne nitens centralis* Neumann, Orn. Monatsb. xii. p. 144 (1904) [Eturi].


Iris dark hazel; bill black; feet brown.

The above specimen, which is a typical example of Prof. Neumann’s *P. n. centralis*, is indistinguishable from examples from Cameroon and Gaboon. The British Museum possesses a cotype of *P. nitens* from the Muni River, Gaboon (Du Chaillu). The sooty-brown throat [*cf.* Sharpe, Cat. Birds B. M. x. p. 204 (1885)] is no doubt a sign of immaturity.

[The Square-tailed Rough-winged Swallow was always to be seen in the clearings and about the native villages in the Eturi Forest.—*R. B. W.*]

**Family Picidae.**

**Dendromus caroli** Malh.


Iris dark brown; bill black; feet pale greenish-yellow.

This West African species has been already obtained in Toro by Mr. Jackson’s collectors, so its occurrence in the Eastern Congo Forest was to be expected.

**Dendromus tenuolema** (Reichenow & Neumann).


*Campothera hausburgi* Sharpe, Bull. B. O. C. x. p. 36 (1909) [Kenya].


Iris crimson; bill dark horn; feet olive.
Only male examples were included in the British Museum series, so this freshly moulted female is an interesting addition to the collection. It agrees with a female in Mr. Jackson's collection, but is more brightly coloured, especially on the underparts, which are strongly washed with greenish-yellow.

**Dendromus nubicus** (Gmelin).


d. *Mokia, S.E. Ruwenzori, 3400 ft., 10th May. [No. 1535. D. C.]*


Iris dark pink, dark red, or mauve; bill black; feet olive-green or olive-brown.

[The Nubian Woodpecker was obtained near Entebbe and all around the foot of the mountains, but it was never met with at an elevation of more than 5000 ft. —R. B. W.]

**Mesopicus ruwenzori** Sharpe.


*Mesopicus ruwenzori* Sharpe, Ball. R. O. C. xiii. p. 8 (1903) [Ruwenzori].


*f. g.* *Mubuku Valley, E. Ruwenzori, 8000 ft., 1st Mar. [Nos. 1275, 1276. D. C.]*


Iris dark pink; bill black, grey on the lower mandible; feet grey or dark grey.

The type of Dr. Sharpe's *M. ruwenzori* is undoubtedly quite a young bird, and is not really very closely related to *M. spodocephalus* (Bonap.), with which it has been compared. The adult of *M. ruwenzori* is closely allied to *M. griseoccephalus* (Bodd.) from S. Africa, but has a well-developed bright scarlet patch on the middle of the belly. Captain Shelley has wrongly identified birds from Nyasaland with the latter form, which, as a rule, has no trace of a scarlet patch on the middle of the belly, though a male specimen from Drakensburg (*E. A. Butler*) and a female specimen
from Zululand (Gordge) show traces of a dull crimson patch. The range of *M. ruwen- 
zori*, as at present known, extends from Ruwenzori to Kilimanjaro, Tanganyika, and 
Nyasaland.

[The Ruwenzori Woodpecker was obtained only at altitudes of from 6000 to 
10,000 ft., and was most plentiful in the forest-zone from 6500 to 8000 ft. It was 
nowhere numerous.—*R. B. W.*]

*Mesopicus procephalus* (Swainson).

*Mesopicus procephalus* Grant, Ibis, 1902, p. 425; Jackson, Ibis, 1902, p. 641 [Entebbe].

*a*  

60 miles W. of Entebbe, 3500 ft., 29th Nov.  [No. 1018. *D. C.*]

*b*  

Mubuku Valley, E. Ruwenzori, 5000 ft., 14th March.  [No. 1436. *D. C.*]

*c-g*  

Euwenzori, 3400 ft., 5th-24th May.  [Nos. 1503, 1508, 1545, 1617, 1619. *D. C.*]

Iris dark brown or reddish-brown; bill black, whitish on the lower mandible; feet 
dark grey.

The relations of this species have already been fully discussed in my paper quoted 
above.

[The Goertan Woodpecker was observed near Entebbe and throughout the acacia-
country at the south end of Ruwenzori, as well as in the Semliki Valley. It was 
found on the lower slopes of Ruwenzori up to about 5000 ft., but above that its place 
was taken by *M. ruwenzori* Sharpe.—*R. B. W.*]

*Mesopicus elliotti* (Cassin).

*Mesopicus elliotti* Hargitt, Cat. Birds B. M. xviii. p. 374 (1890) [type described]; Reich. Vög. 
Afr. ii. p. 185 (1902); Sharpe, Ibis, 1907, p. 443 [Cameroon].

*a*  

Mpanga Forest, Fort Portal, 5000 ft., 19th Sept.  [No. 541. *R. E. D.*]

Iris crimson; bill slate-colour; feet olive-green.

This specimen agrees in every detail with the type-specimen, which is also a male 
and was procured at the Muni River, Gaboon. The occurrence of this species in the 
Mpanga Forest, though not unexpected, is of great interest.

[A few examples of Elliot’s Woodpecker were seen in the Mpanga Forest about 
30 miles east of Ruwenzori, but the species was never met with on that range.—*R. B. W.*]

*Dendropicus zanzibari* Malh.


*Dendropicus zanzibari* Grant, Ibis, 1903, p. 211 [S. Uganda].

*a*  

Entebbe, 3500 ft., 21st Nov.  [No. 1003. *D. C.*]

Iris dark red; bill black; feet dark olive-green.
There can be no doubt that Hargitt was perfectly right in referring *Dendropicus hartiabui* Malh. to the synonymy of *Picus cardinalis* Gmel. [= *(P. guineensis* Scop.). Professor Neumann has attempted to clear up this difficult little group of Wood-peckers (cf. J. f. O. 1900, pp. 206–207); but he seems only to have added to the confusion already existing by introducing two new names, neither of which can stand.

**Dendropicus lafresnaiyi** Malh.


*f. g.♂♀*. Mokia, S.E. Ruwenzori, 3400 ft., 18th & 20th May. [Nos. 1536. D. C. ; 2374. G. L.]


Iris dark crimson; bill grey or dark horn-colour; feet olive-green.

[Lafresnay’s Woodpecker was found on Ruwenzori up to 7000 ft., following up the valleys from the plains. It was not uncommon in the acacia-country along the foot of the mountains at the south end and in the Upper Semliki Valley.—R. B. W.]

**Dendropicus pecilolamvus** Reichenow.


*Dendropicus pecilolamvus* Jackson, Ibis, 1906, p. 529 [Toro].


*a. ♂*. 60 miles W. of Entebbe, 3500 ft., 29th Nov. [No. 1019. D. C.]


*e. ♀*. Mubuku Valley, E. Ruwenzori, 5000 ft., 5th April. [No. 229. R. E. B.]

Iris dark red; bill bluish-black; legs grey, bluish, or olive-brown.

The immature male (No. 3218) has the general colour of the back greyish-brown tinged with olive, instead of golden-olive, and lacks the yellowish wash on the under parts, which are whitish-grey. The first primary-quill measures about 1 1/2 inch, and is much longer than in any of the adult birds. This specimen agrees exactly with the bird described as *D. nandensis* by Prof. Neumann. It was procured along with a typical female of *D. pecilolamvus* (No. 3217), which was marked “breeding” and was probably the parent bird.
[Reichenow's Spotted Woodpecker was obtained near Entebbe and all around the foot of the mountains. It also occurs in the valleys up to an altitude of about 5000 ft. — R. B. W.]

Family **Indicatoridae**.

**Indicator variegatus** Less.


*a–c. d* et *imm. 110–130 miles W. of Entebbe, 4000 ft., 5th–10th Dec.

[Nos. 29, 42. *R. E. D.*; 2029. *G. L.*]

Iris olive-brown; bill dark horn-colour; feet dark olive.

I have already drawn attention to the differences in plumage between the adult and young of this species in my paper on Mr. Douglas Carruthers' collection quoted above.

[The Variegated Honey-Guide was seen only during the journey from Entebbe to Ruwenzori. The note is a curious long-drawn trill.—R. B. W.]

**Indicator minor** Steph.


*Indicator pygmaeus* Reich. t. c. p. 112.


Iris dark hazel; bill black; feet olive-grey.

1 very much doubt if *I. pygmaeus* Reichenow (*= I. minor teitensis* Neumann) can be distinguished from *I. minor*, except perhaps by the most trifling difference in the size of the bill and wing. The supposed difference in the measurements given by Dr. Reichenow (Vög. Afr. ii. p. 104) is due to sex and is of no specific value, the type specimen of his *I. pygmaeus* being a female with a wing measuring about 80 mm.

The following measurements clearly illustrate the above remarks:—

<table>
<thead>
<tr>
<th>Measurements of wing.</th>
<th>Male</th>
<th>Female</th>
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<tr>
<td>Waliko, Abyssinia</td>
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<td>Wagga Mts., N. Somaliland</td>
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<td>Athi River, B.E. Africa</td>
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<td>Swaziland, S. Africa</td>
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<td>Fland's Post,</td>
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</table>
A few of these Honey-Guides were seen in the lower wooded valleys in the central part of the range, but they were never seen above an altitude of 5500 ft. — R. B. W.

**Indicator exilis** (Cassin).


Iris brown; bill and feet slate-colour.
The wing measures 2'7 inches (= 69 mm.).

The above-mentioned specimen of this small Honey-Guide (a female) was evidently breeding. The few observed were only seen in the Eturi Forest. — R. B. W.

**Family Capitonidae.**

**Lybius equatorialis** (Shelley).


Iris dark brown; bare skin round the eye pale yellow; bill whitish; feet blackish, dark brown, or grey.

(A few examples of the Equatorial Barbet were seen in the wooded valleys of Ruwenzori all along the range. The species was by no means common and was never observed above an altitude of 5000 ft. It was also seen in the Semliki Valley, near Lake Albert. — R. B. W.)

**Tricholæma ansorgei** Shelley.


Iris crimson; bill and feet black.

The type of this species, which was procured by Dr. W. J. Ansorge at Port Alice, Lake Victoria, is quite a young bird. Adult specimens have now been sent home from Entebbe (Jackson Collection) and the Mpanga Forest, and show that _T. ansorgei_ is really quite distinct from the allied _T. hirsutum_ (Swains.) from the Gold Coast. This fact was not very self-evident when only the type-specimen was available for comparison.
more especially as the feathers are wanting on the sides of the face, and in that condition it is scarcely possible to distinguish it from immature examples of *T. hirsutum*. It must be further noted that younger birds of this group have the spots on the head and back, as well as the margins of the wing-feathers, bright golden; whereas in the adult these markings are pale lemon-yellow and the crown is uniform black.

[The single specimen of Ansorge’s Barbet obtained in the Mpanga Forest was the only one seen.—*R. B. W.*]

**Tricholæma radcliffei** Grant.

*Tricholæma radcliffei* Grant, Bull. B. O. C. xv. p. 29 (1904).


b. ♂ imm. Mokia, 3400 ft., 24th June. [No. 1678. *D. C.*]  

Iris dark brown or yellow; bill and feet black.

Though some doubt has been cast on the validity of this species by Dr. Reichenow and others, it appears to be well characterised and perfectly distinct from the allied *T. lacrymosum* Cab. The adults of the present series all agree with the type-specimens from Mulema (*Doggett*). Younger birds differ from the adults in having the black spots on the sides of the underparts smaller and more oval in shape. No. 3399, a female procured by Mr. Woosnam, is of special interest as illustrating the change of plumage from the immature to the adult. When I compared *T. radcliffei* with *T. lacrymosum* I stated that the latter differed in having the underparts washed with buff instead of yellow. This, however, is not a reliable character, for specimens from Mt. Kenya (*Delamere*), which have since been added to the collection, show that in freshly-killed examples of both species the underparts are washed with yellow.

[Quite a number of Delmé Radcliffe’s Barbet inhabited the acacia-forest around the south end of Ruwenzori and the upper part of the Semliki Valley, but they were never seen on the mountains.—*R. B. W.*]

**Gymnobucco sladeni** Grant.


This species is most nearly allied to *G. peli* Hartl., but is distinguished by having the bill black. It approaches *G. cinereiceps* Sharpe in the colour of the bill and in having the feathers of the throat, as well as the basal part of the feathers of the chest, grey. It may be at once distinguished from that species by having the head covered
with feathers. Iris crimson; bare skin on head black; feet black. Total length ca. 6'2 inches; culmen 0'78; wing 3'5; tail 1'9; tarsus 0'78.

[A single specimen of Sladen’s Barbet was shot in the Congo Forest, where they are probably not uncommon. In the Mpanga Forest its place appears to be taken by the closely-allied G. cinereiceps Sharpe, of which two specimens were procured.—R. B. W.]

**Gymnobucco cinereiceps** Sharpe,


The colour of the brush-like tufts behind the nasal openings varies considerably in different individuals. In the type-specimen and other examples collected at Mt. Elgon in February the tufts are light ochre-brown. In two examples killed at Nandi in May the tufts are of much the same colour, while in birds from the Mpanga Forest killed in September and in several from the Kibera Forest, Toro, procured in January, February, and September, they are deep chestnut-brown. One example, however, from Toro, killed in October, resembles the type from Elgon, the difference in colour being no doubt due to wear. Freshly-moulted and worn birds look so different that it seems desirable to draw attention to the cause.

[Sharpe’s Grey-headed Barbet was plentiful in the Mpanga Forest. It was always observed high up in the largest trees.—R. B. W.]

**Barbatula mfumeiri** Girard.

*Barbatula mfumbiri* Grant, Bull. B. O. C. xix. p. 107 (1907); id. Ibis, 1908, p. 311 [Mufumbiro Volcanoes].

*Barbatula leucolaima nyansa* Neumann, J. f. O. 1907, p. 347.

The adult male is most nearly allied to *B. leucolaima* (Verr.), but is larger; the back black, glossed with dark bottle-green, the chest greyish-white, and the rest of the underparts duller and of a more greenish-yellow colour. In the coloration of the underparts it closely resembles *B. jacksoni* Sharpe, but the rump is pale sulphur-yellow as in *B. leucolaima* and not bright chrome-yellow. Iris dark brown or dark hazel; bill and feet black. Total length ca. 4'0 inches; culmen 0'5-0'55; wing 2'3; tail 1'15; tarsus 0'6-0'65.

The adult female is similar to the male. Total length ca. 4'0 inches; culmen 0'55; wing 2'2; tail 1'1; tarsus 0'62.


ZOOLOGICAL RESULTS OF THE RUWENZORI EXPEDITION.

\[ \textit{d-k. } \& \textit{f.} \text{. Mubuku Valley, E. Ruwenzori, 5500-7000 ft., 22nd-25th Feb. [Nos.} \\
\text{1260, 1261. } \text{D. C.; 2163, 2171, 2173, 2174. } \text{G. L.; 3180. } \text{R. B. W.} \text{.} \\
\text{]} \]

\[ \textit{l. } \& \textit{m.} \text{. Mpanga Forest, Fort Portal, 5000 ft., 13th Sept. [No. 3555. } \text{R. B. W.} \text{.} \]

The type-specimen of this species was procured by Mr. Douglas Carruthers on the Mufumbiro Volcanoes at an altitude of 6000 ft. It is precisely the same as the birds procured by the Expedition on Eastern Ruwenzori at a similar altitude. The male from the Mpanga Forest shot in September has the chest pale whitish-grey, paler than in the birds from East Ruwenzori, but in the green gloss of the upperparts and in other respects it agrees with the present species.

I am unable to distinguish typical examples of \textit{B. leucoloma} from \textit{B. l. togoensis} Neumann (\textit{cf. J. f. O. 1907, p. 347}).

[The Congo Forest teems with small Barbets, and one soon becomes so used to their persistent piping that one ceases to notice the sound. But although they exist in such numbers it is only on rare occasions that they are shot or even seen, for they have a habit of remaining motionless for long periods, perched high up in a tree, all the while emitting a succession of piping notes at regular intervals. It is most difficult to tell where the sound is coming from; and when disturbed the bird darts off among the thick foliage and is lost until it once more commences piping. This species was also plentiful in the Mpanga Forest and occurred on Ruwenzori up to 5500 ft., but was by no means numerous.—\textit{R. B. W.}]

\textbf{Barbatula centralis} Reichenow.


\[ \textit{a-c. } \& \textit{f.} \text{. Mokia, S.E. Ruwenzori, 3400 ft., 4th-21st May. [Nos.} \\
\text{217. } \text{R. E. D.; 1596. } \text{D. C.; 3316, 3357, 3365. } \text{R. B. W.} \text{.} \\
\text{]} \]

\[ \textit{g. } \& \textit{h.} \text{. Mokia, S.E. Ruwenzori, 3400 ft., 1st June. [No. 3436. } \text{R. B. W.} \text{.} \\
\text{]} \]

\[ \text{2nd July. [No. 474. } \text{R. E. D.} \]

Iris dark brown; bill and feet black.

These small Barbets require careful revision. At the present time I am sure far too many species are recognised. Prof. Neumann has recently separated a bird from the Lower Blue Nile under the name of \textit{B. chrysocoma zedlitzi}. It differs from \textit{B. chrysocoma} in having the pale portions of the feathers of the back deep golden-yellow. This character may be a good one, but among the females of \textit{B. centralis} from Mokia, S.E. Ruwenzori, No. 3316 has the light portions of the feathers of the back pure white, while Nos. 1596 and 3357, also females procured at the same time and place, have these parts pale lemon-yellow, although all are undoubtedly of the same species.

In one male the wing measures 2.4 inches; in six females it varies from 2.3 to 2.4 inches (=58–61 mm.).
In *B. chrysocoma* [= *B. c. guineensis* Reichenow, Vög. Afr. ii. p. 149 (1902)] the wing measures 2:2 inches (≈56 mm.).

This small Barbet was found only at the south end of Ruwenzori among the rather dry acacia-forest on the plains, and in the wooded valleys of the lower part of the range. It was not very plentiful.—*R. B. W.*

**Trachyphonus elgonensis** Sharpe.

*Trachyphonus elgonensis* Sharpe, Ibis, 1891, p. 122 [Mt. Elgon].


Iris crimson; bill yellow; feet greenish-grey.

The most important character by which this form may be separated from examples of typical *T. purpuratus* Verr. has been omitted in the original description, the light streaks on the fore-neck and upper chest being much less numerous and not nearly so pale in *T. elgonensis*. This character is very marked when series of the two forms are compared. The bill is certainly somewhat smaller; but the size, the crimson wash on the forehead (though a little brighter in the type-specimens), and the crimson border to the black of the throat are the same in both species.

[A single specimen of the Elgon Barbet was shot out of a small flock of six or seven birds in the Mpanga Forest, but that was the only occasion on which the species was seen.—*R. B. W.*]

**Family Musophagidae.**

*Corytheca cristata* (Vieill.).


*c. ♂. 50 miles N.W. of Fort Beni, 3000 ft., 15th August. [No. 2451. G. L.]*

Iris crimson or dark red; bill yellow, red at the tip; feet black.

[The Great Crested Touraco was common in the Congo Forest and also in the Mpanga Forest, but it was not seen on the mountains.

The beautiful deep sonorous “curu curu curu” of this bird resounding through the silent depths of the woods is one of the most impressive and characteristic sounds of the great Congo Forest.

The native (Swaheli) name for several species of Touracos is “curu curu.”—*R. B. W.*]

*Musophaga rossii* Gould,


*a. ♂. Entebbe, 3500 ft., 21st Nov. [No. 7. R. E. D.]*
Iris dark brown; bill yellow, upper mandible orange at the base; feet black.
[Lady Ross's Touraco was plentiful at Entebbe, but was not seen either in the Toro district or on Ruwenzori.—R. B. W.]

GYMNOSCHIZORHIS LEOPOLDI (Shelley).

[Aukoli]; Grant, Ibis, 1908, p. 311 [S.W. Uganda].

Iris dark brown; bare skin on the sides of the face and throat black; bill and feet black.
[A few examples of King Leopold's Touraco were seen in the acacia-trees around the south end of Ruwenzori; it was evidently a rare bird.—R. B. W.]

GALLIREX JOHNSTONI Sharpe.

Gallirex johnstoni Sharpe, Bull. B. O. C. xi. p. 57 (1901) [Ruwenzori]; id. Ibis, 1902, p. 112,

Ruwenzorinis johnstoni Jackson, Ibis, 1906, p. 523 [Ruwenzori].
b-h. ♀♀. " " " " 2nd-18th Feb. [Nos. 1209, 1210, d. 1233, 1237, 1238, 1239. D. C.; 3163. R. B. W.]

Iris dark hazel or chocolate; eyelid scarlet; bare skin in front of the eye yellow, that below and behind the eye scarlet; bill light green, black at the tip and pink at the base; feet black.

A closely allied form of this splendid Touraco has been recently discovered by Herr R. Grauer on the Mufumbiro Volcanoes *, and has been described by Prof. Neumann as Ruwenzorinis johnstoni kivunense [cf. Bull. B. O. C. xxi. p. 54 (1908)].
The fact that that species has the area round the eye feathered as in Gallirex proves that the genus Ruwenzorinis, proposed by Prof. Neumann, is superfluous.

[Johnston's Touraco inhabits the upper part of the forest-zone. It is most plentiful at an altitude of about 9000 ft., among the bamboo and Podocarpus trees, and feeds largely on the berries of the latter. It was occasionally to be found as low down as 8500 ft., but never lower, and was sometimes seen as high as 11,000 ft.

* Professor Neumann gives the locality "Western Kivu Volcanoes"; but there has evidently been some confusion about the locality, for Mount Sabjingo (or, as it is more correctly written, Sabyino) forms part of the Mufumbiro Mountains and lies to the north-east of Lake Kivu.
The note is loud and shrill, totally unlike that of *Turacus emini*, which has a low-toned musical "curung curung" repeated over and over again.

Although chiefly to be met with in the *Podocarpus* trees, birds might now and then be seen perched on the end of a long bamboo. Like its ally, *T. emini*, it was far more often heard than seen, and it was some weeks before we identified the shrill laugh so often heard among the bamboos as the voice of Johnston's Touraco.—*R. B. W.*

*Turacus emini* Reichenow.

*Turacus emini* Reich. Vög. Afr. ii. p. 50, pl. iv. fig. 2 (1902); Dubois, Ann. Mus. Congo, Zool. (4) i. fasc. i. p. 4, pl. iii. fig. 1 (1905); Jackson, Ibis, 1906, p. 523 [Ruwenzori].


n. ♂ Fort Beni, Semliki Valley, 3000 ft., 22nd July. [No. 1738. *D. C.*]

Iris dark brown; eyelid vermilion; bill black, base of the lower mandible dark red; feet black.

[The forest in the central part of the Semliki Valley on the west of Ruwenzori is undoubtedly the headquarters of Emin's Touraco, and there it was extremely numerous. It was seen throughout the eastern parts of the forest, and westwards as far as Basoko, and was not uncommon in the Mpanga Forest.

On Ruwenzori it was fairly common throughout the forest-zone, and was seen up to an altitude of about 9000 ft., but above this its place was taken by *Gallirix johnstoni*. The Touracos run so fast and so nimbly along the boughs of the trees that they appear more like squirrels than birds. They were always difficult birds to procure, and were far more often heard than seen.—*R. B. W.*]

Family *Cuculidae*.

*Centropus occidentalis* Neumann,

*Centropus monachus* Jackson, Ibis, 1906, p. 528 [Toro]; Sharpe, Ibis, 1907, p. 439 [Cameroon].

*Centropus occidentalis* monachus Neumann, Bull. B. O. C. xxi. p. 77 (1908) [Ogowe R.].

b. ♀ Fort Beni, Semliki Valley, 3000 ft., 20th July. [No. 2416. *G. L.*]

Both these examples belong to the darker-backed southern form with brown inner secondaries, which has very properly been separated by Prof. Neumann from *C. monachus* Rüpp., from Abyssinia.
The adult female (b) is in moult, and the partially grown upper tail-coverts resemble the older feathers, being black glossed with green and barred with buff. In the most adult female specimens the upper tail-coverts are uniform black glossed with green and devoid of buff bars. The uniform upper tail-coverts are apparently assumed at an earlier age by the male than by the female.

**Centropus superciliosus** Hemp. & Ehr.


a. ♀. 80 miles W. of Entebbe, 3700 ft., 2nd Dec. [No. 20. R. E. D.]
b. ♂. Mokia, S.E. Ruwenzori, 3400 ft., 26th April. [No. 239. R. E. D.]


**Adult.** Iris crimson or red (in No. 3439 dark brown); bill black; feet blue or bluish-grey.

**Immature.** Iris grey or stone-colour; bill black; feet slate-colour.

The colour of the underparts varies considerably in adult examples of this species; in some the ground-colour is strongly washed with buff, in others it is nearly white (as is the case in all adult birds from Sokotra). This difference in tint, however, is due neither to locality nor season, for two adult males (Nos. 239 and 330) from Mokia, killed respectively in April and May, represent both types of coloration.

[A few examples of the White-eyebrowed Lark-heel Cuckoo were seen near Entebbe: they were very plentiful among the acacia-trees at the south end of Ruwenzori. The flight of this bird is remarkably weak and laboured, and during windy or rainy weather it appears quite helpless and almost unable to fly. Unless hustled, it usually works its way to the top of a thorn-bush as a point of vantage, from which it makes a blundering dive into the bottom of the next bush.

In the early morning its call might be heard in every direction, and Mr. F. J. Jackson has aptly compared it with the sound of water being poured quickly from a large bottle.—R. B. W.]

Full details of the habits and call of this Cuckoo will also be found in my paper on the Birds of Sokotra [cf. Nat. Hist. Sokotra and Abd-el-Kuri, Birds, p. 43 (1903)].

**Coccystes cafer** (Lichterstein).


g. $\varphi$. Mokia, S.E. Ruwenzori, 3400 ft., 16th June. [No. 3494. R. B. W.]

Iris dark brown.

The width of the black stripes on the throat and chest appears to be a matter of age; they are much narrower in the birds of the year (such as Nos. 1470, 3417), and very much wider in the adult males (Nos. 246, 1462, 1612) [cf. remarks by Capt. Shelley, Cat. Birds B. M. xix. p. 222 (1891)].

**COCCYSTES JACOBINUS** (Bodd.).


Iris dark hazel; bill black; feet very dark grey.

**CEUTHMOCHARES AÈREUS** Vicill.

*Ceuthmochares aereus* Reich. Vög. Afr. ii. p. 73 (1902); Sharpe, Ibis, 1907, p. 440 [Cameroon]; Grant, Ibis, 1908, p. 312 [Ponthierville, Upper Congo].

*Ceuthmochares aereus intermedius* Sharpe; Reich. t. c. p. 74.

*Ceuthmochares intermedius* Jackson, Ibis, 1906, p. 528 [Toro].

Iris dark red, chestnut, or crimson; bill yellow; feet black.

**CEROCOCOXY MECHOWI** Cabanis.

*Cercococcyx mechowi* Reich. J. f. O. 1897, p. 14, pl. i. (Centrococcyx mechowi) [Togo]; id. Vög. Afr. ii. p. 84 (1902); Jackson, Ibis, 1906, p. 526 [Toro]; Sharpe, Ibis, 1907, p. 436 [Cameroon].

Iris dark brown; bill horn-colour (adult) or dark brown with the lower mandible greenish (immature); feet yellow.

Captain Shelley [cf. Cat. Birds B. M. xix. p. 265 (1891)] gives a description of this species, but states that it was only known to him at that date from the description. As a matter of fact, the British Museum contained at least two examples, but these were wrongly referred to *Cuculus solitarius* Steph., and will be found in the list of
specimens of that species catalogued as follows:—"d', e'. Imm. sk. Gold Coast (Aubin). Shelley Coll."

_C. meehowi_ is easily recognised by its much longer tail, which in the present examples measures ♀ 7-6 inches, ♂ imm. 7-4, as compared with about 6 inches in _C. solitarius._

**Cuculus solitarius** Stephen.

_Cuculus solitarius_ Reich. Vög. Afr. ii. p. 87 (1902); Jackson, Ibis, 1906, p. 527 [Ruwenzori; Toro]; Sharpe, Ibis, 1907, p. 435 [Cameroon]; Grant, Ibis, 1908, p. 312 [N.W. of Lake Tanganyika].


_♀, i, ♀. " " " " 9th & 14th May. [Nos. 1532, 1558. D. C.]_

Iris dark brown; bill black, base of the lower mandible yellow; feet yellow.

An apparently adult male (No. 1558), killed on the 14th of May, is in curious plumage. The throat is entirely grey, while the bright chestnut band which usually occupies the fore-neck and chest is merely indicated by a few rufous and buff feathers. A second adult male (No. 1532), killed at the same place on the 9th of May, is in perfectly normal plumage.

The female usually has the band across the fore-neck much paler chestnut and heavily barred with black; but in one female (No. 3083) the chestnut is quite as bright as in the male, and the black bars are less conspicuous.

Younger birds have the basal part of the outer web of the primaries barred with buff, and the innermost secondaries and greater wing-coverts narrowly margined at the tip with white.

[During January and February the forest-zone on Ruwenzori resounded with the notes of the Solitary Cuckoo; but in March and April the birds had either nearly all gone or had become silent. The call is made up of three notes, which, according to Mr. Bates, have been variously expressed "Piet-mijn-vrouw" or "Za-so-foé," meaning "Who brings the news?" It was also heard in the Congo Forest and at the south end of Ruwenzori, as well as in the Mpana Forest. On the mountains this species never ascended above an altitude of 8500 ft.—R. B. W.]

**Chrysococcyx cupreus** (Bodd.).


Adult. Iris whitish; bill and feet black.
Immature. Iris light grey; bill reddish-brown; feet dark brown.

The present series includes all stages of plumage, from the immature to the adult.

A male (No. 379) still in partially immature plumage has been marked "breeding" by Mr. Dent. Only the second primary-quill in each wing and the right-hand outer tail-feather are in the adult plumage—i.e., black with white spots.

[A few examples of the Didric Cuckoo, so called from its note, were seen on the plains at the south end of Ruwenzori and in the Upper Semliki Valley. They were breeding at the end of June.—R. B. W.]

Chrysococcyx klaasi (Steph.).

Chrysococcyx klaasi Reich. Vög. Afr. ii. p. 98 (1902); Stark & Selater, B. S. Afr. iii. p. 186 (1903); Sharpe, Ibis, 1907, p. 437 [Cameroon].

Iris dark brown; bill olive-green; feet green or olive-green.

[Only one specimen of Klaas' Cuckoo was seen on Ruwenzori, and was procured just below the forest-line. A few were seen in the acacia-forest at the south end. They were always very shy birds and difficult to approach.—R. B. W.]

Chrysococcyx flavigularis Shelley.

Chrysococcyx flavigularis Shelley, P. Z. S. 1879, p. 679, pl. 1; Reich. Vög. Afr. ii. p. 100 (1902); Sharpe, Ibis, 1907, p. 437 [S. Cameroon].

When volume xix. of the 'Catalogue of the Birds' was written in 1891 this species was not represented in the British Museum. The type, a male, which was procured at Elmina, Fantee, is now in the Stuttgart Museum, and not in the British Museum as stated by Dr. Sharpe ('Ibis,' 1907, p. 437). A male was procured by Mr. Bates at the River Ja, S. Cameroon.

[The only specimen seen was obtained in the Congo Forest in an open clearing near a village.—R. B. W.]

Vol. XIX.—Part IV. No. 56.—March, 1910.
Metallococcyx smaeagdineus (Swainson).

Chrysococcyx smaragdineus Shelley, Cat. Birds B. M. xix. p. 280 (1891); Stark & Schater, B. S. Afr. iii. p. 185 (1903).


Iris dark brown; bill light green; feet pale blue.

[The Emerald Cuckoo was seen only in the Congo Forest and in the Mpanga Forest, east of Ruwenzori. The one obtained was perched at the top of a tall dead tree and was uttering a loud shrill note.—R. B. W.]

Family Trogonidae.

Hapaloderma narina (Stephen).


Iris crimson; bill pale yellow; feet dark olive.

Hapaloderma vittatum Shelley.

Hapaloderma vittatum Grant, Cat. Birds B. M. xvii. p. 480, pl. xvi. (1892).


Adult. Iris dark claret-colour; bill pale yellow; feet black.

Immature. Iris dark hazel; bill black, yellow at the base and on the lower mandible; feet whitish.

[Both these species of Trogon were seen in the Congo and Mpanga Forests, and appeared to be rather uncommon birds.—R. B. W.]

Family Coliidae.

Colius affinis Shelley.


m, n. ♂ ♀. Mokia, S.E. Ruwenzori, 3400 ft., 1st & 6th June. [Nos. 409, 433. R. E. D.]

Iris slate-colour (November), orange, yellow, or greenish-yellow (January, May, and June); bill dark grey, culmen and lower mandible whitish; feet coral-red or scarlet.

This species was breeding at Mokia in January.

[Shelley’s Coly was plentiful on the plains all around Ruwenzori, and was also met with on the mountains up to the altitude where the forest-line commences, but not higher. Unlike C. macrurus, this species usually frequents the lower bushes, especially those overgrown with a tangled mass of creepers. It is usually to be seen in small flocks. Often on the approach of danger, instead of at once taking to flight, all the birds disappear into the bush after the manner of rats or squirrels rather than birds. If the bush is beaten, they eventually come hurrying out, and, with a great whirring of wings, fly off chattering to some adjacent thick bush, into which they at once disappear headlong.—R. B. W.]

Colius macrurus (Linn.).


Iris dark red or dark brown (in one, violet); eyelid scarlet; bill black, base of the upper mandible and cere pink; feet pink, dull red, or dark mauve.

[A few Long-tailed Colies were seen among the acacias on the plains at the S.E. of Ruwenzori, but there they were comparatively rare birds; while further round the mountains on the S.W., in an exactly similar kind of acacia-country, they were very numerous. They were seen always in small flocks of six or eight individuals, and were usually to be found among the taller trees. Their note, which is quite different from that of C. affinis, is a long-drawn clear whistle, but is not very loud, and is uttered when flying from the top of one tree to another.—R. B. W.]
Family Cyphelidae.

Cypselus maximus Grant.


b. ♂. ,, 10,000 ft., 14th Feb. [No. 154. R. E. D.]
(Types of the species.)

This species, the largest known Swift, is most nearly allied to C. africanus Temm., but is much larger and darker. The top of the head and upperpart of the body are dark sooty-brown, with a slight oily gloss; the cheeks, ear-coverts, pectoral band, and upper and under tail-coverts, as well as the outer web of the quills and the tail-feathers, are even darker, and inclining to sooty-black. The bill and tarsus are also proportionately longer than in C. africanus. Iris dark hazel; bill and feet black.

♂. Total length ca. 8'5 inches; culmen from the base of the forehead 0'78, exposed portion 0'52; wing 9'0; tail 3'35; tarsus 0'8.

♀. Total length ca. 8'8 inches; culmen from the base of the forehead 0'78, exposed portion 0'5; wing 9'2; tail 3'45; tarsus 0'81.

In C. africanus the wing-measurement is as follows:—♂, 7'9-8'4 inches; 2 ♀, 7'9-8'3.

[These Swifts were numerous about the higher altitudes of Ruwenzori, and great numbers were breeding in the high cliffs at 13,000-14,000 ft. They probably also breed as low down as 10,000 ft., where there are suitable cliffs. One bird was shot coming out of a crack in a cliff at 10,000 ft. in the Mubuku Valley. A large white-bellied Swift, which we believed to be of this species, was often seen on the plains near Lake Edward.—R. B. W.]

Family Caprimulgidae.

Caprimulgus fossei Hartl. (Plate XIX. fig. 24, egg.)

Caprimulgus fossei clarus Reich. t. c. p. 367.


Iris, bill, and feet dark brown.

The young birds have the general colour of the upperparts distinctly paler and greyer than in the adult. According to Dr. Reichenow, both the subspecies mentioned above occur at Bukoba, on the W. of Victoria Nyanza; but the fact is that the so-called
C. *f. clarus* is founded on younger specimens, which are paler and of smaller dimensions.

The five specimens mentioned above measure as follows:

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<tr>
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<th>Wing</th>
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<tr>
<td>♂ (3480)</td>
<td>6'45 (≈164 mm.)</td>
<td>5'25 (≈133 mm.)</td>
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<td>♂ (3431)</td>
<td>6'3 (≈160 mm.)</td>
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<td>♂ (3432)</td>
<td>6'0 (≈153 mm.)</td>
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<td>♂ imm. (313)</td>
<td>6'0 (≈153 mm.)</td>
<td>4'5 (≈114 mm.)</td>
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<tr>
<td>♀ imm. (312)</td>
<td>6'1 (≈156 mm.)</td>
<td>4'1 (≈104 mm.)</td>
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According to Dr. Reichenow, the two first-mentioned specimens should be referred to *C. fossei* and the remaining three to *C. f. clarus*.

Two eggs of this species were procured at Mokia on the 10th of July by Mr. R. B. Woosnam. They have the usual Nightjar type of coloration, and measure respectively 1'15 x 0'8 and 1'0 x 0'8 in. One example will be found figured on Plate XIX. fig. 24.

"The Mozambique Nightjar was numerous on the plains around the south end of Ruwenzori. They were often to be seen in the evenings flying in and out close to the ground among the acacia-trees. They were fond of settling on the euphorbia-trees to make their "jarring" cry.—R. B. W."

**Caprimulgus ruwenzorii** Grant.


*a*. ♂. Mubuku Valley, E. Ruwenzori, 9000 ft., 3rd March. [No. 182, R. E. J. *Type of the species.*]

This species is most nearly allied to *C. fronsatus* Salvad., but is altogether darker, especially on the underparts, the belly and under tail-coverts, like the breast, being entirely barred with black and buff. The white spot on the inner web of the first primary is small, situated on the margin, and does not extend more than halfway across the web; the two outer pairs of tail-feathers have the terminal half white (2'4 inches deep on the outer pair), the brown on the margin of the outer web extending almost to the tip; a group of buff spots on the middle of the chest. Iris dark brown; bill black; feet brown. Total length ca. 9'0 inches; wing 6'2; tail 4'25; tarsus 0'66.

A second male example, which is no doubt of this species, was procured in Likipia by Mr. L. C. Harwood when collecting for Lord Delamere. The tail of this bird is missing.

*C. pectoralis* Cuv., from S. Africa, is another closely allied species, but lacks the group of buff spots on the chest; it, however, resembles *C. ruwenzorii* in having the primary-quills from the 5th inwards black barred with chestnut.

[A few of these Nightjars inhabited an open ferny ridge on Ruwenzori at an elevation of from 8000–9000 ft. This species was not obtained on the plains below.—R. B. W.]
ZOOLOGICAL RESULTS OF THE RUWENZORI EXPEDITION.

CAPRIMULGUS NATALENSIS Smith.


a. σ. 80 miles W. of Entebbe, 3500 ft., 2nd Dec. [No. 1029. D. C.]

_Iris_ dark brown; _bill_ brown; _feet_ flesh-colour or light brown.

These specimens agree perfectly with birds from Natal. Mr. Alexander has recently described two very closely allied species or rather subspecies of this group, viz. _C. chadensis_, from Lake Chad, and _C. gabonensis_, from Gaboon [cf. Bull. B. O. C. xxi. p. 90 (1908)].

[The Natal Nightjar was seen near Entebbe, and a few were met with on the plains at the south end of Ruwenzori; but it was not a common bird.—R. B. W.]

COSMETORNIS VEXILLARIUS (Gould).


_Cosmetornis vexillarius_ Jackson, Ibis, 1906, p. 520 [Toro].

_Iris_, _bill_, and _feet_ dark brown.

The large series of this species collected by the Expedition includes all stages of plumage of both the male and female.

[The Pennant-winged Nightjar was extraordinarily numerous on the dry plains at the S.E. end of Ruwenzori between the foot of the mountains and Lake George. It was no uncommon sight in the evenings to see fifteen or twenty of these curious-looking birds drifting about around the camp, performing curious antics high in the air—diving, flopping, and twisting about like Lapwings, and often looking more like tattered pieces of paper blown by the wind than anything else.

The long pennant-like feathers were just beginning to make their appearance in the first week in May.
These Nightjars were also seen at Fort Beni and Irumu, but never in such numbers as at the south end of Ruwenzori.—R. B. W.]

**Family Bucerotidae.**

*Ceratogymna atrata* (Temm.).


*a.♂*. Irumu, Eturi Forest, 3000 ft., 18th Oct.  [No. 571. R. E. D.]

Iris crimson; bill dark horn-colour; feet black.

[A few examples of the Black Hornbill were met with in the Eturi Forest.—R. B. W.]

**Bycanistes subquadratus** Cabanis.

*Bycanistes subquadratus* Grant, Cat. Birds B. M. xvii. p. 419 (1892).


*a, b.♂*. 20 miles W. of Entebbe, 25th Nov.  [Nos. 9, 10. R. E. D.]

Iris dark brown; bill brown, white at the base of the casque; feet black.

Dr. Reichenow considers that the W. African *B. subcylindricus* Sclater is founded on immature examples of *B. subquadratus* Cab.; but he overlooks the fact that the type of *B. subcylindricus*, a female, is a perfectly adult bird, having lived for eight years in the Zoological Society’s Gardens, Regent’s Park. As stated in the description and shown in the figure (P. Z. S. 1870, p. 668, pl. xxxix.), it has the greater wing-coverts black.

In addition to the specimens from Entebbe in the present collection there are two adult birds (sex not indicated) from the same neighbourhood in the British Museum. All these four specimens have the greater wing-coverts black widely tipped with white, and at present I see no reason for supposing that *B. subquadratus* is synonymous with *B. subcylindricus*, unless it can be proved that the latter is the female and the former the male of the same species. In other species of the group the plumage of the sexes is the same, and the only external difference is to be found in the shape of the casque.

[This Hornbill was plentiful throughout the journey from Entebbe to Ruwenzori, but was never seen on the mountains. It was very numerous in the Mpanga Forest to the east of Ruwenzori. When flying, its wings make almost as much noise as those of a Swan, and its vocal powers are tremendous. Three or four would sometimes perch on the top of a tall tree and hold a concert, a most extraordinary din of raucous sawings.—R. B. W.]
Count Salvadori has recently described a large Hornbill (*Bycanistes aloysii*) [cf. Boll. Mus. Tor. xxi. no. 542, p. 1 (1906)] procured in the neighbourhood of Entebbe by the Duke of the Abruzzi. It is said to differ from *B. subquad2ratus* in having the terminal third of the two middle tail-feathers white. I have no doubt that the middle pair of tail-feathers are missing in the specimen described, and that the second pair have been mistaken for them. In that case *B. aloysii* should be referred to the synonymy of *B. subquad2ratus*.

**Lophoceros fasciatus** (Shaw).


*a.* 2. Fort Beni, Semliki Valley, 3000 ft., 24th July. [No. 3524. R. B. W.]

Iris brown; bill red and cream-colour; feet black.

**Lophoceros melanoleucus** Licht.


*Lophoceros suahelicus* Neumann; Jackson, Ibis, 1906, p. 516 [Toro].


Iris pale yellow or pale cream-colour; bill red, with a margin of yellow at the base; feet black.

[A few examples of the White-and-Black Hornbill were seen up to 6500 ft., but they were only stray visitors from the plains below.—*R. B. W.*]

Family **UpupiDae.**

**Upupa africana** Bechst.


Iris dark brown; bill black; feet grey.

[No other example of the African Hoopoe was seen.—*R. B. W.*]

**Irrisor viridis** Licht.

*Irrisor viridis* Grant, Ibis, 1902, pp. 433, 434.


Iris dark brown; bill and feet red.
This specimen appears to belong to the smaller shorter-tailed South African form of *I. erythrorhynchus* (Lath.), but the white wing-band is somewhat wider, as in specimens from Swaziland (*cf.* 'Ibis,' 1902, p. 434). Specimens collected by Doggett at Mulema, S. Uganda, are typical long-tailed examples of *I. erythrorhynchus* (*cf.* Grant, 'Ibis,' 1905, p. 209).

[The Lesser Red-billed Wood-Hoopoe was shot among the acacia-trees on the plains at the south-east end of Ruwenzori.—*R. B. W.*]

**Irrisor jacksoni** Sharpe.


Iris dark hazel; eyelid red; bill and feet red.

[Jackson's Wood-Hoopoe was often seen in the Eturi Forest and in the Mopanga Forest, east of Ruwenzori. It was generally seen in flocks of a dozen or more individuals, climbing about high up in the trees.—*R. B. W.*]

**Rhinopomastus schalowi** Neumann.


*Rhinopomastus schalowi* Jackson, Ibis, 1906, p. 517 [Toro].

*a. ♀. Mokia, S.E. Ruwenzori, 3400 ft., 26th April. [No. 1438. *D. C.*]


*c. Mokia, S.E. Ruwenzori, 3400 ft., 2nd June. [No. 3440. *R. B. W.*]

Iris dark brown; bill and feet black.

All the above specimens, with the exception of No. 311, are typical *R. schalowi*, with a broad white subterminal bar on the outer tail-feathers. In No. 311, which is a female, the white subterminal markings on the two outer pairs of tail-feathers are much reduced, being merely spots of white. This bird is therefore a typical example of *R. cyanomelas* (Vieill.) from S. Africa, and should perhaps be referred to that form.

[Schalow's Wood-Hoopoe was very plentiful in the acacia-forest on the plains around the south end of Ruwenzori; but it was never seen on the mountains.—*R. B. W.*]
Family Meliphagidae.

Melittophagus oreobates Sharpe.


\[ b. \] Mubuku Valley, E. Ruwenzori, 6000 ft., 29th Dec. [No. 1070. D. C.]


\[ e, f. \] Mubuku Valley, E. Ruwenzori, 6000-7000 ft., 8th & 16th Feb. [Nos. 2149, 2156. G. L.]

Iris crimson or dark red; bill black; feet brown, olive-brown, or grey.

Two eggs were taken by Mr. Gerald Legge from a nest in a hole in a bank in the Mubuku Valley on the 16th of February and the female bird (No. 2156) was shot off the nest. They are of the usual rounded oval type, very glossy, and pure white. They measure \( 9 \times 7.5 \) cm.

[A few Cinnamon-breasted Bee-eaters were seen along the lower slopes of E. Ruwenzori and were occasionally met with up to an altitude of 8000 ft. They were not very plentiful.—R. B. W.]

Melittophagus meridionalis Sharpe.

*Melittophagus meridionalis* Sharpe, Cat. Birds B. M. xvii. p. 45, pl. i. fig. 4 (1892); Reich. Vög. Afr. ii. p. 307 (1902); Jackson, Ibis, 1906, p. 518 [Toro].

\[ a, b. \] 80-100 miles W. of Entebbe, 3500-4100 ft., 1st & 4th Dec. [Nos. 1020, 1033. D. C.]

\[ c. \] Mubuku Valley, E. Ruwenzori, 5000 ft., 14th Mar. [No. 2195. G. L.]

\[ d. \] Ad. Mokia, S.E. Ruwenzori, 3400 ft., 2nd-18th May. [Nos. 2363, 2364, 2366. G. L.]

\[ m-q. \] Mokia, S.E. Ruwenzori, 3400 ft., 2nd-14th June. [Nos 414, 418, 430. R. E. D.; 2399, 2400. G. L.]

**Adult.** Iris dark red or crimson; bill black; feet dark grey, brown, or black.

**Immaature.** Iris brown; bill black; feet brown or grey.

[This Bee-eater was seen near Entebbe and was plentiful around Ruwenzori, but was never met with above an altitude of 6000 ft. It was very numerous at the south end of the range.—R. B. W.]
Merops albicollis Vieill.


Iris scarlet or dark red; bill black; feet brown or dirty yellow.

It is difficult to understand for what purpose Dr. Reichenow has followed Reichenbach and separated this species generically from Merops; even the character said to be found in the slight difference in the shape of the wing is not constant.

Merops apiaster Linn.


Iris crimson (a), pale chestnut (b); bill black; feet brownish-black.

Both these immature birds are in somewhat worn plumage. In specimen a many of the adult chestnut feathers of the mantle are partially grown, but are still mostly concealed by the green plumage characteristic of immaturity.

[A few examples of the Common Bee-eater were seen near Entebbe, and a small flock was met with in the Luimi Valley on Ruwenzori at an altitude of 6000 ft.—R. B. W.]

Merops persicus Pall.


a. ♀. Mokia, S.E. Ruwenzori, 3400 ft., 22nd April. [No. 2282. G. L.]

b. ♂ imm. , , 19th May. [No. 3386. R. B. W.]

Iris dark brown; bill and feet black.

No. 2282 is a fine specimen almost entirely in freshly moulted plumage. No. 3386 is probably the young of this species, but in some respects it nearly approaches M. superciliosus, and may be the result of interbreeding.

Merops superciliosus Linn.


Iris scarlet or dark crimson; bill black; feet grey.

No. 2376, though in most respects a typical example of the present species, has the
white superciliary stripe tinged with greenish-blue and the crown mixed with feathers of a similar colour; possibly this colour is due to wear alone, as the greenish feathers are all in a worn condition, while the new and partially grown feathers are olive-brown. It would be interesting to know to what extent, if at all, this species interbreeds with the closely allied *M. persicus*.

**Family Coraciidae.**

*Eurystomus afer* (Lath.).


Iris dark brown; bill yellow; feet grey or dark olive-green.

Wing: ♀ 169 mm., ♂ 172 mm.

*Eurystomus rufobuccalis* Reichenow.


This form is easily distinguished from *E. afer* by having the rump and median upper tail-coverts chestnut-brown like the back, instead of blue; while the underparts lack the dark shafts to the feathers which form rather a conspicuous character in *E. afer*.

The wing measures: — ♂ 181–182 mm.; ♀ 178 mm.

**Family Alcedinidae.**

*Halcyon chelicutensis* (Stanley).


*Halcyon chelicutensis* Jackson, Ibis, 1906, p. 516 [Toro]; Grant, Ibis, 1908, p. 315 [N.W. of Lake Tanganyika].


b, c. ♀♂. " " " 1st & 22nd June. [Nos. 1666. D. C.; 3438. R. B. W.]*

Iris dark brown; upper mandible dark red in the male, black in the female, lower mandible red; feet red.

[The Striped Kingfisher was plentiful on the plains round the south end of Ruwenzori. It seems to prefer the dry acacia-country to the streams or lakes.—*R. B. W.*]
Halcyon semicyaneus (Forsk.).

Halcyon centralis Jäckson, Ibis, 1906, p. 516 [Toro].

R. E. D.; 1478. D. C.]
d. ♀. Mokia, S.E. Ruwenzi, 3400 ft., 16th June. [No. 460. R. E. D.]

Adult. Iris dark brown; bill and feet red.
Immature. Iris dark brown; bill brown; feet chocolate.

[The African White-headed Kingfisher was plentiful on the plains at the south end
of Ruwenzi, and was always seen among the dry acacia-country.—R. B. W.]

Halcyon pallidiventris Cab.

H. s. swainsoni Neumann, J. f. O. 1905, p. 190.
Halcyon semicyaneus hyacinthinus Reich.; Neumann, J. f. O. 1905, p. 190.

a. ♂. Mokia, S.E. Ruwenzi, 3400 ft., 10th May. [No. 2358. G. L.]

Iris dark brown; bill and feet red.

It must be evident to anyone who has read Smith's original description of Halcyon
swainsoni (cf. S. Afr. Quart. J. 1834, p. 143) that Dr. Reichenow is wrong in uniting
that bird with H. pallidiventris Cab. Smith writes that the "back, middle of the
wing, and tail are blue with a green gloss" in H. swainsoni, whereas in the present
form they are deep hyacinth-blue or purplish-blue. H. swainsoni is said to have been
procured in the interior of South Africa, a somewhat vague locality.

Halcyon senegalensis (Linn.).

(1902).

a-g. ♂ ♀ et ♀ imm. Mokia, S.E. Ruwenzi, 3400 ft., 4th-23rd May. [Nos.
i. ♀. Fort Beni, Semliki Valley, 3000 ft., 21st July. [No. 486. R. E. D.]

Iris dark brown; upper mandible red, lower black; feet black.

[The Senegal Kingfisher was plentiful in the acacia-forest on the plains around the
south end of Ruwenzi and was seen at Fort Beni on the edge of the Emri Forest.
It was never found near water, but seemed to frequent only the rather dry country
covered with acacia-trees. It has a curious loud trilling note, difficult to describe.—
R. B. W.]
Halcyon cyanoleucus (Vieill.).


b. ♀ imm. " " " 20th May. [No. 351. R. E. D.]

Iris hazel or dark brown; upper mandible red, lower black (red at the base in the younger bird); feet black.

This species closely resembles *H. senegalensis*, and occurs side by side with it over the greater part of its range. It has been distinguished by its bluish head and larger size, but, curiously enough, the character by which it is most easily distinguished, viz. the black band behind the eye, has of recent years been lost sight of, though mentioned and figured by Dr. Sharpe [Mon. Alced. p. 189, pl. 69 (1869)]. It is a very constant character and found in the young as well as in the adult birds.

Halcyon badius Verh.


Iris dark hazel; bill red; feet dark reddish-brown.

Ispidina picta (Bodd.).


*Ad*ult. Iris dark hazel; bill and feet red.

*Immature.* Iris dark brown; bill black; feet salmon-pink.

[The little Rose-cheeked Kingfisher was not uncommon along the edge of Lake Edward and was also often to be seen in the dry acacia-country.—*R. B. W.*]

Myioceyx ruficeps (Hartl.).


Iris dark brown; bill and feet scarlet.

[The small Chestnut-headed Kingfisher was met with in the forest, but not in the vicinity of water.—*R. B. W.*]
Corythornis cyanostigma (Rüpp.).


[The Malachite-crested Kingfisher was plentiful along the edge of Lake Edward. It was also often seen in the dry acacia-country.—*R. B. W.*]

Cerule rudis (Linn.).


a, b. ♂. Mokia, S.E. Ruwenzori, 3400 ft., 29th April. [Nos. 3291, 3292. *R. B. W.*]

Iris dark brown; bill and feet black.

[The Pied Kingfisher was very numerous on Lake Edward and on the Semliki River. —*R. B. W.*]
ZOLOGICAL RESULTS OF THE RUWENZORI EXPEDITION.

g-i. 2 et 2 imm. Mokia, S.E. Ruwenzori, 3400 ft., 19th June. [Nos. 1647, 1648, 1649. D. C.]

Iris orange or red; bill and feet black or grey.

P. reichenowi is at best a poor subspecies of P. meyeri (Cretzsch.), the upper-parts being, as a rule, somewhat darker brown than in Abyssinian specimens.

Dr. Reichenow admits no less than five subspecies of P. meyeri; but of these, two at least, P. m. virescens Reichenow and P. m. matschiei Neumann, are, in my opinion, indistinguishable from typical examples of P. meyeri from Sennar. I think that in P. transvaalensis and P. damaresiensis the lower back and rump are always bluer than in P. meyeri, irrespective of season (cf. remarks by Mr. Boyd Alexander, 'Ibis,' 1900, p. 429).

In two quite freshly moulted males of P. reichenowi (Nos. 283 and 357), killed in May, the lower back, rump, and upper tail-coverts are bright grass-green like the breast and belly. As the plumage becomes worn these parts become bluer, as is clearly shown by the series before me, which includes specimens procured in June, August, November, and December.

[Reichenow's Parrot was seen throughout the journey from Entebbe to Ruwenzori; it was not seen on the mountains, but was plentiful in the acacia-country at the south end of the range and in the Semliki Valley.]

This Parrot was never very easy to approach, as it was always careful to fly out on the opposite side of the tree, usually defeating its pursuers. Its flight is straight and extremely swift.—R. B. W.]

Family Bubonide.

Syriurn suahelicum Reich.

Iris dark hazel; bill and feet yellow.
[One example of this eastern form of Woodford's Owl was procured on Ruwenzori at an altitude of about 7000 ft., where the bamboo and forest intermingle; but it must be a rare bird on the mountains.—R. B. W.]

Glaucidium perlatum (Vieill.).

Glaucidium perlatum Reich. Vög. Afr. i. p. 674 (1901); Grant, Ibis, 1908, p. 315 [N.W. of Lake Tanganyika].
Iris light yellow; bill yellowish-green; feet yellow.
[A few examples of this Pigmy Owl inhabited the acacia-country around the south end of the range, but they were by no means common. I only once heard their curious note, which is a succession of whistles forming an ascending scale with equal intervals.—R. B. W.]

*Bubo lacteus* (Temm.).


Iris black; bill pale horn-colour; feet grey.
[A few examples of Verreaux's Eagle-Owl were seen in the acacia-forests on the plains to the south-east and south-west of Ruwenzori.—R. B. W.]

**Family Falconidae.**

*Elanus caeruleus* (Desf.).


The Black-shouldered Kite has the iris orange-red, the bill black, and the cere and feet yellow.

*Milvus aegyptius* (Gmel.).


b. ♂. " " " 8th Feb. [No. 150. R. E. D.]

Adult. Iris dark brown; bill and feet yellow.
Immature. Iris dark brown; base of the upper mandible and the lower mandible yellow, rest of the upper mandible dark brown; feet yellow.
[The Egyptian Kite was numerous on the plains around the mountains, but more so on the east side than on the west. It was met with up to an altitude of 7000 ft., but was not observed above that elevation. On the 7th of March, on the east side of the mountains, a great company of Kites, not less than 300, was seen in the evening. They were circling round and round, high in the air, like Rooks, and travelling towards the north. On the 10th of August, on the west side of the range, a similar sight was witnessed, and the birds were again travelling in a northerly direction.—R. B. W.]

*Helotarsus ecaudatus* (Daud.).


a. ♂. Mokia, S.E. Ruwenzori, 3400 ft., 9th June. [No. 441. R. E. D.]
Iris chestnut; cere orange; bill orange-yellow, tip dark horn-colour; feet orange.

[The Bateleur Eagle was occasionally seen on the lower slopes and on the plains below the mountains. The one obtained was shot by Mr. Dent with a small-bore rifle while it was soaring at an altitude of some 400 ft. in the air.—R. B. W.]

**LOPHOÆTUS OCCIPITALIS** (Daud.).


Iris dark yellow; cere yellow; bill horn-blue, blackish at the tip; feet yellow, claws black.

[The Black-crested Eagle was occasionally seen on Ruwenzori up to an altitude of 10,000 ft.—R. B. W.]

**BUTEÔ AUGUR** (Rüpp.).


Iris brown; bill dark grey; cere yellow; feet yellow.

[The Augur Buzzard was not met with above an altitude of 7000 ft.—R. B. W.]

**BUTEÔ AUGURALIS** Salvad.


Iris hazel (male) or whitish (female); bill black, horn-blue at the base; feet yellow.

[The Lesser Augur Buzzard was not uncommon on Ruwenzori up to an altitude of 8000 ft., and was occasionally seen up to an elevation of 12,500 ft.—R. B. W.]

**BUTEÔ DESERTORUM** (Daud.).

*Buteo desertorum* Reich. Vög. Afr. i. p. 594 (1901); Jackson, Ibis, 1906, p. 512 [Ruwenzori; Toro].

Iris dark yellow; bill black; cere yellow; feet yellow.

In this example of the African Buzzard the wing measures 13·4 inches (=340 mm.).

The tail is greyish-brown tinged with rufous and has nine dark cross-bars; in the fully mature bird the tail-feathers are chestnut with indistinct bars.
Melierax gabar (Daud.).


The Red-faced Goshawk has the iris yellow, the bill black, the cere yellow, and the feet red.

*Circus macrurus* (Gmel.).


*a. ♂ imm. 120 miles W. of Entebbe, 4000 ft., 9th Dec. [No. 2026. G. L.]*

Iris light yellow; bill black; feet yellow.

An immature example of the Long-tailed Harrier with the entire underparts pale fawn-colour.

_Accipiter melanoleucus_ Smith.


Iris light brown; cere yellow; bill black, light blue-grey at the base; feet yellow.

A fine adult example of this giant Sparrow-Hawk, which is an extremely rare bird in the mature plumage.

[The Great Black-and-White Sparrow-Hawk is a rare bird on Ruwenzori. A pair was often seen in the Mubuku Valley, flying about over the forest, or just below it.—R. B. W.]

Family _Anatidae._

_Anas sparsa_ Eyton.

_Anas sparsa_ Reich. Vög. Afr. i. p. 115 (1900).


Iris dark brown; bill pinkish-white, mottled with black; feet orange.

[The Black Duck was occasionally seen on the larger rivers on Ruwenzori up to an elevation of 12,000 ft. In January one or two pairs were breeding in a broad swampy part of the Mubuku Valley at about 10,000 ft.—R. B. W.]

_Querquedula circa_ (Linn.).

_Anas querquedula_ Linn.; Reich. Vög. Afr. i. p. 121 (1900).


*a. ♂. Fort Portal, Uganda, 5000 ft., 5th March. [No. 2176. G. L.]*

Iris hazel; bill black; feet slate-grey.

[The Garganey was met with only on a small crater-lake near Fort Portal, where it was not very common.—R. B. W.]
Sarcidiornis melanotus (Pennant).


a. ♀. Fort Portal, Uganda, 5000 ft., 1st July. [No. 3497, R. B. W.]

Iris dark brown; bill black; feet grey.

[A flock of about twenty examples of this Comb-Duck was seen on a small crater-lake near Fort Portal. This was the only occasion upon which they were met with.—R. B. W.]

Family Otididæ.

Lissotis melanogaster (Rüpp.).

Otis melanogaster Reich. Vög. Afr. i. p. 256 (1900) [part.].


Lissotis locati Grant, Ibis, 1902, p. 453, pl. xi. & text-fig. 10.

a, b. & ♀. 12 miles W. of Entebbe, 3500 ft., 24th Nov. [Nos. 1009. D. C.; 3003. R. B. W.]

When separating the southern black-winged form of Lissotis from the Abyssinian species, L. melanogaster (Rüpp.), by an unfortunate oversight I renamed the Abyssinian bird L. locati. This mistake was pointed out by Mr. Oberholser, who has now named the southern black-winged form L. notophila.

[A few examples of the White-winged Bustard were met with on the plains around the south end of Ruwenzori, but they were rather uncommon. A pair was also seen near Entebbe.—R. B. W.]

Family Oedicnemidæ.

Oedicnemus vermiculatus Cabanis. (Plate XIX. fig. 17, egg.)


a, b. & ♀. Mokia, S.E. Ruwenzori, 3400 ft., 26th May. [Nos. 3418, 3419. R. B. W.]

Iris pale yellow, speckled with brown; bill black, yellow at the base; feet pale dirty yellow.

An egg of this species procured by Mr. Woosnam is much like that of Oedicnemus (L.). It is of a slightly pointed oval shape and almost devoid of gloss. The ground-colour is pale buff, heavily blotched and spotted with dark brown markings, which form a partial ring round the larger end, and there are underlying small spots of lilac-grey. It measures 1·8 × 1·32 inch.

[A few examples of the Vermiculated Thick-knee were met with on the plains around the south end of Ruwenzori, and a nest containing a single egg was found among the gravel on the shores of a small salt-lake at Kikerongo, S.E. Ruwenzori.—R. B. W.]
Family **Parridae.**

**Phyllopezu$^*$ africanus (Gmel.).**


\[a. \delta^* \text{ Entebbe, 3000 ft., 15th Nov. [No. 2001. G. L.}]\]

Iris dark hazel; upper mandible slate-blue, lower mandible darker; feet slate-blue. [The African Jacana was seen on Victoria Nyanza and on a small crater-lake near Fort Portal.—R. B. W.]

Family **Glareolidae.**

**Glareola pratincola** (Linn.).


\[a-d. \delta^* \text{ Mokia, S.E. Ruwenzori, 15th June. [Nos. 3481, 3482, 3483, 3484. R. B. W.]}\]

Iris dark brown; bill black, red at the gape; feet dark brown. [Great numbers of Pratincoles frequented the open shores of a small salt-lake at the south-east end of Ruwenzori in June and the early part of July.—R. B. W.]

**Galactochürs** emini (Shelley).


\[a. \delta^* \text{ Fort Beni, Semliki Valley, 3000 ft., 19th July. [No. 481. R. E. D.]}\]

Iris dark brown; bill black, red at the base; feet red. [Numbers of Emin's Pratincole were seen flying up and down over the rapids on the Semliki River. The species was met with again on the Aruwimi River, near its junction with the Congo.—R. B. W.]

Family **Charadriidae.**

**Lobivanellus lateralis** (Smith).


\[a. \delta^* \text{ Mokia, S.E. Ruwenzori, 3400 ft., 12th June. [No. 450. R. E. D.]}\]

Iris stone-colour; eyelids yellow; wattles yellow, red at the tip; bill yellow, tip black; feet yellow. [A few examples of this Wattled Lapwing were seen around the shores of Lake George and among the native cultivations.—R. B. W.]

**Stephanibyx inornatus** Swainson.

a, b. ♀. Mokia, S.E. Ruwenzori, 3400 ft., 2nd–5th May. [Nos. 1480, 1505. D. C.]
Iris pale yellow; bill and feet black.
[This Plover was occasionally seen on the plains near Lake Edward.—R. B. W.]

**TOTANUS OCHROPUS** (Linn.).


Iris dark brown; bill olive-brown; feet olive.
[A few Green Sandpipers were seen on the rivers on Ruwenzori up to an altitude of 10,000 ft.—R. B. W.]

**GALLINAGO NIGRIPENNIS** Bonap.


*a. ♂ 80 miles W. of Entebbe, 3500 ft., 2nd Dec. [No. 1028. D. C.]*

*b. ♂. Basoko, Upper Congo River, 1500 ft., 16th Nov. [No. 600. R. E. D.]*
Iris dark hazel; bill brown or dark brown; feet greyish-green or pale yellow.
[A few examples of this Snipe were seen near Entebbe and also on the Congo near Basoko, where one was obtained.—R. B. W.]

**Family RALLIDÆ.**

**CREX CREX** (Linn.).


[This was the only example of the Corn-Crake met with during the Expedition.—R. B. W.]

**CREX EREGIA** (Peters).


*a. ♀ imm. Mokia, S.E. Ruwenzori, 3400 ft., 10th June. [No. 442. R. E. D.]*
Iris hazel; eyelids yellowish-brown; bill and feet greyish-brown.
[Two examples of this Crake were seen on the plains to the S.E. of Ruwenzori.—R. B. W.]
Family COLUMBIDE.

VINAGO CALVA (Temmin.).

Vinago calva Reich. Vög. Afr. i. p. 394 (1901); Grant, Ibis, 1908, p. 316.

Iris light blue; cere and basal part of the bill pink, tip white; feet yellow.
[This Green Fruit-Pigeon was very plentiful in the Congo Forest. It was to be seen flying about in small flocks of from 10 to 15 individuals, which usually kept to the tree-tops.—R. B. W.]

HAPLOPELIA JACKSONI Sharpe.

Haplopecia jacksoni Sharpe, Bull. B. O. C. xiv. p. 93 (1904) [Ruwenzori].

Iris dark reddish-brown, purple, or mauve; bill black; feet dark pink or dull red.
The type of this species is a quite immature bird, as is evidenced by the shape of the bill, which is long and thin, and by the rufous edges of the secondary-quills and of some of the wing-coverts.
The present collection contains two fully adult male examples: these differ from the type in their larger size and greyer underparts, shading into whitish on the belly, while the grey tips of the tail-feathers are much wider (1.3 inch) and much more sharply defined.
The adult female differs from the male. The upperparts are earth-brown, shading into brony-rufous on the upper mantle, nape, and occiput, and there is no trace of the grey, violet- or green-glossed, mantle which characterises the male; the entire underparts below the neck as well as the under tail-coverts are rich vinous.

Another specimen (No. 2262), which has been marked "♂" by Mr. Legge, has the upperparts like those of the two adult males mentioned above, but the underparts are rich vinous like those of the female. It is difficult to account for this intermediate plumage, for the immature male type, though obviously a quite young bird, does not differ much from the adult male in the colour of the underparts, which are mostly grey suffused with vinous on the breast.
A quite young female example has the upperparts earth-brown, as in the adult female, but the quills and wing-coverts are margined with rufous and the feathers of
the forehead are whitish, tipped with brown; the chin and throat are white; the breast narrowly barred with dark brown and rufous; and the belly and under tail-coverts rufous, shading into lighter brown on the sides and flanks.

<table>
<thead>
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<th>Wing Length</th>
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<td>6:3 inches</td>
</tr>
<tr>
<td>d</td>
<td>(No. 1335)</td>
<td>6:1</td>
</tr>
<tr>
<td>d</td>
<td>immature (No. 2262)</td>
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</tr>
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<td>d</td>
<td>adult (No. 3125)</td>
<td>6:2</td>
</tr>
<tr>
<td>d</td>
<td>immature (No. 1170)</td>
<td>5:6</td>
</tr>
</tbody>
</table>

I may here remark that *H. seimundi* Sharpe, from Fernando Po, and *H. plumbeceens* Sharpe, from Efulen, S. Cameroon, are the adult and young of one and the same species, the latter name having priority. An adult male example recently sent home by Mr. Bates from the River Ja, S. Cameroon, agrees perfectly with the type of *H. seimundi*.

[Jackson's Dove was found only on Ruwenzori; it frequented the forest and lower half of the bamboo-zone and, though not uncommon, was a difficult bird to procure. We often saw a Dove in the same region which appeared to be smaller and almost black in colour, but it was always met with among the thickest and darkest parts of the forest and for some months we failed to obtain a specimen. We nicknamed this bird the "Black Dove." Eventually Mr. Carruthers shot what we believed to be a "Black Dove," and it proved to be a young example of *H. jacksoni*. Whether this was really the bird we named the "Black Dove" or not is uncertain, for it was always very shy and remarkably strong on the wing, and never conveyed the impression of being an immature bird.—*R. B. W.*]

**Columba arquatrix Temminck.**


Iris dark grey, eyelids yellow; bill and feet bright yellow.

Dr. Reichenow has described as *C. sjöstedti* an allied species from Cameroon with the head entirely grey.

[The Spotted Wood-Pigeon was found on Ruwenzori up to 10,000 ft. In December vast flocks frequented the lower slopes of the mountains, but early in March not one was to be seen in the same locality, though higher up the mountains, at 8000–9000 ft., they were numerous from the middle of February till the middle of March. They
were feeding upon the berries of the *Podocarpus* trees, and were then quite unfit for human food; indeed, they are probably poisonous if eaten constantly, as we found to our cost.—*R. B. W.*]

**Columba unicincta** Cassin.


This species is new to the British Museum. There are examples in the Jackson Collection.

[This fine Wood-Pigeon was plentiful both in the Congo and in the Mpanga Forests, but was an extremely difficult bird to obtain, as it frequented the tops of the tall trees. Although its deep mournful cooing was constantly to be heard, it was seldom seen within shot. It was not met with in the forest-zone on Ruwenzori, although at certain times *C. arquatrix* was numerous there.—*R. B. W.*]

**Turtur senegalensis** Linn.

*Turtur senegalensis* Reich. Vög. Afr. i. p. 496 (1901); Grant, Ibis, 1908, p. 316 [N.W. of Lake Tanganyika].

*Stigmatopelia senegalensis* Jackson, Ibis, 1906, p. 509 [Toro].

*a. 2.* 100 miles W. of Entebbe, 4100 ft., 6th Dec. [No. 1041. *D. C.*]


Iris dark hazel; bill black; feet dull red.

[The Senegal Turtle-Dove was very plentiful on the plains in the dry acacia-country around the south end of Ruwenzori, but was not seen on the mountains. It was met with near Entebbe and Fort Portal.—*R. B. W.*]

**Turtur damarensis** Finsch & Hartl.

*Turtur capicola damarensis* Reich. Vög. Afr. i. p. 414 (1901); Grant, Ibis, 1905, p. 263 [Mulema].


Iris dark hazel; bill black; feet dull red.

[The Damaraland Turtle-Dove was plentiful at the foot of the mountains around the south end of Ruwenzori, but did not appear to occur above 5000 ft. It was always a remarkably shy bird.—*R. B. W.*]
TURTUR SEMITORQUATUS (Rüpp.).


*Streptopelia semitorquata* Jackson, *Ibis*, 1906, p. 508 [Entebbe; Ruwenzori].

*a*. ♂. 12 miles W. of Entebbe, 3500 ft., 24th Nov. [No. 1008. D. C.]


Iris dark hazel, with a ring of red or orange; eyelids red; bill black; feet red, dull red, or pink.

[The Half-collared Turtle-Dove was plentiful all round the range and ascended to the lower margin of the forest-zone, but was never seen above 7000 ft.—R. B. W.]

TYMPANISTRIA TYPANISTRIA (Temm.).


*a*. ♂. 120 miles W. of Entebbe, 4200 ft., 8th Dec. [No. 1048. D. C.]


*a*. ♂ imm. " " 5000 ft., 14th March. [No. 2198. G. L.]


Iris dark hazel; bill black, dark reddish-brown, or mauve; feet dull red.

[This beautiful Dove was occasionally seen on Ruwenzori up to 7000 ft. It was rather uncommon below the mountains, but was met with throughout the journey.—R. B. W.]

CHALCOPELIA AFR A Linn.


*a*. ♂. 12 miles W. of Entebbe, 3500 ft., 24th Nov. [No. 1007. D. C.]


Iris dark hazel, eyelids red; bill red, pink, or mauve; feet red or pink.
All these specimens appear to be typical examples of *C. afra* Linn., with the wing-spot purple in freshly moulted specimens, but this colour becomes green with wear and exposure.
[The Purple-spotted Dove was met with from Entebbe to Fort Portal and all round the foot of the mountains, but was never seen above 6000 ft.—R. B. W.]

**Family Turnicidae.**

*Tornix nana* Sundev.


*c.* 17th June. [No. 1643. D. C.]

Iris grey or hazel; bill brown or horn-colour; feet brown or flesh-colour.
[This little Button-Quail was met with only on the dry plains around the south end of Ruwenzori.—R. B. W.]

**Family Phasianidae.**

*Coturnix delegorguei* Deleg.


*a.* Southern Ruwenzori, 3000 ft., 23rd June. [No. 2411. G. L.]

Iris hazel; bill black; feet flesh-colour.
[Delegorgue's Quail was a rather uncommon bird and appeared to frequent those localities where the grass was very short and the soil dry.—R. B. W.]

**Excalfactoria adansonii** (Vert.).


*d.* 4th & 17th June. [Nos. 1642. D. C.]

Iris red, dark red, or pink; bill black; feet yellow.
[A few examples of Adanson's Painted Quail were seen on the plains round the south end of Ruwenzori.—R. B. W.]
**Francolinus schuetti** Cabanis.


Iris dark brown; bill and feet bright red.  

[Schüett's Francolin was not uncommon in the Toro district above 4000 ft., and was occasionally seen on the east side of Ruwenzori up to 6500 ft. It was not found at the south end of the range, its place being taken by *Pternistes cranchi.*—R. B. W.]

**Francolinus icterorhynchus** Heugl.


Iris dark brown; bill and feet yellow.  

[A few examples of this Francolin were seen near the north end of Ruwenzori between the Semliki River and Irumu. They might sometimes be seen perched on the lower branch of a tree.—R. B. W.]

**Francolinus mulemæ** Grant.

*Francolinus mulemæ* Grant, Ibis, 1905, p. 212 [Mulema, S. Uganda].


Iris dark brown; bill dark horn-colour; feet olive-yellow.  

This Francolin was first procured by the late Mr. Doggett at Mulema, S. Uganda, and in S.W. Ankoli.

**Pternistes cranchi** (Leach). (Plate XIX. fig. 8, egg.)


*f-h.♂ et ♀ vix ad.* Mokia, S.E. Ruwenzori, 3400 ft., 13th–19th June. [Nos. 1626, 1634, 1651. *D. C.*)]  

Iris dark brown; bare skin round the eye and on the throat red; bill and feet red.  

Six eggs of this species are of a blunt oval shape and somewhat glossy. They are uniform pale lilac-buff, rather finely pitted and mottled all over with white. They measure from 1·52 to 1·55 inch in length and 1·8 in width.
[Cranch’s Bare-throated Francolin was numerous on the plains among the acacia-country around the south end of Ruwenzori. It was seldom seen during the heat of the day, but towards sunset its hoarse call resounded on all sides and the old cocks were often to be seen perched on the top of an ant-heap. *P. cranchi* was met with in the Toro district up to 4000 ft., its place being taken above that altitude by *Francolinus schuetzi*. A nest of this species was found at the edge of a native path; the eggs, six in number, were placed in a slight hollow lined with a little grass and feathers, under the shelter of a large tuft of grass.—*R. B. W.*]

**Numida pilorhyncha** Licht.


*Numida pilorhyncha toruensis* Neumann, J. f. O. 1904, p. 410 [Toro].

a. **♂**. 70 miles W. of Entebbe, 3700 ft., 29th Nov. [No. 18. *R. E. D.*]
b. **♂**. Mokia, S.E. Ruwenzori, 3400 ft., 28th May. [No. 3423. *R. B. W.*]
c. **♂**. **♀**. **♀**. 9th June. [No. 386. *R. E. D.*]

Iris dark brown; bill horn-colour or brown, base of the upper mandible reddish; wattles and bare skin blue; feet dark brown or dark grey.

[The Abyssinian Helmeted Guinea-fowl was not found on Ruwenzori, but was numerous below the mountains in the more open country, especially at the south end of the range.—*R. B. W.*]

**Guttera cristata** (Pall.).


*Guttera cristata suahelica* Neumann, l. c. pp. 14, 31 [Lindi, German E. Africa].


Iris dark brown; bill horn-colour; bare skin on the head blue, and on the throat and fore-neck red; feet black.

[A large flock of these Crested Guinea-fowl was met with in the Eturi Forest near Fort Beni.—*R. B. W.*]
On some Points in the Anatomy of *Bradypterus cinnamomeus*.


**I. Introductory.**

The following short notes on the pterylosis and certain muscles of the wing and leg in *Bradypterus cinnamomeus* were made on a single specimen, preserved in spirits, taken on Western Ruwenzori at an altitude of 7000 feet. This specimen is now in the British Museum (Natural History) (vide ante, p. 355).

**II. Pterylography.**

Since the pterylosis of this bird presents no very striking peculiarities, it will not be necessary to describe each tract minutely; only those features, in short, which seem to be peculiar to this genus, and possibly some allied forms, will be described in detail.

*Pteryla capitis* (text-fig. 14 a, *pt.cap*.)—This tract is very thickly feathered, the continuation of the *apterion colli lateralis*, which in *Phylloscopus*, for example, extends forwards to embrace the whole side of the head as far as the eye—save for a circle of feathers surrounding the aperture of the ear,—is here only traceable with difficulty, and is interspersed with tiny semi-plumes, as also is the *apterion colli laterale* throughout its length.

*Pt. spinalis* (text-fig. 14 a, *pt.sp*.)—The most striking feature of this tract is the broad fan-shaped saddle which is formed over the middle of the back, terminating immediately over the pre-acetabular ilium.

*Pt. caudalis* (text-fig. 14 a, *pt.c*.)—There are 10 rectrices, which have rather stiff shafts and loose, almost discontinuous vanes.

*Pt. colli ventralis* (text-fig. 14 b, *pt.col.v*.)—This tract, from the middle of the neck forwards to its junction with the *pt. capitis* at the throat, is reduced to a double row of small weak feathers. Rather below the middle of the neck it bifurcates, forming two broad well-defined bands, which, passing backwards, merge with the *pt. ventralis*.

*Pt. ventralis* (text-fig. 14 b, *pt.vent*.)—This tract is rather broad; at the level of the knee, however, it suddenly narrows and is continued backwards on either side of the abdomen, finally converging to meet in front of the cloacal aperture.

*Pt. femoralis* (text-fig. 14 a, *pt.fem*.)—Though narrow, this tract is sharply defined and extends in a transverse direction from the middle of the thigh backwards to the base of the rectrices.
Pt. cruralis (text-fig. 14 b, pt.cr.).—This is not a very sharply defined tract, and the feathers become semi-plumous towards the knee.

Pt. buneralis (text-fig. 14 a, pt.h.).—Sharply defined and narrow, this tract offers no peculiarities worthy of special comment.

Pt. alaris:—

Metacarpo-digital remiges or primaries (text-fig. 15, p. 456).—The tenth, counting from the wrist outwards, relatively long, extending as far as the distal \( \frac{3}{4} \) of the 9th remex; the covert of this remex is very short. The 5th to 7th remiges subequal, and longest in the wing. The extreme shortness of the outer primaries is a noticeable point. Secondaries 9, but the 9th much reduced.

The coverts offer no points calling for comment.

The Podotheca.—The acropodium is covered by 3 large and 3 small distal scutes; the planta by a single plate.

The Claws are moderately large and strong.
The Rhamphotheca.—There is the faintest perceptible trace of a notch at the tip of the beak, and the nostrils are somewhat pear-shaped in outline, tapering forwards. They are protected by a membranous operculum having a thickened free edge, and the aperture posteriorly exposes a portion of a turbinal scroll.

Rictal bristles are barely traceable; the aperture of the ear is large and opens upwards and forwards.

Pterylosis of Bradypterus compared with allied Forms.

Unfortunately it has been found impossible to institute a series of comparisons between the pterylosis of Bradypterus and any considerable number of allied forms. An attempt has been made, however, towards this much desired end by contrasting Bradypterus with one or two genera which are at any rate distantly allied.

Text-fig. 15.

The extended wing of Bradypterus, showing its rounded character.

Bradypterus differs from Sylvia and Phylloscopus in the shape of the dorsal expansion of the pt. spinalis, which is fan-shaped and of considerable width, and this constitutes a striking difference, since in the genera just referred to this region of the tract takes the form of a long oval. Bradypterus differs even more from Acrocephalus, for in the latter this expansion is of a Α-shape, the stem and arms being very broad; they join two similar but very slender arms, which rapidly converge and form a narrow stem, continued backwards to the uropygium. Thus a small more or less diamond-shaped apterium is formed immediately over the pre-acetabular region of the ilium.

Acrocephalus, Sylvia, and Phylloscopus all agree, however, in having rictal bristles, and these are barely traceable in Bradypterus. Bradypterus, again, is peculiar among these genera on account of the great length of the 10th primary.

Acrocephalus, on the other hand, is peculiar in the specialized character of its feet, since the toes and claws are conspicuously long, while the plantar surface of the toes
shows a decided adaptation to the bird's mode of life—clinging to reeds; and this because the proximal portion of the toes, and especially of the hallux, is markedly expanded and closely granulated, so as to afford a hold of smooth-stemmed rushes. There is no approach to this in the foot of Bradypterus.

III. Myology.

The condition of the deltoideus major and gastrocnemius muscles only need be described for the purposes of this paper.

Wing-Muscles.

The deltoideus major in Bradypterus is in a condition rather more primitive than that of the Whitethroat and Chiffchaff, but is slightly more specialized than in Acrocephalus; while in all these genera this muscle has preserved more of its primitive character than is usual among the Passeres.

Text-fig. 16.

The longus division (text-fig. 16, d.m.l.) is divisible into two layers. The outer rises from the inner aspect of the expanded free end of the furcula; while the inner and immediately underlying moiety, which is nearly as large as the outer, arises from the acrocoracid. These two divisions, obviously derived from a two-headed condition of a single muscle, fuse midway down the arm to be inserted in the form of a thick fleshy stump on to the ectepicondylar process of the humerus, but distinct from the delt. maj. brevis.
The *brevis* portion is of large size, extending the whole length of the humeral shaft. With regard to its origin it may be noticed that, in addition to the usual attachment to the *os humero-scapulare* (text-fig. 16, o.h.s.), it has also a ligamentous slip from the neck of the scapula.

In *Acrocephalus* the *longus* division has similarly two points of origin, and fusion between the two moieties does not take place till midway down the arm. The muscular belly thus formed is continued downwards to be inserted in common with the tendon of the *brevis* division. This tendon looks, indeed, as if it really belonged to the *d. m. brevis*, and as if the *longus* division had grafted itself on to the *brevis* portion just before this passes into tendon.

**Leg-Muscles.**

Of the leg-muscles of *Bradypterus* only the gastrocnemius is of sufficient interest to demand notice here.

The external head is very thick, fleshy, and spindle-shaped; the belly terminates in a point rather below the middle of the tibial shaft, where it gives place to a long tendon joined almost at once by the tendons of the middle and tibial heads. The belly, at about its middle, and just below the biceps loop, sends off a thin sheet of muscular fibres to the middle head.

The tibial, like the external head, is very strongly developed, and ends in a point running parallel with, and anchored to, the tendon proper to this head by a thin sheet of tendinous tissue. The tendon, it will thus be seen, is rather peculiar, for, instead of forming a continuation of the extremity of the fleshy portion of the muscle, it is given off from the post-axial border of the belly—that is to say, the tendinous portion of the muscle becomes concentrated rather high up, and not at the end of the muscle as is usual.

The middle head is short and thick, and sharply truncated distally, giving place very suddenly to a tendinous sheet which runs parallel to, and is fused with, the tendon of the tibial head just described. Lower down the leg, however, this tendinous sheet develops a fairly well-marked and typical tendon along its middle, and this eventually joins the tendons of the external and middle heads. But this head shows a decided tendency to fuse with the tibial head, and this condition is actually reached in the Whitethroat, where it passes into the tibial head near the middle of that division.

In *Acrocephalus* the middle head is extremely feeble, taking the form of a thin sheet of muscle terminating abruptly as in *Bradypterus*, and attached, as it were, to a delicate tendinous sheet stretched between the terminal halves of the fleshy bellies of the external and internal heads. Not until this sheet has nearly approached the ankle-joint is the characteristic tendon developed.

Not the least interesting fact about the gastrocnemius of *Bradypterus* is the fact that the fused tendons of the external and tibial heads are ossified. This ossification
extends downwards to about the level of the distal \( \frac{1}{6} \) of the tibial shaft, and upwards along each tendon as far as the fleshy portion of its respective muscle.

My attention was drawn to this fact by Mr. Woosnam, who, in skinning specimens of this bird, found these tendons difficult to sever.

IV. Summary.

Owing to the fact that I had but a single specimen of *Bradypterus* for dissection, which it was desirable to keep as complete as possible, and but little material for the purposes of comparison, it is not possible to say anything definite as to the probable systematic position of this genus. It is certainly distinctly separable from the genera with which it has been compared. My colleague Mr. Ogilvie-Grant is inclined to think it may stand somewhere near Cetti's Warbler, and I hope shortly to have specimens of that bird for dissection in order that this point may be tested.

The relatively shallow keel on the breast-bone and the great development of the gastrocnemius muscle show that it is not much addicted to flight, and the peculiar, almost discontinuous character of the tail-feathers may be taken as further evidence on this head.
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TRANSACTIONS
OF
THE ZOOLOGICAL SOCIETY
OF LONDON.

Vol. XIX.—Part 5.
(Plates XX-.XXIV.)

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The collection of Mammalia formed by the members of the Ruwenzori Expedition is, perhaps, both for number and quality, the finest ever made in any one locality in Africa, the British Museum set alone consisting of 363 perfectly prepared modern skins and 62 spirit-specimens, representing 85 species and subspecies, of which no less than 34 have proved to be new. In addition, a considerable number of duplicates have been distributed.

This excellent result is due partly to the extreme richness of the Fauna, which combines elements of Congo, Cameroons, Uganda, and Great Lakes origin, and partly to the fact that no less than three members of the Expedition had had previous and successful experience in mammal-collecting—Messrs. Woosnam and Dent in Bechuanaland, and Mr. Carruthers in Palestine. All were trained and enthusiastic trappers, and, as a result, in spite of the climatic conditions under which they worked, the preparation of the skins is absolutely perfect.

So rich and varied, however, is the Fauna of Ruwenzori that no doubt much still remains to be done, especially among such forms as are not to be obtained by trapping, the list of Monkeys, Bats, and Ungulates being particularly likely to be increased in the future, while the series of Rodents is probably more complete in proportion than that of any other group.

As was to be expected, a considerable number of new species were discovered by the Expedition, many of them of a very striking and distinct character. Particularly noticeable are Cercopithecus denti, Rousettus lanosus (the Mountain Fruit-Bat), Lophuromys woosnami, Otomys dartmouthi, and Faniscinurus carruthersi.

* For explanation of the Plates, see pp. 520–528.
† Of these, 42 specimens were obtained by Mr. Douglas Carruthers on Lake Kivu and the Upper Congo after the main work of the Expedition was over, including the new forms Cercopithecus leucamayx aurora, Faniscinurus antonios, and Lophuromys laticeps.

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Mr. Woosnam's observations on the habits and local ranges of the species are added
to our notes on the specimens, with his initials appended to them.


Family Cercopithecidae.

1. Colobus occidentalis Rochebr.
   \( \sigma \) 145. Mokia, S.E. Ruwenzori.
   \( \varphi \) 169, 170. Mpanga Forest, Fort Portal.
   The second species of Colobus mentioned by Mr. Woosnam was most probably *C. ruwenzorii*.
   [Colobus Monkeys were very rarely seen on Ruwenzori, but they occasionally ascended as high as 8500 ft., the limit of the forest-zone. Another species of Colobus was numerous in the Mpanga Forest east of Ruwenzori. The Red Colobus was not met with, and must be very rare in the district.—R. B. W.]

[Colobus ruwenzorii Thos.
   Type obtained by Sir H. H. Johnston. No additional specimens were brought home by the Expedition.]

[Colobus rufomitratus tephrosceles Elliot.
   Discovered by Sir H. H. Johnston in 1900. From the Ruahara River, 4000 ft.]

2. Cercocebus albigena johnstoni Lyd.
   \( \sigma \) 172. \( \varphi \) 173. Mpanga Forest, Fort Portal.
   In the existing doubt as to the proper allocation of *C. aterrimus* Oudemans, we follow Mr. Pocock, and use the name *C. johnstoni* for these specimens.
   [A few of these Monkeys were seen in the Mpanga Forest, but they were not at all common. They were not found on Ruwenzori.—R. B. W.]

3. Cercopithecus ascanias schmidti Matsch.
   \( \sigma \) 171. Mpanga Forest, Fort Portal.
   [Not found on Ruwenzori, but plentiful in the Congo and Mpanga Forests. In the Congo Forest it is a common sight to see the small native bows adorned with the red tails of this Monkey, slipped on to the unstrung bow while the skin is green.—R. B. W.]

   184. Avakubi, E. Congo Forest.
   A member of the *C. campbelli-mona* group, but not darkened on the posterior back and hind limbs, and with a very sharply contrasted white belly.
   Upper surface of head and neck olive-grey, the usual light frontal band present but not conspicuous. Back dark grizzled chestnut-brown (nearest to "umber-brown" of 3 s 2
ZOOLOGICAL RESULTS OF THE RUWENZORI EXPEDITION.

Ridgway); colour of rump not darker, but, on the contrary, passing gradually into the paler tone of the hips and hind legs. Under surface from chin to anus, and inner sides of limbs to wrists and ankles, clear creamy white, very sharply defined from the darker colour, not only on the limbs, as in C. campbelli and others, but also along the flanks, where the white rises nearly halfway up the lateral aspect of the animal. Ears with short yellowish tufts rising from their inner surfaces. Outer sides of fore limbs deep black from elbows. Hind limbs grizzled yellowish-olive, lighter than the back, down to and including the ankles; the metatarsals and toes black. Tail indistinctly blackish above at the base, then dull greyish white for two-thirds of its length, darkening again to black on its terminal third.

Dimensions of the type (measured in the flesh):—

Head and body 501 mm.; tail 850; hind foot 155; ear 40.

Skull: greatest length 105 mm.; basal length 75; breadth of brain-case 55; length of upper cheek-tooth series 23.

Hab. Between Mawambi and Avakubi, E. Congo Forest; alt. 3000 ft.

Type. Adult male. B.M. no. 7.1.2.1. Original number 184. Collected 23rd October, 1906, by Mr. R. E. Dent.

This handsome Monkey is most nearly allied to the W. African C. campbelli, but differs by its grizzled olive-yellowish instead of black hind limbs, the absence of black on its posterior back, its more or less greyish-white tail, and by the high and sharply defined line separating the colours of the flanks and belly.

Cercopithecus dentic is one of the most striking discoveries made by the members of the Expedition. A figure of it has already been published.

[This was the only example seen of this beautiful Monkey. The white belly rendered it almost invisible from below.—R. B. W.]

5. Cercopithecus leucampyx carruthersi Pocock.

♀. 225. Mubuku Valley, E. Ruwenzori. 10,000 ft.

6. Cercopithecus leucampyx stuhlmanni Matsch.

♂. 176. ♀. 177. Mpanga Forest, Fort Portal.

[These Monkeys were numerous on Ruwenzori up to 9500 ft., also in the Congo and Mpanga Forests. They were most numerous on Ruwenzori, just where the forest and bamboo zones intermingled, at 8500 ft., for, like the Chimpanzees, they frequent the bamboo zone in search of the young shoots on which they feed. While thus occupied they are occasionally surprised and killed by leopards, and probably on this account they are most frequently seen where the bamboo and forest are mixed, where they have a safe retreat.—R. B. W.]
7. *Cercopithecus leucampyx aurora*, subsp. n.

A *Cercopithecus* intermediate between the *C. leucampyx* and *C. albogularis* groups, with the dark limbs and belly of the former and the bright coloured back of the latter.

Size about as in *C. l. stuhlmanni*. Fur very long (50 mm.) on back, still longer on shoulders (70-80 mm.). General colour above near "buff-yellow" (rather paler and brighter); individual hairs white at the base, passing into pale buffy-yellow with three black rings (rings and intervals about 3 mm. each). The head, unfortunately, is missing, but the dorsal coloration is carried on to the nape. On the points of the shoulders it becomes much darker, the individual hairs being black almost to the base with three yellow rings (each 3 mm.) towards the point. The outer sides of the thighs greyish-black, the hairs pale slate-grey with a subterminal black ring (3 mm.) and a white tip (2-3 mm.). Tail losing almost immediately (within 100 mm. from base) all trace of the dorsal yellow colouring, and taking the same greyish coloration as the outer side of thighs, at first with the white colour in excess, then gradually through an increase of black shading into pure black at the extreme tip (100 mm.). Arms to the shoulders, belly, and inner side of thighs pure black, the hairs black to their bases.

Tail short, barely 700 mm. in length, as compared with 900 mm. in an example of *C. l. stuhlmanni*.

*Hab.* South end of Lake Kivu.

*Type.* Adult male. B.M. no. 7.7.4.1. Collected and presented to the Museum by Mr. Douglas Carruthers.

This handsome Monkey, while resembling the members of the *C. albogularis* group in its yellow dorsal colouring, is easily distinguishable from all of them by its dark hind limbs and black belly, in which it resembles the members of the *C. leucampyx* group.

Family *Lemuridae.*

8. *Galago thomasi* Elliot.


♂ 634, and ♀ in spirits. Fort Beni, Semliki Valley.

♂ 688, 689. Mpanga Forest, Fort Portal.

Described on these specimens by Prof. Elliot.

[This little Lemur was not seen on Ruwenzori, but it is difficult to believe that it is not to be found in some of the wooded valleys below 6000 ft., for it was found in the Congo Forest at Fort Beni, and in the Mpanga Forest it was extraordinarily numerous. It is entirely nocturnal, and appears to spend the day, not in the treetops, but low down in the undergrowth or in the dense masses of tangled creepers on the lower branches and tree-trunks. Late in the evening, when it is almost too dark to see, it suddenly appears, and its shrill chirrup may be heard in all directions. It]
mounts swiftly from the undergrowth to the tops of the trees, passing from tree to tree with great agility, often making considerable jumps. If disturbed in the daytime it moves quite slowly, almost like a chameleon.—R. B. W.]

9. Eidolon helvum K.\(\text{e}\).r.
\(\sigma\) (imm.) in spirits. Between Mawambi and Avakubi, E. Congo Forest.

Dr. K. Andersen, F.Z.S., has recently * shown that the above is the correct name of the widely distributed Bat usually known as Cynonycteris, Rousettus, or Pterocyon stramineus, Geoff.

10. Rousettus lanosus Thos. (Plate XX.)
\(\varphi\) 116. Mubuku Valley, E. Ruwenzori. 13,000 ft.
\(\varphi\), & young in spirits. Mubuku Valley, E. Ruwenzori. 13,000 ft.

A member of the \(R.\) leachi group, the limbs being thickly covered with hair.

Size and general characters about as in \(R.\) leachi. Fur loose and shaggy, very abundant, its limits not sharply defined as in \(R.\) leachi; that on the head about 8 mm. in length, mixed with a large number of much longer hairs, attaining over 20 mm. On the back the fur is thick and woolly, passing out on to the proximal half of the upperside of the forearms, and continued thickly down the hind-limbs and the wing-membrane, external to them, to the ankles, the feet being also thinly clothed above. Interfemoral thickly furry above, except just along its posterior margin. Below, the wings are thinly hairy to a point level with the middle of the forearm, the hind-limbs and interfemoral membrane being also less thickly haired than on the upper surface. Ears narrow, rather longer than the muzzle. Palatal ridges as in \(R.\) leachi.

General colour above bistre-brown, becoming warmer posteriorly; head darker. Under surface near broccoli-brown, but with a yellowish suffusion; some of the longer hairs quite yellow.

Skull rather more delicately built than in \(R.\) leachi, the bones thinner and lighter, muzzle rather longer and narrower; postorbital processes very thin; anterior palatine opening unusually broad.

Teeth conspicuously smaller throughout, each molar and premolar slightly shorter and very much narrower than in the allied species.

Dimensions of the type (measured on the spirit-specimen):—

Forearm 88 mm.

Head and body 134; tail 16, tail free from membrane 9; head 46; ear 23; third finger, metacarpus 60, first phalanx 41, second phalanx 57; lower leg and foot (c. u.) 62.

Skull: length to tip of nasals 42; basal length 37.5; zygomatic breadth 25; breadth of brain-case 17.4; palate length from anterior palatine foramina 19; breadth of palatine foramina 3.4; length of upper tooth-row from front of canine 14.5; the same below, 16.2; first upper molar 2.3 x 1.2.

Hab. Mubuku Valley, E. Ruwenzori. 13,000 ft.

Type. Adult male (in spirits). B.M. no. 6.7.1.2. Collected by Mr. R. B. Woosnam. Three specimens obtained.

This species is allied to R. leachi, but is at once distinguishable from that and every other species by the thick woolly covering of its hind limbs and its remarkably narrow molars.

The occurrence of a Fruit-Bat at such an altitude as 13,000 ft. is very remarkable.

It is interesting to note that this and the following species differ from all other members of the genus in having the wing extending to the second toe, while the present form is further differentiated by the obsolescence of the antetragal lobe.

This Bat frequented the cliffs and caves on Ruwenzori at 12,000-13,000 ft., but did not appear to spend the night at this altitude, as numbers always flew down the valley in the evening, apparently to feed. There was certainly nothing above 10,000 ft. for such a Bat to feed upon, and nothing above 7000 ft. but Podocarpus berries; but it is remarkable that only one example of this species was caught in the nets set at 6000 ft., while R. angolensis was caught by dozens. Possibly it is very uncommon; the greatest number seen in an evening at 12,500 ft. was six. The native name for this and all other large Bats in the district is “Bihukusi.”—R. B. W.

11. Rousettus angolensis Bocage.


[Very plentiful in the lower valleys of Ruwenzori, but not seen above 6500 ft. Native name “Bihukusi.”—R. B. W.]

12. Epomops franqueti Tomes.

♂. 167. 30 miles N.W. of Port Beni, Semliki Valley.

[A few seen in the Congo Forest, but not at all common.—R. B. W.]


Epomophorus sp. inc. Woosnam, antea, pt. i. p. 17 (1909).

♀. 109, and ♀ in spirits. Mubuku Valley, E. Ruwenzori. 5000 ft.

♂. 150, 151. ♀. 152. Mokia, S.E. Ruwenzori. 3400 ft.
Pending the revision of the group by Dr. K. Andersen we give the above provisional names for the two Epaulet Bats obtained.

[Only a few of these Bats were met with on Ruwenzori; they were not seen above 6500 ft., and were more plentiful on the plains below.—R. B. W.]

Family *Megadermatidae.*


♂. 144, 289; 134, 142, 143. ♀. 135, 672; 288, 295, 300, 301, 669, 670, and 5 in spirits. Mokia, S.E. Ruwenzori. 3400 ft.

[These Bats were never seen on the mountains, but were very plentiful among the acacia-trees on the plains around the south end of Ruwenzori at an altitude of 3400 ft. They spent the day hanging up in the trees fully exposed to the sun, and were not easy to approach, as they took flight at the least alarm. The natives distinguished this Bat from all others, and called it “Bihuguhugu.”—R. B. W.]


♀. 149, 673. Mokia, S.E. Ruwenzori. 3400 ft.
1 ♂, 2 ♀ in spirits. Mubuku Valley, E. Ruwenzori. 5000 ft.

[Occasionally seen up to 5500 ft. on Ruwenzori. They were most numerous among the acacia-trees on the plains around the south end of the range. Native name “Kasalamatwi.”—R. B. W.]


♂. 165, 166. Fort Beni, Semliki Valley. 3000 ft.
♀ in spirits. Between Mawambi and Avakubi, E. Congo Forest.

[These little Bats are not uncommon in the Congo Forest, but, like all small Bats in such a place, they were extremely difficult to obtain. They were never caught in a long net set between the trees, and shooting them as they dived in and out among the trees was almost impossible, and still more impossible is it to find them when shot. They were occasionally seen flying low over the water on the Aruwimi River. —R. B. W.]

Family *Vespertilionidae.*


6 in spirits. Mubuku Valley, E. Ruwenzori. 5000 ft.
These little Bats inhabited chiefly the banana-plantations, and were found on Ruwenzori up to 6000 ft.—R. B. W.]

18. Pipistrellus pulcher Dobs.
$\sigma$ . 602. W. of Entebbe.
[A single specimen obtained near Entebbe, the only example met with by the Expedition.—R. B. W.]

♀ in spirits. Between Mawambi and Avakubi, E. Congo Forest.

Family Emballonuridae.

20. Taphozous peli Temm.
♀ in spirits. Between Mawambi and Avakubi, E. Congo Forest.
$\sigma$ . 158. Fort Beni, Semliki Valley. 3000 ft.
[Vast numbers of these Bats were to be seen in the Congo Forest, but they were not seen anywhere else. They hang up only in the trees and never in the houses.—R. B. W.]

$\sigma$ . 201. W. of Entebbe.
$\sigma$ . 320. Manyuna, Upper Congo (Douglas Carruthers).
[A single specimen of this Bat was obtained in one of the rest-houses near Entebbe. The only example I saw.—R. B. W.]

[Nyctinomus aloysii-sabaudiae] Festa.
Discovered by the Duke of the Abruzzi. Forearm 51 mm.

Family Soricidae.

22. Myosorex blarina Thos. (Plate XX.)
$\sigma$ . 252. Mubuku Valley, E. Ruwenzori. 10,000 ft.
1 in spirits. Mubuku Valley, E. Ruwenzori. 10,000 ft.
A dark short-tailed species with the mole-like appearance of $M.$ sclateri talpinus. Size rather less than in $M.$ sclateri. Fur thick and mole-like; hairs of back about 8 mm. in length; a number of interspersed longer hairs on the rump attaining 12–13 mm. General colour blackish-brown, slightly iridescent, very much as in $M.$ s. talpinus; under surface scarcely lighter, more smoky brown than in
M. s. talpinus. Hands, feet, and tail blackish, the anterior claws very large. Ears very short, quite hidden in the fur.

Skull stout and heavily built—compared with that of M. sclateri it is smaller, shorter in the muzzle, but proportionally broader, the interorbital region and brain-case as broad as in the larger species.

Teeth rather small throughout, the anterior incisors particularly delicate; relative proportions of the unicuspids as in M. sclateri, the minute posterior one about one-tenth the size of the second, which is half the size of the third, the latter being about three-fourths the size of the first.

Dimensions of the type (measured in the flesh):

Head and body 74 mm.; tail 42; hind foot 14; ear 7.

Skull: condylo-basal length 22·1; basal length 19·6; anterior breadth 7; interorbital breadth 5·5; greatest breadth across brain-case 12; length of upper tooth-series 10·8; height of i1 2.


The interest of this animal lies in the immense extension its discovery gives to the range of the genus *Myosorex*, which (since the species without the extra tooth in the lower jaw were separated as *Sylvisorex*) has been known only from South Africa, the Zoutpansberg district of the Transvaal being the most northern recorded locality. That the genus should turn up again at 10,000 ft. on Ruwenzori is a most interesting fact.

The velvety mole-like fur of *M. blarina* distinguishes it from all other forms except the decidedly larger *M. sclateri talpinus* of Zululand.

[Two specimens of this Shrew were caught near a stream in very swampy ground at 10,000 ft. They took a bait of worms.—R. B. W.]

23. *Crocidura nyansae* Neum.


[These Shrews were not trapped above 8500 ft., the limit of the forest-zone. They have a large oval-shaped gland, of a light pink colour, behind the shoulder on either side, which gives out an oil or grease with a powerful odour of musk and clove. The glands are long, narrow, and smaller in the female and have no odour. Native name "Mususu."—R. B. W.]

24. *Crocidura* sp.

♀. 152. Fort Beni, Semliki Valley. 3000 ft.

1 in spirits. Mpanga Forest, Fort Portal.

Allied to *C. nyansae* Neum.
25. Crocidura niobe Thos.


General proportions of *C. maurisca* Thos., with which it shares the unusual character of the almost entire absence of long bristles on the tail. Fur about 5 mm. long on the back. General colour dark blackish-grey ("blackish-slate"), with indistinct silvery mottling. Under surface scarcely lighter, the tips of the hairs brown. Hands and feet pale brown; fore claws rather smaller than hind. Tail long, slender, not incrassated, practically without longer bristles—a few present on the base only; uniformly blackish above and below.

Skull normal in build, without the peculiar delicacy of that of *C. maurisca*; the brain-case low, the muzzle stout and conical. Teeth as usual, the unicuspids broader than long, very unlike the narrow slender teeth of *C. maurisca*.

Dimensions of the type (measured in the flesh):

Head and body 68 mm.; tail 63; hind foot 13; ear 10.

Skull: greatest length (including incisors) 20; greatest breadth 9·1; length of upper tooth-row 8·2.

**Type.** Female. B.M. no. 6.7.1.32. Original number 618. Collected 10th January, 1906, by Mr. R. B. Woosnam. Three specimens.

This Shrew may be readily distinguished from *C. maurisca*, the only species with its proportions and tail-characters, by its more plumbeous colour and its broader skull and teeth.

[This Shrew was not met with on Ruwenzori above 7000 ft. It appeared to frequent the elephant-grass below the forest.—R. B. W.]


2 ♀ in spirits. Between Mawambi and Avakubi, E. Congo Forest.

Closely allied to *C. niobe*.

27. Crocidura fumosa montis Thos.


Size and other essential characters as in *C. fumosa* from Mount Kenya, but the fur longer (hairs of back 7·0–7·5 mm.) and the general colour a dark plumbeous grey, without the distinct brownish tone so marked in true *C. fumosa*. The ends of the hairs blackish, with a silvery subterminal ring.

Dimensions of the type (measured in the flesh):

Head and body 77 mm.; tail 61; hind foot 15; ear 11.

Skull: greatest length (including incisors) 22; greatest breadth 10.

**Type.** Female. B.M. no. 6.7.1.28. Original number 78. Collected 16th February, 1906, by Mr. R. E. Dent.
[Examples of this Shrew were caught between 7000 ft. and 12,500 ft. They inhabited both the swampy bottoms of the valleys and also the drier forested slopes. —R. B. W.]

28. Crocidura sp.
♀ 2. 100 miles W. of Entebbe. 3700 ft.
♀ 601. 50 miles W. of Entebbe. 4100 ft.
Allied to C. cuninghamei Thos.

29. Sylvisorex lunaris Thos.

A large slaty-grey species, with a long slender muzzle.
Size much larger than in S. morio, about equal to middle-sized species of Crocidura. Fur rich and velvety; hairs of back about 6 mm. in length. General colour dark slaty-grey, without variegation, but with a slight iridescence on the tips of the hairs. Under surface little lighter, the tips of the hairs pale brown. Upper surface of hands and feet brown, but the flesh along their inner halves is paler than the outer; fore and hind claws about equal in size. Tail much shorter than head and body, very finely haired, without longer bristles; brown above, rather paler below.
Skull markedly different from that of S. morio by its much larger size, slender build, and long muzzle.
Teeth delicate. Unicuspids narrow, the anterior about twice the area in cross-section of the other three, which are subequal. Lower incisors uniform in thickness, not tapering, their upper edges strongly serrated, with three well-marked notches.
Dimensions of the type (measured in the flesh):
Head and body 86 mm.; tail 54; hind foot 14.5; ear 10.
Skull: condylo-basal length 22; basal length 19.8; anterior breadth 6.4; greatest breadth across brain-case 10; length of upper tooth-series 10.
This distinct species may be readily distinguished from its W. African allies S. morio and S. preussi by its larger size.
[This Shrew was caught at 6000 ft. on Ruwenzori and also as high as 12,500 ft. It appeared to inhabit chiefly swampy ground.—R. B. W.]

30. Sylvisorex granti Thos.
♂ in spirits. Mubuku Valley, E. Ruwenzori. 10,000 ft.
A medium-sized species, with tail about equal to the head and body.
Size much less than in the other Ruwenzori species, *S. lunaris*; about the same as in the Nyasani *S. sorella*. Fur very long; hairs of back over 7 mm. in length. General colour dark slaty-grey above, little paler below, but as the only specimen is in spirits, the tones cannot be described with accuracy. Hands and feet pale brown. the digits rather lighter. Tail almost as long as the head and body, finely haired, brown above, rather paler below.

Skull short, broad, and rounded, not unlike that of *S. sorella*, but with a broader flatter brain-case and an even shorter muzzle. Teeth practically as in *S. sorella*, the second and third upper unicuspids rather more nearly subequal.

Dimensions of the type:

- Head and body 55 mm.; tail 54; hind foot 13·1.
- Skull: condylo-basal length 17; breadth across palate 5·3; breadth across brain-case 8·9; front of z1 to back of m1 6·4; length of lower tooth-row 7.

Type. Adult male in spirits. B.M. no. 6.12.4.85. Collected 9th April, 1906, by Mr. R. E. Dent.

This species is of the intermediate size found in *S. sorella*, being markedly smaller than *S. lunaris* and *S. morio*, and equally larger than the pigmy *S. johnstoni*. From *S. sorella* it is at once distinguished by its far shorter tail.

Named in honour of Mr. W. R. Ogilvie-Grant, by whom the Ruwenzori Expedition was organised.

[This little Shrew was caught in some swampy ground at the foot of a steep cliff at 10,000 ft. It was the only example obtained.—R. B. W.]

Family **Chrysocloridæ.**

31. **Chrysocloris stuhlmanni** Matsch.


[Golden Moles were not at all common on Ruwenzori. They were found as high as 10,000 ft., at which altitude one was trapped in some very swampy ground. The natives distinguished it from a Mouse and called it "Mbumahume."—R. B. W.]

Family **Felidæ.**

32. **Felis chrysotrich x cottoni** Lyd.

♂. Avakubi, E. Congo Forest. 3000 ft.

[A flat skin obtained from a native.—R. B. W.]
Family V I V E R R I D E.

33. Genetta stuhlmanni Matsch.

♀. 136. Mokia, S.E. Ruwenzori. 3400 ft.

Prof. Matschie has described (Verhandl. V. Internat. Zool. Congresses zu Berlin, 1901, p. 1142) three species of Genet from E. Africa under the names G. stuhlmanni, G. suahelica, and G. erlangeri. We have not been able to inspect the types of these species, but in the Natural History Museum are 9 or 10 specimens from N. Nyasa, Kilimanjaro, Kikuyu, and Entebbe, which have been identified by Prof. Matschie as being either G. stuhlmanni or G. suahelica. Adding the present specimens to these, we have a series of over a dozen, the extreme individuals of which are easily separable; but these extremes are linked up by the intervening individuals in such a way that after most careful examination both of skins and skulls we have been obliged to acknowledge that we cannot find any constant character by which these forms may be separated. In the present series the low-level specimen shows scarcely any trace of black in its coloration, while among the high-level individuals the palest shows a rustiness in the centres of the spots, while the darkest has black spots on a grey ground. Nevertheless the skulls, apart from the difference of sex, are indistinguishable from one another. The first name employed by Prof. Matschie in this group of Genets is G. stuhlmanni, which we have accordingly adopted for these Ruwenzori specimens.

Special attention should be drawn in this, and no doubt in other Genets, to the marked sexual difference in the size of the carnassial teeth. Here, for example, the outer length of the upper carnassial is 8-6 and 8-3 mm. in the two males and 7-1 and 7-3 mm. in the two females. Naturalists are accustomed to expect a sexual difference in the size of the canines, but little if any notice has been taken of such a sexual difference in the carnassial teeth.

34. Genetta victorii Thos.

♂. Avakubi, E. Congo Forest.

This is the first specimen of this very handsome and well-marked species which the Museum has received since it was described from a flat skin by Thomas. It is most unfortunate, therefore, that this specimen, like the type, has no skull.

[A flat skin obtained from a native in the Congo Forest. The natives say the species is not uncommon.—R. B. W.]

35. Genetta bettoni Thos.


The type locality of this species was in the Mau District of Uganda. The present series agree with the type in all essential characters. The body-measurements recorded
by Thomas in his original description were based on dry skins. The following (in mm.), taken from fresh specimens and recorded by the collector, are therefore of interest:

<table>
<thead>
<tr>
<th></th>
<th>G. bettoni</th>
<th>G. servalina</th>
</tr>
</thead>
<tbody>
<tr>
<td>652, ♀</td>
<td>681, ♀</td>
<td>687, ♀</td>
</tr>
<tr>
<td>Head and body</td>
<td>410</td>
<td>425</td>
</tr>
<tr>
<td>Tail</td>
<td>375</td>
<td>365</td>
</tr>
<tr>
<td>Hind foot</td>
<td>78</td>
<td>74</td>
</tr>
<tr>
<td>Ear</td>
<td>41</td>
<td>38</td>
</tr>
</tbody>
</table>

We have added for comparison the dimensions of a specimen of *G. servalina* from Gaboon collected by Dr. Ansorge.

Thomas has noted the difference between the two species in the size and colour of the feet, and we would further call attention to the comparatively short tail, with 9–10 pale rings, of *G. bettoni*, which contrasts strongly with the long 12–13-ringed tail of *G. servalina*.

With reference to the dental differences between the sexes noted above in *G. stuhlmanni*, we may record that in three females the length of the upper carnassial on its outer side is 6·9, 7, and 7·3 mm., while in the male it is 8·1 mm.

[This Genet was not uncommon on Ruwenzori up to 8500 ft., the limit of the forest-zone. It was met with also in the acacia country on the plains around the south end. Native name "Mwaga."—R. B. W.]

36. Pollana richardsoni ochracea Thos. & Wr.
Near Yambuya, Aruwimi R., Congo Forest.
[A flat skin obtained from a native who was wearing it on a belt and was going to make a pouch of it for holding pipe and tobacco. We noticed that it was a new skin to us, and exchanged it for a few pinches of salt.—R. B. W.]

37. Nandinia binotata Gray.
♂ 130. Mubu Valley, E. Ruwenzori. 5000 ft.
[A single specimen caught by a native at the foot of the mountains. In the Congo Forest near Avakubi a very young kitten of this species was obtained not more than a few days old. No milk was to be had, but it thrived well on a diet of ripe banana mashed up with plasmon powder. It is now a fine healthy specimen, and has survived an English winter in the ordinary temperature of a house. Native name "Lusaemba."—R. B. W.]

38. Mungos paludinosus G. Cuv.
In spirits. 136. Basoko, Upper Congo R. 1500 ft.
[This young Mongoose was given to us by a French missionary, who said it was
seven days old. As no milk was obtainable he had been feeding it upon “palm-oil”! which had so upset its digestive system that we failed to keep it alive. Natives say this animal is not uncommon and frequents the reed-beds on the river-banks.—R. B. W.]

It is much to be regretted that no adult specimen was obtained from this interesting locality.

39. Mungos sanguineus proteus Thos. (Plate XXI.)


A very variable form, usually strongly affected by melanism.

In the single wholly non-melanistic specimen the colour throughout, of body, limbs, and tail (apart from the black terminal pencil), is grizzled tawny ochraceous, darkened on the posterior back; the upper surface of the hands and feet terminally rich rufous. From this there is a complete series of intergradations to one in which the body is blackish-bistre, the tail even darker, practically black throughout, and the feet deep glossy black. The type is an intermediate specimen, its general colour mummy-brown, but its feet and tail wholly blackish.

Dimensions of the type (measured in the flesh):

Head and body 306 mm.; tail 260; hind foot 59; ear 25.

Skull: condylo-basal length 61.


This remarkably variable Mongoose forms a parallel to the Alpine Squirrels, which are commonly affected by melanism in a similar way. Possibly something of the same sort occurs in Abyssinia, where the dark “mutigella” has been considered to be the same species as the true M. gracilis. Elsewhere in Africa forms of the M. gracilis group are very constant in colour. We have given figures (Pl. XXI.) of the most extreme forms.

No members of this group, light or dark, have been described from the Lake region of Central Africa.

[Not uncommon on Ruwenzori, but was not seen above 7500 ft. It has the reputation among the natives of being a great chicken-thief. The native name is “Kissere.”—R. B. W.]

40. Crossarchus fasciatus macrurus Thos.

♂. 133, 671. Mokia, S.E. Ruwenzori. 3400 ft.

Size larger than in true C. fasciatus and tail markedly longer.

Colour quite as in Zululand specimens of C. fasciatus, the general tone similarly
deep and rich, and the shoulders equally covered with shaggy hair and suffused with fulvous (not clear grey). Hands and feet nearly wholly deep glossy black.

Dimensions of the type (measured in the flesh):—

Head and body 378 mm.; tail 250; hind foot 70; ear 26.

Skull: condylo-basal length 71; basal length 67; zygomatic breadth 38.5; median length of nasals 12.5; palatal length 38; greatest diameter of p 6.

Type. Male, adult but not old. B.M. no. 6.12.4.29. Original number 133. Collected 30th April, 1906, by Mr. R. E. Dent. A second specimen (No. 671) was collected on the same day by Mr. R. B. Woosnam.

Two examples of true *C. fasciatus*, collected in Zululand by Mr. C. H. B. Grant, measure—head and body 333 and 335 mm., tails 207 and 209 mm. respectively. No. 671 of *macrurus* measures—head and body 380, tail 270 mm. There is evidently, therefore, so material a difference both in size and in length of tail between the Ruwenzori form and the South-African that subspecific distinction is necessary, in spite of the close resemblance in other characters.

[Only met with on the plains among the acacia trees around the south end of Ruwenzori. They live in small colonies or family-parties in burrows in the sandy soil. They are partially diurnal. They were rare near Ruwenzori, but a little further east in the district of Ankole they are said to be quite numerous. Native name "Mugere."—R. B. W.]

Family Sciuridae.

41. Sciurus Stangeri Centricola Thos.

♂. 687. Mpanga Forest, Fort Portal. 5000 ft.

[A few of these Squirrels were seen in the Mpanga Forest, but they were not at all common.—R. B. W.]

42. Sciurus Ruwenzorii Schwann. (Plate XXII.)


As Thomas has pointed out *, this Squirrel is not related to *S. rufobrachiatu*, but is an entirely different species, with two upper premolars, *S. rufobrachiatu* having only one.

[Plentiful on Ruwenzori from 6500 ft. up to 8500 ft., the boundaries of the forestzone. They have a loud chattering call.—R. B. W.]

43. Sciurus rufobrachiatu Nyansaa Neum.

♀. 686. Mpanga Forest, Fort Portal. 5000 ft.

44. Sciurus rufobrachiatus semlikii Thos.

♂. 153. Fort Beni, Semliki Valley. 3000 ft.

Most closely allied to S. r. nyansæ Neum., with which it agrees in the extent of the rufous on the limbs, but distinguished by the speckling of the back being very much finer and by having the general colour greyer. In S. r. nyansæ there is a strong suffusion of buffy or fulvous in the dorsal colour, the rings of the longer hairs and the ends of the wool-hairs being markedly tinged with buffy; in S. r. semlikii, on the other hand, the former are almost white and the latter are dull greyish-buff. As a result the general tone of S. r. semlikii is a nearly pure dark grey, between grey no. 6 and "smoke-grey" of Ridgway, the middle line of the back only with slight yellowish suffusion.

Dimensions of the type (measured in the flesh):—
Head and body 225 mm.; tail 251; hind foot 49; ear 16.

Hab. Fort Beni, Semliki Valley. 3000 ft.

Type. Adult male. B.M. no. 6.12.4.64. Original number 153. Collected 22nd July, 1906, by Mr. R. E. Dent.

This handsome Squirrel is no doubt nearly allied to S. r. nyansæ, but in the very fine speckling of the body and greyer colour shows a relationship to the form found in Gaboon, to which the name of S. r. aubryi M.-Edw. is applicable. The latter, however, has not the richly coloured rufous feet characteristic of both the Central African subspecies.

[A few seen in the Congo Forest.—R. B. W.]

45. Funisciurus boehmi emini Stuhl.

♂. 309. Fort Beni, Semliki Valley. 3000 ft.
♂. 685. Mpanga Forest, Fort Portal. 5000 ft.

[Met with throughout the journey, but nowhere in any numbers. They were not seen on Ruwenzori above 7500 ft.—R. B. W.]

46. Funisciurus antonii Thos. & Wr. (Plate XXIII.)


♀. 351. Ponthierville, above Stanley Falls, Upper Congo (Douglas Carruthers). A beautiful little Squirrel discovered by Mr. Carruthers after leaving Lake Tanganyika on his return journey.

47. Funisciurus carruthersii Thos. (Plate XXII.)


A handsome yellowish-green species, with a bluish-grey belly; something like a gigantic example of F. poensis.
Size about as in *F. pyrrhopus*. Fur soft and rich; hairs of back about 13–15 mm. in length. General colour above bright yellowish-olivaceous-green, the hairs blackish with rich yellow subterminal bands. Along the sides of the back a suggestion of yellow lateral lines, in the position of those of the *F. pyrrhopus* group, can be made out, but these are very faint and scarcely to be distinguished from the yellow of the flanks. Under surface and inner sides of limbs bluish-grey, the hairs dark slaty with whitish tips. Head like back; eyes rimmed above and below with dull whitish or orange-whitish; ears short, rounded, their inner surface greenish-yellow like the flanks, their outer surface and a small post-auricular patch dull yellowish-white. Upper surface of hands and feet grizzled yellowish. Tail coloured like the body, the hairs black at base and on a broad subterminal ring, the middle ring and the ends greenish-yellow; a pencil of long hairs at the tip of the tail wholly black.

Skull of about the size and general shape of that of *F. erythrogenys* and other members of the *F. pyrrhopus* group. Nasals square, parallel-sided. Postorbital processes further forward on the skull than in *F. erythrogenys*. Teeth apparently of the same general type as in *F. erythrogenys*, but *m*³ considerably larger.

Dimensions of the type (measured in the flesh):—
Head and body 198 mm.; tail 192; hind foot 47·5; ear 20.
Skull: greatest length 49; basilar length 33; greatest breadth 28; nasals 13×7·5; interorbital breadth 12·2; palatilar length 20·2; length of upper tooth-series exclusive of *p*³ 8·8.

Another specimen (a male) has head and body 204 mm.; tail 205.

*Type*. Female. B.M. no. 6.7.1.53. Original number 262. Collected 7th February, 1906, by Mr. Douglas Carruthers.

The affinities of this handsome and distinct species are by no means clear. Its size and the indistinct lateral dorsal lines suggest a relationship to the non-rufous members of the *F. pyrrhopus* group, although it has not their characteristically marked tail, and the bluish-grey belly is unlike anything found among them.

[This was a rare Squirrel, and the few specimens obtained were all killed in a particular part of the forest close to a large native clearing.—R. B. W.]

Family G L I R I D E.

48. **Graphiurus** soleatus, sp. n.


A *Graphiurus* of the *murinus-microtis* group, with small bullæ and dark-coloured white-toed feet.

Size as in *G. microtis*. Fur (6 mm. long on back) thick and close. General colour above probably a brownish-grey normally, but these specimens are in their faded brown
winter coat; below smoke-grey; the line of demarcation much less sharply marked than in *G. microtis*. Hands and feet dark to the base of the toes, which are white.

Skull flatter, brain-case broader, and bulle markedly smaller than in *G. microtis*.

Dimensions of the type:—

Head and body 79 mm.; tail circ. 90 (broken in the type); hind foot 17.5; ear 16.

Skull: greatest length 27; basilar length 21; greatest breadth 15; brain-case breadth 12.3; interorbital breadth 4.5; length of nasals 11; diastema 6.4; antero-posterior length of bullae in the plane of the palate 7.6; upper molar series 3.4.


This little Dormouse is easily separable from *G. microtis*, its nearest neighbour, by its bulle and the colour of its feet. True’s *G. parvus*, from the Tana River, belongs apparently to the group of small forms with white bellies and feet represented by *G. smithii* Thos.

[Rare on Ruwenzori. A few specimens were obtained in the dry wooded ravines at the east end of the range. The natives say that this mouse frequents their grain-stores more than any other species, and also the thatched roofs of their huts, but we did not find this to be the case.—R. B. W.]

49. **Graphiurus microtis** Noack.

♀ 681 and ♀ in spirits. Mokia, S.E. Ruwenzori. 3400 ft.

We have not seen the type of Noack’s *G. microtis* from the south end of Lake Tanganyika, but the British Museum possesses specimens from the Nyika plateau which satisfy, so far as we are in a position to judge, all the requirements of Noack’s description. The present specimens do not differ in any material degree from these Nyika specimens of *G. microtis*.

The large size of the bulle as compared with those of *G. soleatus* is most marked, their antero-posterior length, corresponding to that given above for *G. soleatus*, is no less than 9 mm. Although the highest part of the brain-case in *G. microtis* is well in front of a line passing vertically through the auditory meatus, yet the total depth of the skull on this line is almost a millimetre greater than in *G. soleatus* (*i.e.* 10.6 to 9.7 mm.).

Family *Muridae*.

50. **Tatera ruwenzorii**, sp. n.

♀ 302, 308, 678. Mokia, S.E. Ruwenzori. 3400 ft.

A *Tatera* about the size of and outwardly resembling *T. liedon*, but with a proportionally longer tail and with shorter anterior and longer posterior palatal foramina.
Fur fairly long (18–22 mm. on back) and soft. General ground-colour above the usual fawn, pure on the flanks, much mixed with black on the back; individual hairs dark slate-colour, with a subterminal buff ring (2 mm.) and a black tip (2 mm.) on the back and a buff tip (4 mm.) on the flanks; below pure white, the hairs white to their bases. Hands white; feet buffy, with white toes. Tail very dark brown (almost black) above, fawn below.

Skull about the size of that of T. liodon, interorbital region and brain-case markedly broader, anterior palatal foramina shorter, posterior longer than in that species.

Dimensions of type taken in the flesh:—
Head and body 160 mm.; tail 166; hind foot 34; ear 22.

Skull: greatest length 42·5; basilar length 34; zygomatic breadth 22·3; interorbital breadth 7·5; brain-case breadth 17·2; anterior palatal foramina 7·5 (8·3 in liodon); posterior palatal foramina 3 (a mere point in T. liodon); diastema 11·9; upper molar series 7.


The long posterior palatal foramina in this species separate it sharply from T. liodon and T. valida, the two species hitherto recognised as occupying the equatorial belt across Africa.

[These Rats were very numerous on the plains around the south end of Ruwenzori, but were almost impossible to catch. We failed to locate them in any holes, and they appeared to feed only upon young grass-stems, of which they cut up great quantities into short lengths of from 2 to 4 inches long, but they refused all baits. They are nocturnal.—R. B. W.]

51. OTOMYS DARTMOUTHI Thos.

♂. 81, 82, 254, 653. ♀. 642, 655, 656. Mubuku Valley, E. Ruwenzori. 12,500 ft. (“seen up to 13,000 ft.”).

Lower incisors double-grooved. M3 with only six laminæ.

Size rather larger than in O. jacksoni. Fur very fine, long and woolly; ordinary hairs of back about 17 mm. in length. General colour above finely grizzled “mummy-brown,” not so coarsely marbled as in O. jacksoni. Under surface drab-brown, the ends of the hairs pale clay-colour. Head and ears of the prevailing body-colour. Upper surface of hands and feet pale buffy. Tail black along its upper surface, dull buffy on the sides and below.

Skull larger than in O. jacksoni, its profile convex above the orbits.

Upper incisors with a deep median and a fine internal groove. Lower incisors with two well-marked subequal grooves, as in O. jacksoni and typus. Laminar formula of molars 3–2–6 4–2–2.
Dimensions of the type (measured in the flesh):—
Head and body 150 mm.; tail 93; hind foot 26.5; ear 25.
Skull: greatest length 37.5; basilar length 30.3; zygomatic breadth 19.5; nasals 16.5×6.7; interorbital breadth 4.2; palatilar length 17; palatal foramina 7; length of upper molar series (grinding-surface) 7.3.


This animal is related to the corresponding mountain-form from Mt. Elgon, Otomys jacksoni, from 18,200 ft., but differs by its larger size, more uniform coloration, and the possession of only six laminae on the last upper molar.

[It is impossible to say which of the two Swamp-Rats, O. dartmouthi or Dasymys montanus, is the most numerous, as they frequent the same ground and have exactly similar habits (see under the latter species, p. 514).—R. B. W.]

52. Otomys dentic Thos.

♀. 14, 56, 645. 6 in spirits. Mubuku Valley, E. Ruwenzori. 6000–10,000 ft.

Incisive grooves as in O. irratus, but m₃ with five laminae only. Colour very dark.

Size rather smaller than in O. irratus. Fur long and fine; ordinary hairs of back about 20 mm. in length. General colour dark blackish-brown (darker than "bistre") with a coppery tinge, the rump almost black, the light rings on the hairs dark tawny. Under surface and inner aspect of limbs slaty black, a few only of the belly-hairs tipped with dull buffy. Upper surface of hands and feet uniformly brownish-black. Tail black throughout, above and below.

Skull smaller than that of O. irratus, more flattened above, its profile not so convex above the orbits, the height from tooth-row to supraorbital ridge markedly less.

Incisive grooves as in O. irratus. Molar laminae 3–2–5

Dimensions of the type (measured in the flesh):—
Head and body 157 mm.; tail 89; hind foot 27; ear 21.

Skull: greatest length 36.6; basilar length 30.3; zygomatic breadth 18.6; nasals 14.7×6.8; interorbital breadth 4.5; height from alveolus of m₃ to supraorbital ridge 10.8; palatilar length 17; palatal foramina 7.2; upper molar series (grinding-surface) 7.


This striking Swamp-Rat is readily distinguishable by its dark coppery colour, flat skull, and the presence of only five laminae on the last upper molar.

[Rather an uncommon species, obtained at 6000 and 10,000 ft. They inhabit the swampy ground and banks of streams.—R. B. W.]
53. *Deomys ferrugineus* Thos.

1 in spirits. Between Mawambi and Avakubi, E. Congo Forest.

The genus *Deomys* has hitherto been known only from the West Coast, whence Mr. G. L. Bates has sent a number of specimens to the British Museum.

54. *Dendromus insignis* Thos.

♀ skinned from spirits. Mubuku Valley, E. Ruwenzori. 10,000 ft.

55. *Mus rattus* L.


♂ 155, 156. ♀ 157. Fort Beni, Semiliki Valley. 3000 ft.

[Not obtained on Ruwenzori. A few were found on the plains around the south end of the range and again at Fort Beni on the edge of the Congo Forest.—R. B. W.]


♂ 140, 290, 676. ♀ 291. Mokia, S.E. Ruwenzori. 3400 ft.

♀ in spirits. East Ruwenzori.

[Extremely common everywhere, especially near native huts and cultivations. They were not caught on Ruwenzori above 7000 ft.—R. B. W.]

57. *Mus sp.* (multimammate).

2♀ in spirits. Between Mawambi and Avakubi, E. Congo Forest.

58. *Mus jacksoni montis*, subsp. n.

♂ 4, 12, 18, 21, 24, 609, 620. ♀ 3, 13, 23, 25, 30, 110. Mubuku Valley, E. Ruwenzori. 6000 ft.


A long-tailed Rat representing *M. jacksoni* De Wint., but rather larger and with larger stouter teeth.

Fur short (10–12 mm. long on back) and soft. General colour above “bistre,” more or less tinged with “broccoli-brown,” below greyish-white; individual hairs blackish-slate, with brown tips on the hock and pure white on the lower surface. Hands and feet pinkish-drab. Tail uniform in colour, almost naked; rings about 15 in 10 mm.

Skull of the usual type. Teeth broader and longer than in *M. jacksoni*, palatal foramina long.

Dimensions of type (measured in the flesh):—

Head and body 111 mm.; tail 156; hind foot 25·5; ear 19.
Skull: greatest length 33; basilar length 26·5; zygomatic breadth 16; brain-case breadth 13·5; diastema 9; palatal foramina 7·6; upper molar series, length 5·3, breadth 1·7.


A series of 13 specimens, including males and females, examined. The type of *M. jacksoni* is unfortunately a quite young animal, but, so far as we can judge, it is a somewhat smaller animal even when full-grown, otherwise externally it closely resembles the present species. On comparing the skulls, however, the size of the teeth serves to separate them at once, the measurements in *M. jacksoni* being—length of upper molar series 4·6, breadth 1·4.

[Extremely common on Ruwenzori everywhere up to 8000 ft. They were most numerous around the native huts.—R. B. W.]


A small long-tailed species allied to *M. allenii*. Mammæ 2—2=8.

Size about as in *M. allenii* and *M. carillus*. Fur soft and rather woolly; hairs of back about 9–10 mm. in length. General colour not unlike that of *M. carillus*, soft buffy-fawn, varying a good deal in the richness of the tone. Sides clearer and more buffy. Under surface well defined whitish, sometimes tinged with buffy. Head greyer than back; lower part of sides of muzzle white; area around eyes black. Ears large, naked, dark brown throughout. Upper surface of hands and feet thinly haired, dull whitish. Tail much longer than head and body, fairly well haired terminally, greyish-brown throughout.

Skull of the same delicate shape as in *M. allenii* and *M. carillus*, and the zygomatic plate similarly little projected forward. Supraorbital edges sharply square, but not beaded. Palatal foramina much longer than in the two western species.

Dimensions of the type (measured in the skin):—

Head and body 96 mm.; tail 154; hind foot 21; ear 21.

Skull: greatest length 27; basilar length 22·5; greatest breadth 13·5; nasals 9·5; interorbital breadth 4·1; breadth of brain-case 12·2; palatilar length 12; diastema 8; palatal foramina 6·4×2·3; length of upper molar series 4.


This pretty Mouse is no doubt allied to *Mus allenii*, with which it shares the general
proportions, shape of skull, and number of mammae; but it differs by its softer, more buffy fur and longer palatine foramina. In *Mus carillus*, otherwise allied, there are only 1—2=6 mammae.

[This was an extremely common Mouse on Ruwenzori and was obtained as high as 12,500 ft. At this altitude it was found only in the dry caves and rock-shelters.—R. B. W.]

60. **Mus univittatus** Peters.

♂ 182. ♀ 183. North Ruwenzori.
♀ 185. Eturi Forest. 2500 ft.
2♂, 2♀ in spirits. Between Mawambi and Avakubi, E. Congo Forest.

[These Mice were met with only in forest-country and did not appear to be uncommon.—R. B. W.]

61. **Mus univittatus lunaris** Thos.

♀ 217, 240, Mubuku Valley, E. Ruwenzori. 6000—8000 ft.

General characters of the typical western *M. univittatus*, but size smaller and colour more olivaceous, not turning rufous on the rump, which is blackish-olivaceous. Belly-hairs greyish tipped with buffy; a line down outer edge of thighs also buffy. Dorsal streak not sharply defined and not extending on to neck and head. Upper surface of hands blackish-brown, of feet rufous-brown. Tail practically naked, black above, rather lighter below.

Skull similar to that of true *M. univittatus*, but smaller and lighter throughout. Molars decidedly narrower.

Dimensions of the type (measured in flesh):

- Head and body 108 mm.; tail 115; hind foot 25; ear 17.
- Skull: greatest length 32; basilar length 24; greatest breadth 15.3; nasals 13; interorbital breadth 5.2; breadth of brain-case 14; palatilar length 13.2; palatal foramina 6; length of upper molar series 5.1.


[This was a rare species on Ruwenzori and only two examples were obtained during many months' continuous trapping; these were caught in the forest-zone.—R. B. W.]

62. **Mus alleni** Waterh.

♀ in spirits (skinned out). Between Mawambi and Avakubi, E. Congo Forest.
♀ in spirits. Between Mawambi and Avakubi, E. Congo Forest.

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63. LEGGADA BUFO Thos. (Plate XXIII.)


1 in spirits. Butagu Valley, W. Ruwenzori. 7000 ft.

A large dark species with a rich buffy belly.

Size rather less than in Mus musculus. Fur close and crisp, about 5·5 mm. in length on the back, profusely mixed with fine spines. General colour above dark coppery brown (nearest to "bistre"), more blackish on the rump; the light rings on the hairs dark buffy. Under surface strongly contrasted rich buffy-ochraceous, the hidden bases of the hairs slaty-grey. Head rather darker than back. Ears naked, uniformly blackish. Outer side of limbs brown like sides, inner sides buffy like belly; upper surface of hands and feet brown, with a tinge of buffy. Tail finely scaled (20 rings to the centimetre), practically naked, blackish throughout, or rather lighter below proximally.

Skull stoutly built, with broad, squarely edged but not ridged, interorbital region. Palatal foramina long, extending nearly to the level of the middle of m1. First upper molar with its anterior lobe less developed than in the smaller forms.

Dimensions of the type (measured in the flesh):—

Head and body 70 mm.; tail 68; hind foot 16; ear 13.

Skull: greatest length 22; basilar length 17; greatest breadth 11; interorbital breadth 4; palatilar length 9·6; palatal foramina 5·1; length of upper molar series 3·4.


This species is related to L. musculoides Temm., but may be readily recognized by its rich buffy under surface.

[A fairly common Mouse on Ruwenzori, but not obtained much above the lower limit of the forest-zone at 6500 ft.—R. B. W.]

64. LEGGADA FORS, sp. n.

♂ 159. Butagu Valley, W. Ruwenzori. 7000 ft.

♂ 181. North Ruwenzori. 7500 ft.

A Leggada about the size of L. setulosa Peters, with slaty bases to the hairs of the underside.

Size about as in L. setulosa. Fur longer than in that species (9–10 mm. on the back against 7·8 in L. setulosa). Colour above exactly as in L. setulosa, i.e. hairs dark slate with buff tips mixed with a certain proportion of all black ones.
Below bases of hairs pale slate, tips white, giving a general grey appearance contrasting strongly with the pure white belly of *L. setulosa*. Hands and feet dark (white in *L. setulosa*).

Skull and teeth resembling those of *L. setulosa*, but larger.

Dimensions of type:

- Head and body 66 mm.; tail 55; hind foot 15; ear 12.
- Skull: greatest length 21; basilar length 18·2; zygomatic breadth 10·5; brain-case breadth 9·9; diastema 5·4; palatal foramina 5; upper molar series (alveolar length) 4.

*Type.* Adult male. B.M. no. 7.4.6.23. Original number 159. Collected 1st August, 1906, by Mr. R. E. Dent.

In the British Museum there is no example from Guinca of the genus *Leggada* which efficiently represents Temminck's *L. musculoides*. A series collected by Mr. Bates in Cameroon are topotypes of Peters' *Mus setulosus*, and, judging from the description, they do not differ materially from *L. musculoides*. From this western form the present species may be separated at once by its greyish belly and rather larger size. From *L. bufó*, which resembles it in having slaty bases to the hairs of the underside, it is at once distinguishable by its smaller size and the absence of buffy colouring on the belly.

65. **Leggada grata**, sp. n.

♂ 63, 75, 216, 222. ♀ 5, 35. Mubuku Valley, E. Ruwenzori. 6000 ft.
♀ 313 (1 in spirits). Mufumbiro volcanoes. 5000 ft. (*Douglas Carruthers.*)

A small *Leggada* intermediate between *L. tenella* and *L. musculoides*.

Fur fine and short (7–8 mm. on the back). General colour above "bistre," below white; individual hairs of the back at their bases dark brownish slate, continued to the tip in some, while others are tipped with buffy; the basal colour paling gradually towards the flanks and buffy-tipped hairs becoming more numerous until at the junction with the white belly a bright buffy line is formed; hairs of belly with dull white bases which seem almost pale slate in some lights. A bright buffy spot on the cheek of the same colour as the flank-stripe. Hands and feet buffy white.

Skull small, but broad and deep. The characteristic ridge on the anterior molar clearly marked.

Dimensions of the type (measured in the flesh):

- Head and body 58 mm.; tail 55; hind foot 14; ear 9·5.
- Skull: greatest length 18; basilar length 14; zygomatic breadth 9·6; brain-case breadth 8·7; nasals 7·5; diastema 4·8; upper molar series 3·3.
Type. Old female. B.M. no. 6.7.1.55. Original number 35. Collected 14th January, 1906, by Mr. R. E. Dent.

Sir A. Smith based his "minuatoideis" on specimens from "near Cape Town." The skull of one of his typical specimens, as well as those of more recently received examples from the same region, shows that L. minuatoideis is a larger form, so that L. minimus Peters being preoccupied, there is no name available for the small, or, more properly (as L. tenella is still smaller), for the medium form represented by the present species.

66. Thamnomyis venustus Thos.

2. 615. Mubuku Valley, E. Ruwenzori. 8000 ft.

Allied to T. rutilans, Peters, but larger and with much longer fur.

Fur of back about 15 mm. in length. General colour above dark rufous (in spirits), a brighter line along the sides; belly white, with a faint buffy suffusion, the basal halves of the hairs slaty. Ears dull greyish. Upper surface of feet buff, becoming whiter on the toes. Tail long, pencilled terminally, uniformly dark brown, as in T. rutilans. Mammæ 0—2 = 4.

Skull decidedly larger than in T. rutilans; muzzle long, parallel-sided; interorbital region narrow, the edges not so widely expanded as in T. rutilans; palatine foramina long, not expanded mesially, reaching back to the level of the front of m; bullæ rather larger than in T. rutilans. Molars large, heavy, the series markedly larger than in T. rutilans.

Dimensions of the type (measured on the spirit-specimen):—

Head and body 125 mm.; tail 181; hind foot 25; ear 18.

Skull: greatest length 34·5; basilar length 28; greatest breadth 17·2; nasals 12·5; interorbital breadth 4·9; breadth of brain-case 14·3; palatilar length 15; diastema 9·4; palatal foramina 8·2; length of upper molar series 6·1.

Type. Adult female. B.M. no. 6.12.4.106. Original number 615. Collected by Mr. R. B. Woosnam.

Unfortunately only one specimen of this fine species was obtained by the Expedition, and that was preserved in spirits. However, its longer skull, larger teeth, longer fur, and the slaty tint of its belly will readily distinguish it from T. rutilans, to which alone it is nearly allied.

[A single specimen of this species was obtained in the upper part of the forest-zone. It was shot as it left its hole among the roots of a tree and had one of its young hanging to a teal. This was the only example met with, although many traps were put down in the vicinity.—R. B. W.]

♂. 234; 104, 668. ♀. 19, 20, 37, 72, 207. Mubuku Valley, E. Ruwenzori.

6000 ft.

♀ in spirits.

A member of the *T. dolichurus* group, but with the mammae only 0—2=4.

Quite similar to the more rufous forms of *T. dolichurus*, *e.g.* those from Nyasa and East Africa. General colour tawny, greyer on the head, richer on the rump, sides paler, a well-marked buffy or ochraceous line edging the belly, which is white, sometimes tinged with buffy, the hairs not slaty at the base. Ears with proectote tawny brown or blackish; meteotote rich buffy; a pale buffy spot behind their posterior base. Upper surface of hands and feet pale buffy. Tail long, pencilled, uniformly dark brown. Mammae 0—2=4.

Skull lightly built. Palatal foramina reaching just to the level of the front of *m1*. Bulbæ small. Molars light and delicate.

Dimensions of the type (measured in the flesh):—

Head and body 118 mm.; tail 185; hind foot 24·5; ear 19.

Skull: greatest length 31·3; basilar length 24·5; zygomatic breadth 15·3; nasals 11·5; interorbital breadth 4·7; breadth of brain-case 13·6; palatal foramina 7·2; length of upper molar series 4·3.

Type. Adult female. B.M. no. 6.7.1.136. Original number 207. Collected 30th December, 1905, by Mr. Douglas Carruthers.

The presence of only four mammae in this mouse is a very curious fact, as there are six in all the other members of the *T. dolichurus* group, even in those from comparatively adjacent localities. Specimens from Shoa (*Zaphiro*), Mt. Elgon (*Jackson*), Nyasa (*Johnston*), Angola (*Ansorge*), and South Africa all possess the larger number.

[A few of these Mice were trapped in the grass-country below the forest. A nest built in the grass some way off the ground was thought to belong to this species, but we failed to obtain the actual owner.—R. B. W.]

68. *Ænomys bacchante editus*, subsp. n.


6000 ft.


An *Ænomys* of the size and general colouring of *Æ. bacchante unyori*.

Fur soft and fairly long (17 mm. on the back). General colour above near "clay-colour," individual hairs dark slate-colour, tipped on the flanks with cream-buff, and on the back with bright "ochraceous," the coloured tips longer on the rump;
a considerable proportion of longer hairs (25–30 mm.) black with buff tips. Hands and feet ochraceous buff; tail sparsely clothed with short adpressed hairs; dark above, pale below.

Skull as in \( E. b. unyori \), but interorbital area widening evenly backwards, not parallel-sided; anterior margin of anteorbital plate concave as in \( E. bacchante \).

Dimensions of the type (measured in the flesh):—

Head and body 150 mm.; tail 180; hind foot 30; ear 20.

Skull: greatest length 38; basilar length 31; zygomatic breadth 17·5; diastema 10·5; upper molar series 6·9.

Type. Adult male. B.M. no. 6.7.1.139. Original number 70. Collected 2nd February, 1906, by Mr. R. E. Dent.

[Numerous on Ruwenzori up to the lower limit of the forest-zone at 6500 ft. They were also plentiful among the native clearings in the Congo Forest, feeding on the rice- and millet-crops, where the natives catch and eat them.—R. B. W.]

Hitherto all forms in the genus \( E \text{nomys} \) (except the two small species \( E. dembeensis \) and \( E. harringtoni \)) from N.E. Africa have been classed as subspecies of \( E. hypoxanthus \). After examining the considerable material now available we are of opinion that, at least, the West Coast forms (\( E. hypoxanthus \) and \( E. anchietae \)) with their larger (especially broader) teeth should be separated from the smaller-toothed Eastern ones (\( E. bacchante, E. unyori \), and \( E. editus \)).

The following is a comparative table of the principal measurements (in mm.) of the five forms mentioned:—

\[
\begin{array}{cccccc}
\text{\( E. hypoxanthus \)} & \text{\( E. h. anchietae \)} & \text{\( E. bacchante \)} & \text{\( E. b. unyori \)} & \text{\( E. b. editus \)} \\
\text{Head and body} & 180 & 171 & 159 & 155 & 150 \\
\text{Tail} & 180 & 194 & 170 & 185 & 180 \\
\text{Hind foot} & 32 & 32 & 30 & 31 & 30 \\
\text{Ear} & 22 & 19 & 21 & 20 & 20 \\
\text{Skull: greatest length} & 41·5 & 40 & 38 & 37 & 38 \\
\text{" basilar length} & 34 & 32·5 & 31·5 & 30 & 31 \\
\text{" greatest breadth} & 19 & 18 & 18·7 & ? & 17·5 \\
\text{" diastema} & 11·5 & 10·8 & 10·5 & 10·3 & 10·5 \\
\text{" incisive foramina} & 8·6 & 7·3 & 7·8 & 7·1 & 7·2 \\
\text{" upper molar series} & 7·3 & 7·5 & 6·7 & 6·9 & 6·9 \\
\end{array}
\]

The known forms of the \( E \text{nomys hypoxanthus} \) group may be arranged in a key, as follows:—

A. Rather larger. Head and body 170–180 mm.; hind foot about 32; greatest length of skull 40. Upper molars larger, markedly broader. (W. Africa.)

a1. General colour darker, suffusion chestnut. Tail equal in length to head and body. (Gaboon &c.) \( hypoxanthus \) Puch.
General colour lighter, suffusion ochraceous. Tail longer than head
and body. (Angola.)

B. Rather smaller. Head and body 150–160 mm.; hind foot 30–31;
greatest length of skull about 38. Upper molars smaller, narrower.
(Congo and East Africa.)

a₁. Darker. Belly pure white, sharply defined. Skull stouter; bullae
larger; anterior margin of anteorbital plate concave, sloping
forward from base. (British East Africa.)

b₁. Paler. Belly edged laterally with buffy. Skull slighter; bullae
smaller; anterior margin of anteorbital plate straight, vertical.
(Unyoro.)

c₁. Paler. Belly edged laterally with buffy. Skull slighter; bullae
smaller; anterior margin of anteorbital plate concave, sloping
forward from base. (Ruwenzori.)

bacchante Thos.

unyori Thos.

b. editus, subsp. n.

69. Oenomys bacchante unyori Thos.

♂. 168. 30 miles N.W. of Fort Beni, Semliki Valley. 3000 ft.
♀. 337. Upper Congo.

70. Cricetomys gambianus Waterh.

♂. 74, 612, 666. ♀. 76, 608, 604, 613. Mubuku Valley, E. Ruwenzori. 6000–
6500 ft.

[These large Rats were not uncommon on Ruwenzori up to 7000 ft.; they appeared to
inhabit chiefly the more open and cultivated lands below the forest-line and, according
to the natives, did a good deal of damage among the bean-crops. They live in
burrows in the ground and seem to be entirely nocturnal. The natives eat their
flesh and make the skins into small bags or pouches for carrying pipes and tobacco, &c.
Native name “Kassumba.”—R. B. W.]

71. Malacomys centralis De Wint.

3 in spirits. Mpanga Forest.

These specimens are immature, but allowing for that they seem properly referable to
M. centralis, described by Mr. De Winton from Mombuttu.

[This species appears to inhabit only the damp and dark forests; it was obtained in
the Mpanga Forest, and was not uncommon.—R. B. W.]
72. Lophuromys aquilus True.
   \( \sigma \). 43, 55, 57, 61, 218, 629. \( \varphi \). 219, 229 (and 1 in spirits). Mubuku Valley, E. Ruwenzori. 6000 ft.
   \( \sigma \). 250, 641. \( \varphi \). 646. Mubuku Valley, E. Ruwenzori. 10,000–12,000 ft.
   1 in spirits. Between Masambi and Avakubi, Eturi Forest.
   2 in spirits. Mpanga Forest, Fort Portal.

The genus *Lophuromys* is found throughout the Ethiopian Region north of the Zambesi River. The unicolorous Western species (*L. sikupusi* Temm.) and the coarsely speckled Abyssinian animal (*L. flavopunctatus* Thos.) are distinguishable at sight from the finely speckled Eastern and Central African forms, the oldest name for which is *Mus aquilus* True.

Possibly owing to the tenderness of the skin, mentioned below by Mr. Woosnam, the material in this group available for comparison is insufficient to justify us in separating this Ruwenzori series from true *L. aquilus*, which was found on Kilimanjaro.

[Plentiful on Ruwenzori from the plains up to 12,500 ft., and obtained also in the Toro district and Congo Forest. They were numerous in some very swampy ground at 10,000 ft. and also at 12,000 ft., but they frequented the drier forest as well. The skin of this species is extraordinarily tender, just like wet tissue-paper.—R. B. W.]

73. Lophuromys laticeps Thos. & Wr.
   \( \varphi \). 318. Lake Kivu. 4900 ft. (*Douglas Carruthers*).

74. Lophuromys woosnami Thos. (Plate XXIV.)
   \( \sigma \). 232, 233, 608. \( \varphi \). 20, 47, 62, 224, 238, 241. Mubuku Valley, E. Ruwenzori. 6000 ft.
   \( \sigma \) 2 in spirits. Mubuku Valley, E. Ruwenzori. 7000 ft.
   \( \sigma \). 179. \( \varphi \). 180. North Ruwenzori.

An olive-grey species with large ears and long tail.

About the same size as *L. aquilus*. Fur straight; hairs of back about 10–11 mm. in length. General colour above between "olive" and "bistre," without the warmer rufous tone generally present in the East-African forms; the bases of the hairs are, however, of a rufous-brown colour. Mixed with the ordinary hairs of the back there are a variable number of buffy-white hairs, which produce a speckling somewhat similar to that of the grysbuck (*Nototragus melanotis*), but are almost absent in some specimens. Sides rather paler than back. Colour of under surface not sharply defined laterally, very variable, ranging from near wood-brown to tawny clay-colour; the throat rather whiter. Head like back; area round eyes nearly black. Ears very large, finely haired, black, with whitish edges. Upper surface of hands and feet pale.
brownish-white. Tail long, slender, almost naked, markedly less hairy than in the other species; blackish above, whitish flesh-colour below.

Skull with a long slender muzzle; interorbital region broad, edged with well-defined ridges, but without postorbital projections; outer wall of anteorbital foramen reduced to a narrow bar less than half the breadth of the corresponding part in *L. aquilus* and *L. flavopunctatus*; it is, however, similarly narrow in the West-African *L. sikapusi*.

Incisors more as in *Mus* than in other *Lophuromys*, their anterior surface not curved round in the way generally characteristic of the present genus. Molars very broad, with well-defined cusps; their pattern as usual.

Dimensions of the type (measured in the flesh):

- Head and body 118 mm.; tail 111; hind foot 22·5; ear 23.
- Skull: greatest length 30·5; basilar length 24; greatest breadth 14·3; nasals $14 \times 3·2$; interorbital breadth 6·7; diastema 8; palatine length 12·4; palatine foramina 6·5; length of upper molar series 4·8.


This striking species is widely different from any of the Central- and East-African forms of *Lophuromys*, and might almost be considered generically distinct were it not that the West-African *L. sikapusi* also possesses some of its characters. Its large ears, long tail, and peculiar olive-coloured white-speckled fur readily distinguish the species from all its allies.

[Not uncommon on Ruwenzori, but only obtained up to an altitude of 8000 ft. They inhabited both the forest and grass-country. Both this species and *L. aquilus* have a curious odour, quite unlike that of other mice.—R. B. W.]

75. *Dasymys montanus* Thos.

♀ 70, 654. ♀ 80, 255. Mubuku Valley, E. Ruwenzori. 12,500 ft.
♀ in spirits. Mubuku Valley, E. Ruwenzori. 12,500 ft.

A very long-haired species, with short tail.

Size medium. Fur very long and fine; the ordinary hairs of the back about 15 mm. in length. General colour above uniformly finely speckled mummy-brown, the light rings on the hairs near clay-colour. A number of the longer hairs with a greenish iridescence. Sides but little paler than back. Under surface bluish-grey, the slaty bases of the hairs little hidden by the dull pale drab tips. Ears large, black, contrasting with the general brown colour. Upper surface of hands and feet pale brown, the digits lighter. Tail practically naked, the scales quite unhidden, blackish throughout.

Skull shorter and broader and the zygomatic more squarely expanded anteriorly than in other species.

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Dimensions of the type (measured in the flesh):—
Head and body 137 mm.; tail 105; hind foot 27; ear 19.
Skull: length of upper molar series 7·3.
Another skull measures:—Greatest length 35; basilar length 30·6; greatest breadth 21·2; nasals 12·3 × 4·3; palatinal length 17·8; length of upper molar series 7·1.

Type, Female. B.M. no. 6.7.1.79. Original number 255. Collected 30th January, 1906, by Mr. Douglas Carruthers.

D. montanus is readily distinguishable from all other species by its long fur and short tail.

[Vast numbers of Swamp-Rats, apparently of two species only, D. montanus and Otomys dartmouthi, inhabited the boggy moss-covered ground between 12,000 and 14,000 ft., and their runs were to be seen in all directions in the deep moss. They were feeding upon the blossoms of the everlasting flowers and young rushes, and apparently on moss as well. In spite of their numbers they were extremely difficult to catch, and refused all such baits as beans, potatoes, banana, bread, &c.; one or two came to a bait of oatmeal, but they were more often caught by having run over the bait and so sprung the trap. They are probably diurnal, for several were caught in the traps during the daytime.—R. B. W.]

76. DASYMYS MEDIUS Thos.

A grey species allied to D. bentleyae.
Size medium, rather larger than in D. bentleyae. Fur comparatively coarse and shaggy; hairs of back about 12–13 mm. in length. General colour above greyish-“hair-brown,” greyer on the head and fore-back, warmer and browner on the rump; darkened throughout by the black ends to the longer hairs. Sides greyer, passing gradually into the grey of the under surface, where the tips of the hairs are dull greyish-white, their slaty bases showing through. Ears well haired, greyish-brown, not markedly darker than the general tone. Upper surface of hands and feet pale brown. Tail rather long, thinly clothed with fine hairs, not hiding the scales, brown above and below.

Skull larger than that of D. bentleyae and markedly higher in the brain-case. Interorbital region parallel-sided, evenly narrow throughout, not broadening posteriorly as in D. bentleyae. Bullæ decidedly larger than in that species.
Dimensions of the type (measured in the flesh):—
Head and body 143 mm.; tail 128; hind foot 28·5; ear 19.
Skull: greatest length 34·3; basilar length 30; greatest breadth 18·5; length of
nasals 12; diastema 10·3; palatilar length 17·5; palatal foramina 7·6; length of upper molar series 7.

_type._ Female. B.M. no. 6.7.1.75. Original number 38. Collected 16th January, 1906, by Mr. R. E. Dent.

No species of _Dasypus_ have been hitherto described from this part of Africa, the nearest being the Lower Congo _D. bentleyae_, from which the present animal differs by the characters above mentioned. From the _D. montanus_ of the higher altitudes of Ruwenzori it is, of course, at once distinguishable by its shorter coarser fur and much longer tail.

[Numerous on Ruwenzori from 6000 ft. up to 9000 ft. They inhabited chiefly the bottoms of the valleys near streams, but were also caught occasionally on the drier ridges.—R. B. W.]

77. _Arvicanthis massaicus_ Pagenst.

♂. 28, 60, 64, 85, 208, 210, 631. ♀. 8, 53, 281. Mubuku Valley, E. Ruwenzori. 6000–6500 ft.

♂. 298. Mokia, S.E. Ruwenzori. 3400 ft.

♂. 683. Fort Beni, Semiliki Valley.

♂ in spirits. Mpanga Forest, Fort Portal.

♀. 317. Lake Kivu. 4900 ft. (Douglas Carrathers.)

[Very numerous both on Ruwenzori up to 7000 ft. and on the plains below the mountains. This species is apparently both diurnal and nocturnal. Native name, “Naruberi.”—R. B. W.]

78. _Arvicanthis macculus_, sp. n. (Plate XXIV.)


An _Arvicanthis_ of the _A. pulchellus_ group, but smaller than that species.

Colouring very much as in _A. pulchellus_ or _A. massaicus_, but the pale spots smaller; the yellow marking on the face, so noticeable in _A. massaicus_, almost entirely wanting.

Dimensions of the type:

- Head and body 105 mm.; tail 111; hind foot 22; ear 17.
- Skull: greatest length 28; basilar length 22·3; greatest breadth 13·4; brain-case breadth 11·6; interorbital breadth 4·9; diastema 7; length of upper molar series 4·8.


The male is rather younger than the type, and the other female is still younger, but allowing for this they correspond in all essential characters with the type. This is the smallest form of spotted (as distinguished from the striped, _A. barbarus_ group) _Arvicanthis_ yet described.
79. Arvicathis abyssinicus Rüpp.

♂ 139, 299. ♀ 138, 675. Mokia, S.E. Ruwenzori. 3400 ft.

[Plentiful on Ruwenzori up to the lower edge of the forest-zone at 6500 ft., and occasionally seen among the dry acacia-country on the plains around the south end of the range. This species is quite diurnal, and may be seen in the bright sunlight feeding upon the millet put out to dry in front of the native huts.—R. B. W.]

Family Octodontidae.

80. Throtonymys harrisoni Thos. & Wr.

♂ 310. Fort Beni, Semiliki Valley. 3000 ft.

This species was based on a specimen obtained by Col. Harrison from the Lado District; another was obtained by the Alexander-Gosling Expedition on the Welle River.

T. swinderianus occupies, practically unchanged, the whole of the Ethiopian area; while, so far as we yet know, the group made up of T. gregorianus, T. sclateri, and the present species is limited to a comparatively small area north and south of the Equator (between 25° and 35° E. long.).

[This animal was not obtained on Ruwenzori, and the natives said it did not exist there, although it was found on the plains below. A single specimen was found at Fort Beni, in the Semiliki Valley, and it is probable that it also occurs on the north-west slopes of Ruwenzori which join with the Congo Forest.—R. B. W.]

Family Procaviidae.

81. Procavia ruwenzorii Neum.

♂ 71, 256, 624, 628; 73, 267, 268, 269. ♀ 68, 260, 261, 648, 649; 270, 271, 650. Mubuku Valley, E. Ruwenzori, 10,000 ft.

The Ruwenzori Dassie was first obtained by Sir H. H. Johnston, from whose specimens Prof. Neumann described the species.

[Only one species of Hyrax was obtained on Ruwenzori; it was found from 10,000 up to 14,200 ft., but is scarce above 12,500 ft. It was most numerous from 10,000 to 12,000 ft., frequenting the cliffs and caves among the tree-heath zone.

The noises these animals make at night are most remarkable: there are two distinct sounds—one a shrill hissing squeal very like the note of a Barn-Owl, but louder; the other a much lower-toned chattering or rattling sound, not unlike that made by a large frog, but with a hissing sound in it. The native hunters say that the male makes one sound and the female the other. They do not commence these noises immediately it is dark, as might be expected, but some hours later. The cliffs around
the camp called "Kitchenu," at 10,000 ft., swarmed with Hyrax, and at about 8 p.m. or later they would begin their calls. First one or two would break the silence, to be answered by more from another cliff; then others would join in, till the whole valley resounded with their unearthly noises. Gradually the chorus would dwindle, till after an hour or two scarcely one would be heard. Some nights there seemed to be many more animals calling, and some nights hardly any. They were certainly weird and extraordinary noises in a weird and extraordinary place, and had ventriloquistic effects possibly caused by the great overhanging cliff under which the camp was placed, which magnified and distorted the sounds. These noises are undoubtedly responsible for the Ruwenzori "ghost-story."

In the Mubuku Valley the natives trap the Hyrax with an ingenious spring noose, following them as high as 12,500 ft. This is the origin of the path to the snows which exists in the Mubuku Valley but not in the Luimi, as the natives do not hunt the Hyrax in the latter valley. They use the fur for clothing, and also sell a great deal of it to the natives of the plains in exchange for iron tools and spear-heads. They eat the flesh, not because they prefer it, but because flesh of any sort is a highly-prized article of food. We once tried a Hyrax-stew, but it was very tough and not so good as rabbit—just what one would expect a cat to taste like. These animals are apparently nocturnal, although they were occasionally seen in the daytime when it was dark and misty.—R. B. W.]

**Family Su i d e.**

82. *Potamochoerus cheiroptamus* Desmoul.

♂ skull; ♀ skull (imm.). Mubuku Valley, E. Ruwenzori. 6000 ft.

These Pigs belong most probably to the subspecies from Kilimanjaro named by Dr. Forsyth Major *P. c. damonis* from a female. The female skull in this series is unfortunately too young for definite identification.

[Pigs were numerous on Ruwenzori and were found as high as 8000 ft. They were one of the most difficult animals to obtain. They come out of the dense thickets and jungle at night to feed on the native cultivations, and do enormous damage. The skulls obtained were those of Pigs killed by Lions near the camp. The Lions in this district feed almost exclusively on Pigs, and for this reason the natives dislike them being killed.—R. B. W.]

**Family B o v i d e.**

83. *Cephalophus rubidus* Thos.

♂. Mubuku Valley, E. Ruwenzori. 10,000 ft.

[Not uncommon on Ruwenzori up to 10,000 ft., but very difficult to obtain. They
utter a curious shrill cry when disturbed. The natives occasionally catch them in large snares of thin strong creepers; they say they can also catch Pigs in this way, but failed to do so during our visit.—R. B. W.]

84. Cephalophus equatorialis Matsch.
   ♀. 690. Avakubi, E. Congo Forest.
   [Very numerous in the Congo Forest. The pigmies catch them alive in nets.—R. B. W.]

Family MANIDÆ.

85. Manis longicaudatus Briss.
   ♀. Avakubi, E. Congo Forest.
   [A flat skin obtained from natives in the Congo Forest.—R. B. W.]
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THE PUBLICATIONS OF THE ZOOLOGICAL SOCIETY OF LONDON.


According to the present arrangements, the "Proceedings" contain not only notices of all business transacted at the scientific meetings, but also all the papers read at such meetings and recommended to be published in the "Proceedings" by the Committee of Publication. A large number of coloured plates and engravings are issued in the "Proceedings," to illustrate the new or otherwise remarkable species of animals described in them. Among such illustrations, figures of the new or rare species acquired in a living state for the Society's Gardens are often given.

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P. CHALMERS MITCHELL,

Secretary.
This mouse according to measurements and to skull seems to be exactly what Hollister in his list of East African mammals is calling Mus gratus. We have one specimen of L. musculoides from the Kamerun identified by Thomas in 1904, but this mouse is quite different from its fur the Congo animal. Its skull is much larger and is very much darker in color, about like that of Hollister's Mus gratus. However, because of lack of material it is impossible to tell just what species this Congo mouse is. It is much lighter in color than the East African Mus gratus, but shows no other difference.
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