

MISSION SCIENTIFIQUE DE L'OMO

TOME IV. — FASCICULE 35.

ORTHOPTERA

III. ACRIDIDAE

by

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(London)

Dr. JEANNEL's invitation to work out the Acrididae collected by his expedition made me feel not only greatly honoured, but also very pleased, because the expedition visited two very distinct types of country, both of great interest to me. One type of fauna represented in the collection was that of the higher altitudes of Mount Elgon and some other East African mountains ; in this I was interested because of my recent work on the fauna of the Abyssinian highlands ¹. The second type was represented by the fauna of the Turkana desert, which remained entirely unknown, while my interest in desert faunas goes back to my earliest days as an orthopterist.

In preparing the following account, I have included in it not only the collections of the expedition, but also some material collected in the same areas recently by several British entomologists (principally by the Lake Rudolf-Rift Valley Expedition with which Mr. D. R. Buxton was partly associated ; by Dr. F. W. Edwards ; and by Mr. H. B. Johnston), because they contribute to a more complete representation of the faunas concerned.

The types of the new species collected by the Mission de l'Omo are preserved in the Museum d'Histoire Naturelle, Paris and those of the others in the British Museum (Natural History).

I regard it as my pleasant duty to record my sincere gratitude to Dr. R. JEANNEL for entrusting me with the work on his collection, and to my friend Dr. L. CHOPARD for his kind assistance in this connection.

1. Entomological expedition to Abyssinia, 1926-1927. Orthoptera of the families *Mantidae*, *Gryllidae*, *Tettigoniidae* and *Acrididae*. (*Linnean Soc. Journal, Zoology*, vol. XXXVIII, pp. 591-614, 10 figures.)

Some zoogeographical notes.

The Acridid fauna of East Africa is still very incompletely known, and it would be, therefore, of little value to try and analyse the zoogeographical relations of all species collected by the Mission de l'Omo at all stations, though they are enumerated in the list below. On the other hand, some interesting conclusions can already be drawn from the study of those species which belong to the two special faunas mentioned above, viz. the fauna of the high mountains, particularly of Elgon, and that of the desert bordering on lake Rudolf. The following remarks are restricted to these two types of fauna.

FAUNA OF MOUNT ELGON.—No Acridids were known from Mt. Elgon until I have described *Paracomacris elgonensis* Uv. taken at an altitude 12,000 ft (about 3,500 m.) by Mr. G. L. R. HANCOCK¹. Three years later a fairly long list containing several new species, was published by Sjöstedt², on the basis of collections made by the expedition of Dr. Sven Loven and Professor G. Lindblom in 1920. The collections brought back by Dr. Jeannel's expedition, as well as those made by Mr. H. B. Johnston and by Dr. F. W. Edwards, contain several species not collected by the Swedish expedition.

The following list includes all species known to occur on Mount Elgon at altitudes of over 2,000 metres.

	Altitude.	Recorded by.
<i>Cannula linearis</i> Sauss.	2,210	Uv.
<i>Odontomelus pallidus</i> Sjöst.	2,300	Sj., Uv.
<i>Paracomacris centralis</i> Rehn	2,300	Uv.
* <i>Paracomacris elgonensis</i> Sjöst.	2,000-4,000	Sj., Uv.
<i>Roduniella insipida</i> (Karsch).	1,300-2,300	Uv.
* <i>Anablepia elgonensis</i> (Sjöst.).	1,700-2,000	Sj.
<i>Gymnobothrus temporalis</i> (St.)	2,000-2,210	Sj.
<i>Gymnobothrus fallax</i> (Karny).	2,470	Uv.
<i>Brachycrotaphus</i> sp.	2,210	Uv.
<i>Aulacobothrus calcaratus</i> Sjöst.	2,000	Sj.
<i>Ogmothela gracilis</i> Ramme.	1,700-2,000	Sj.
<i>Pnorisa squalus</i> St.	1,700-2,210	Sj., Uv.
<i>Aiolopus</i> sp.	2,470	Uv.
<i>Gastrimargus brevipes</i> Sjöst.	2,000	Sj.
* <i>Gastrimargus brevipes elgonensis</i> Sjöst.	1,700-2,000	Sj.
<i>Heteropternis coulöniana</i> Sauss.	1,700-4,000	Sj.

1. A new alpine grasshopper from Mount Elgon. (*Ann. and Mag. Nat. Hist.*, ser. 10, vol. V, 1930, p. 249.)

2. Sammlungen der schwedischen Elgon-Expedition in Jahre 1920. *Acrididae*, *Mantidae* und *Phasmidae*. (*Arkiv for Zoologi*, Bd. 26 A, n° 11, 1933.)

	Altitude.	Recorded by.
<i>Trilophidia</i> sp.	2.000-2.210	Sj., Uv.
<i>Acrotylus elgonensis</i> Sjöst	2.000	Sj.
<i>Acrotylus patruelis</i> (H.-S.)	1.700-2.000	Sj.
<i>Tapesia grisea intermedia</i> Sjöst.	2.100	Uv.
<i>Phymateus purpurascens</i> Karsch	2.000	Sj.
* <i>Parasphena elgonensis</i> Sjsöt.	1.700-3.800	Sj., Uv.
* <i>Caloptenopsis elgonensis</i> Sjöst.	2.000-2.210	Sj., Uv.
<i>Platyphymus granulatus</i> Uv.	2.000	Sj.
* <i>Euprepocnemis brachyptera</i> Sjöst	2.000-3.400	Sj., Uv.
<i>Oxyaidea Carli</i> I. Bol	2.000	Sj.
<i>Catantops dubiosus</i> Sjöst.	2.210	Uv.
* <i>Catantops lobipennis</i> Sjöst	2.000-3.000	Sj.
* <i>Catantops simplex elgonensis</i> Sjöst.	1.700-2.000	Sj.
<i>Catantops decoratus concolor</i> Karny	2.000	Sj.
<i>Paracoptacra cauta</i> Karsch.	2.000	Sj.
<i>Acanthacris ruficornis fulva</i> Sjöst	1.700-4.000	Sj., Uv.
<i>Acanthacris ruficornis Gyldenstolpei</i> Sjöst.	2.000	Sj.

The list contains 33 species and subspecies, and may convey an impression that the mountain fauna of Elgon is fairly rich. However, this impression is quite incorrect since the great majority of the species occur at much lower altitudes, as well, and their occurrence on Mount Elgon is explained merely by the fact that the tropical East African flora and fauna ascend to altitudes much higher than 2.000 metres, which has been adopted in the list. Indeed, out of the whole list, only eight species, marked with an asterisk, are not known from anywhere except Mount Elgon, and this presumably endemic group presents most interest to us.

This group includes, first of all, two subspecies of widely distributed East African species, namely *Gastrimargus brevipes elgonensis* and *Catantops simplex elgonensis*; both of them, moreover, not known to ascend above 2.000 metres. *Caloptenopsis elgonensis* also probably belongs here, as it is closely related to *C. ferrifer* (Walk.) and may represent only its subspecies (see below). Of the remaining five species, *Anablepia elgonensis* also just reaches the 2.000 metres limit and cannot be considered a true mountain form.

There remain, however, four species which ascend to 3-4.000 metres and represent at least a subalpine fauna. They are : *Paracomacris elgonensis*, *Parasphena elgonensis*, *Euprepocnemis brachyptera* and *Catantops lobipennis*. Three of these four species are characterised by strongly abbreviated wings and are unable to fly, while *Parasphena elgonensis* is quite apterous. In this respect we find a perfect agreement with the Abyssinian subalpine fauna (UVAROV, l. c.). This agreement extends even further, since *Paracomacris elgonensis* and *Parasphena elgonensis* have parallel species in the Abyssinian

highlands, and indeed parallel species of *Paraphena* occur on other East African mountains. As I have suggested in discussing the Abyssinian mountain fauna, the short-winged *Paracomacris* represents obviously a mountain modification of the genus widely distributed in the African lowlands. The same can be said with regard to *Euprepocnemis brachyptera* and *Catanops lobipennis*, which are quite closely related to macropterous lowland species.

We see, therefore, that the subalpine fauna of Mount Elgon is characterised by the presence of a small number of brachypterous endemic species, but all of them exhibit a close relationship with species widely distributed in lowlands of Tropical Africa. It must be concluded that the mountain fauna of Elgon represents a relatively recent development of the lowland fauna.

I am, thus, unable to find in the Acridid fauna of Elgon any trace of the elements which Dr. JEANNEL¹ considers of Palaearctic origin. Nevertheless, I venture to suggest an explanation of their absence, which at the same time may serve for a better understanding of their geological history.

It is noteworthy that the, so called, palaearctic elements in the Carabid fauna of Elgon exhibit affinities mainly with species of the Western Mediterranean, or Ibero-Mauretanian massif. This affinity led Dr. JEANNEL to suggest that they should have penetrated into Tropical Africa across the Sahara when the latter was not a desert country. However, Dr. JEANNEL himself points out a curious resemblance of the *Trechus* fauna of Elgon with that of the Canaries and Madeira, and to me this appears much more significant than a mere resemblance. The evidence, so ably summarised by Dr. JEANNEL, suggests to me that it may be reasonable to consider the Mediterranean elements in the Elgon fauna not as immigrants from the north, but as relics of an ancient Atlantic fauna, other fragments of which can be found in the Canaries, Madeira, and in the Mediterranean mountains, eastwards to the Caucasus. It would be scarcely profitable to speculate now about the geological age of that fauna, but this explanation of the existence of Mediterranean elements in the Elgon fauna appears to me more reasonable than a migration across the vast plains of Northern Africa, even when they were not desert in their character.

An additional argument in favour of the relict Archatlantic² character of the Elgon fauna may be seen in the presence in its flora (as in that of other East African mountains) of arborescent *Senecio* spp., which even in historical times flourished on Saint Helena.

This theory also accounts for the absence of Atlantic elements in the Acridid fauna of Elgon. Some « palaearctic » elements, as is pointed out by Dr. JEANNEL have survived on Elgon only at fairly high altitudes, and

1. Mission scientifique de l'Omo, t. II, fasc. II, p. 26.

2. This very apt term belongs to Dr Jeannel (See *Arch. Mus. Hist. Nat.*, Paris, XII, 1935, p. 415).

their northern relatives also live mostly on mountains. Now, the Acridid fauna of the Mediterranean mountains contains no ancient elements in it as I have shown elsewhere¹, and all known Atlantic elements are restricted to low altitudes. Therefore, it appears probable that the ancient Atlantic fauna, relics of which are represented by *Trechus* on Elgon, contained no alpine *Acrididae*, while it included alpine *Trechus*. Accordingly, only the latter were preserved on Elgon until our day, while the Atlantic *Acrididae* occurring at lower altitudes, have been exterminated owing to the excessive humidity when the climate became tropical.

It must be understood that the above theory is offered here in a tentative way, merely in order to draw the attention of biogeographers to a possibility of explaining the composition of the flora and fauna of the East African mountains without postulating a southward migration of « Palaeartic » elements. This latter adjective is placed in inverted commas, because it is somewhat misleading when applied to the faunistic and floristic elements of purely Mediterranean origin, while the term Palaeartic covers a much wider group, including also elements of the Angara stock which obviously do not enter into the discussion.

FAUNA OF THE TURKANA DESERT. — The present paper contains the first list of *Acrididae* known to occur in the country west and north of the lake Rudolf, the fauna of which remained hitherto unexplored. The landscapes of the Turkana and of the Omo plains, as described by Dr. JEANNEL² are very desert-like, and it appeared of great interest to see the relation of their fauna to that of the great deserts of Northern Africa.

The following is a complete list of the Acridid fauna of that country as far as it is known, with brief remarks on the general distribution of each species.

It should be noted that only those species are included in the list which have been taken actually in the desert parts of the Turkana country. Therefore, the species recorded in the systematic part from « Deserts du Turkana » are not found in this list, if they are from non-desert localities, such as Moroto, West Suk etc.

		Distribution.
	<i>Acrida Stali</i> I. Bol.	Trop. Africa
*	<i>Platypterna nilotica</i> Salfi	Sinai, N. E. Africa
	— sp.	
**	— <i>salfiana</i> Uv.	Endemic
	<i>Platypternodes</i> sp.	
	— <i>Rudolfi</i> Uv.	Endemic

1. *Orthoptera* of the mountains of Palaeartic region. Contribution à l'étude du peuplement des Hautes Montagnes. (*Société de Biogéographie*, Paris, 1928, pp. 135-141.)

2. *Un cimetière d'éléphants*. (Paris, 1934.)

Distribution.

<i>Aulacobothrus</i> sp.	
<i>Stenohippus aequus</i> Uv.	W. Africa, Sudan
* — <i>aethiopicus</i> Uv.	Sudan
<i>Paracomacris stenopterus</i> (Sch.)	E. Africa
<i>Jasomenia dimidiata</i> I. Bol.	S. E. Africa
<i>Paracinema tricolor</i> (Thnbg.)	Trop. Africa
* <i>Calephorus venustus</i> (Wlk.)	N. E. Africa
* <i>Aiolopus affinis</i> (I. Bol.)	N. E. Africa, S. W. Asia, India
* <i>Oedaleus senegalensis</i> Kr.	N. & E. Africa, S. W. Asia
— <i>citrinus</i> Sauss.	S. W. Africa
<i>Gastrimargus volkensi</i> Sjöst.	E. Africa
<i>Locusta migratoria migratorioides</i> , (R. & F).	
<i>Humbe tenuicornis</i> (Sch.)	Trop. Africa
* <i>Scintharista notabilis brunneri</i> Sauss.	N. E. Africa, S. W. Asia
* <i>Pynodictya galinieri</i> (R. & F.)	N. E. Africa, S. Arabia
** — <i>dimorpha turkanae</i> Uv.	Endemic
<i>Morphacris fasciata sulcata</i> (Thnbg.)	Trop. Africa, S. Asia
* <i>Acrotylus longipes incarnatus</i> Kr.	Somaliland, S. Arabia
* <i>Sphingonotus savignyi</i> Sauss.	N. Africa, W. Asia
* — <i>canariensis</i> Sauss.	Cape Verde Islds., W. & N. E. Africa, Arabia
** — <i>turkanae</i> Uv.	Endemic
* — <i>rubescens</i> (Wlk.)	N. Africa, W. Asia
<i>Lamarckiana</i> sp.	
<i>Chrotogonus</i> sp.	
<i>Atractomorpha aurivillii</i> I. Bol.	Trop. Africa
<i>Caloptenopsis</i> sp.	
<i>Stenocrobylus</i> sp.	
<i>Catantops melanostictus</i> Sch.	Trop. Africa
— <i>saucius</i> (Burm.)	Trop. Africa, S. W. Asia
** <i>Abisares depressus</i> Uv.	Endemic
** <i>Ischnansis curvicerca</i> Uv.	Endemic
<i>Cyrtacanthacris tatarica</i> (L.)	Trop. Africa, S. Asia

It will be seen that as many as 37 species are known from the Turkana and Omo country. This number is rather high for a desert, and the reason for this is not far to seek, since apart from 7 undetermined species there are not less than 11 species which are more or less widely distributed in Africa south of the Sahara, some of them extending their range into Southern Asia, as well. These 11 species suggest at once that the Turkana-Omo fauna is not wholly desert in its character, but contains many species common in African savannas.

There remain 16 species, marked in the list with one or two asterisks, which can be considered as more typical of a desert fauna, six of them, marked with two asterisks, being so far unknown from elsewhere. If we consider the generic affinities of these 16 species, we will see that at least six of them belong to typical savanna genera, such as *Platypternodes*, *Stenohippus*, *Aiolopus*, *Oedaleus*, *Abisares*, *Ischnansis*; one (*Calephorus*) lives in desert conditions, but near water; and only ten can be classified as true desert insects, viz. two species of *Platypterna*, one *Scintharista*, two species of *Pycnodictya*, one *Acrotylus* and particularly four species of *Sphingonotus*. This pure desert group can be subdivided into two. One of the sub-groups would include the species of wide Eremian distribution, viz. *Sphingonotus Savignyi*, *canariensis* and *rubescens*, the first and the last of which extend their range right across the desert Africa and into Central Asia and Western India, being most widely spread members of their genus. The second sub-group exhibits special affinity with the desert fauna of the countries round the Red Sea. It includes four species of such distribution (*Platypterna nilotica*, *Scintharista notabilis Brunneri*, *Pycnodictya Galinieri* and *Acrotylus longipes incarnatus*), while the remaining three (*Platypterna salfiana*, *Pycnodictya dimorpha turkanae* and *Sphingonotus turkanae*) apparently endemic to the Turkana desert, are closely allied to Somalian species.

It would appear, therefore, that the Turkana-Omo country can scarcely be classified as a true desert, but rather as a relatively recently desiccated savanna. Its fauna is obviously derived from a tropical savanna fauna, greatly impoverished in the number of species. Some of the savanna genera have produced here such endemic species as *Abisares depressus*, *Ischnansis curvicerca*. On the other hand, the desiccation of the region enabled a penetration of desert forms, and their strong affinity with the peculiar Somali-Arabian fauna suggests that the Turkana-Omo country received its desert population not directly from the Sahara in the north, but from Somaliland in the east. Indeed, it appears that even such widely distributed species as *Sphingonotus rubescens* and *S. Savignyi* have reached our country in this roundabout way, since they are not known to occur in the Southern Sudan.

Fam. ACRIDIDAE

Subfamily. Acridinae

Acrida Stali I. Bolivar, 1893 ?

Déserts du Turkana : Lokitaung district, IV, 1 ♂, 1 ♀ (D. Buxton); West Suk, 1 ♂ larva.

Acrida sulphuripennis (Gerstaecker, 1873).

Déserts du Turkana : Moroto, VII, 1 ♂, 1 ♀ (D. Buxton).

Acridella Rendalli (Kirby 1902)

1902. *Acrida Rendalli*, Kirby, Trans. Ent. Soc. London, 1902, p. 62. — 1902. *Acrida aspersata*, Kirby, *l. c.*, p. 63. — 1911. *Acridella Sheffieldi*, I. Bolivar, Mem. Soc. Ent. Belg., XIX, p. 75. — 1911. *Acridella stigmatica*, I. Bolivar, *l. c.*, p. 75 (*syn. nov.*).

Déserts du Turkana : Kacheliba, V, 2 ♀♀ ; Mt. Kaitherin, IV, 1 ♂ (D. R. Buxton).

The first three synonyms refer to the female sex, remarkable for the uniformly purple wing base, and they have been discussed by me elsewhere. *A. stigmatica*, which is a male with pale yellow wings, however, also belongs to this species, as I am able to conclude from its morphological similarity to the female and from the fact that it occurs together with the purple-winged females.

The species has been previously known only from the Transvaal and the Katanga province of the Belgian Congo, but it is represented in the British Museum by specimens from S. Rhodesia and Tanganyika Territory, on one hand, and from Northern Nigeria, on the other. Its occurrence in the Turkana is, therefore, not quite unexpected, but of considerable interest.

Cannula linearis (Saussure, 1861)

Mont Elgon : Camp I, 1 ♀.

Parga xanthoptera (Stål, 1855)

Plateau du Uasin Gishu : Kitale, 1 ♂, 1 ♀.

Amphicremna brevipennis Miller, 1932 ?

Déserts du Turkana : Mt. Kaitherin, IV, 2 ♀♀ (D. Buxton).

I cannot be certain of my determination since this species is known in the male sex alone. The pronotum in the two females is distinctly narrowed in metazona, the elytra are very narrow and pointed, and wings colourless.

Odontomelus pallidus Sjöstedt, 1912

Mont Elgon : 5.000-7.000 ft., 5 ♂♂, 4 ♀♀ (H. B. Johnston). Recorded also by Sjöstedt.

Wilwerthia ugandana, n. sp.

(Fig. 1.)

Differs from *W. acuminata*, I. Bolivar, by the relatively shorter antennae, more narrow fastigium of vertex and pronotal disc, and by the longer and not recurved male subgenital plate.

♂. Antennae if bent backwards reaching the base of hind femur ; the expanded basal portion a little less than half the length ; joints of the apical portion

thick, round and relatively short (the longest is about one third as long again as it is broad).

Frontal ridge in profile strongly oblique, a little prominent between the antennae, concave below them; seen from the front it is a little expanded between the antennae and again towards the clypeus; surface sulcate and rugulose, margins raised, irregular. Face rugulose. Fastigium of vertex parabolic, distinctly longer than broad; transverse sulcus semicircular, well removed from the apex.

Pronotal disc narrow, its length being almost four times as great as its width. Metazona much shorter than prozona. Lateral carinae sharp, straight. Lateral lobes rugulose; lower margin not sinuate.

Elytra extending well beyond the hind knees and the end of abdomen; apex acute.

Hind knee with the inner upper angle more prominent than the outer angle.

Subgenital plate long and narrow; lower margin straight; apex slightly decurved.

Coloration brownish-buff, mottled with brown. A light fascia runs along the middle of the head, pronotum and the anal area of elytra, and is included between two dark-brown ones.

♀. Antennae extending to the base of middle femora.

Length of body ♂ 21, ♀ 26; pronotum ♂ 4, ♀ 5; elytra ♂ 18.5, ♀ 23; hind femur ♂ 13, ♀ 16 mm.

Plateau du Uasin Gishu: Kitale, 5 ♂♂ (including the type), 13 ♀♀, 1 larva ♀; Kapenguria, 4 ♂♂, 1 ♀. 7.11 (D. Buxton).

Mont Elgon: Buwalasi, 5,000 ft. 1 ♀ (H. B. Johnston).

***Rhabdoplea mira* Karsch, 1893 ?**

Plateau du Uasin Gishu: Kitale, 2 ♀♀.

The females were compared with the types of *R. mira* and proved to differ by the antennae and fastigium of vertex being somewhat shorter, but the taxonomic value of these small differences cannot be established without studying large series of specimens.

***Rhabdoplea munda* Karsch, 1893**

Plateau du Uasin Gishu: Kitale, 1 ♂, 2 ♀♀.

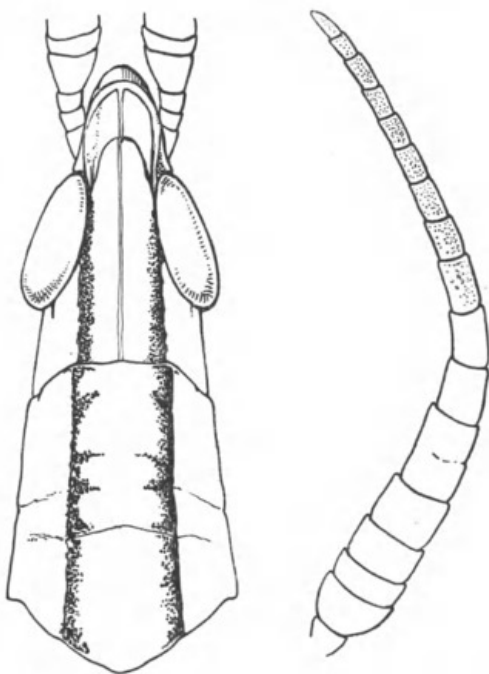


Fig. 1. *Wilwerthia ugandana*, sp. n. ♂.

Brachycrotaphus tryxalicerus (Fischer, 1853)

Déserts du Turkana : Moroto, VII, 2 ♂♂, 2 ♀♀ (D. Buxton).

Brachycrotaphus sp.

Mont Elgon : Camp 1, 1 ♀.

A species different from the preceding, but impossible to determine without the male sex.

Brachycrotaphus brevis, n. sp.

(Fig. 2.)

Allied to *B. Kraussi* Uv. from Abyssinia, but different from all known species in the abbreviated elytra.

♂. Antennae distinctly longer than head and pronotum together, relatively stout ; joints 3-8 expanded, but not quite flat ; 5 transverse ; 6 and 7 a little

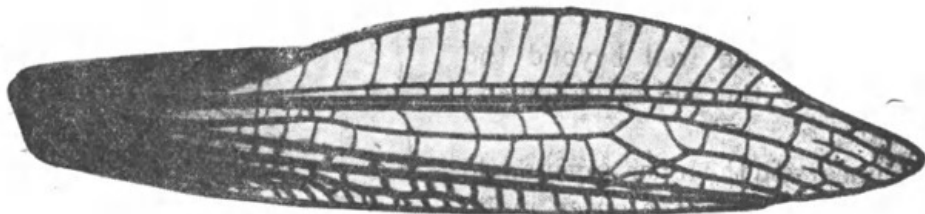


Fig. 2. *Brachycrotaphus brevis*, sp. n., ♂.

longer than wide ; 8 distinctly elongate ; the rest round, punctured, elongate.

Fastigium of vertex elliptical, shorter than an eye ; transverse sulcus parabolic, incomplete.

Pronotum without supplementary carinae ; lateral carinae weak, straight. Disc rugulose, more densely so in the metazona. Typical sulcus well behind the middle.

Elytra reaching just to the apex of abdomen. Scapular area strongly expanded. First and second radial veins straight ; the area between them very narrow. First ulnar vein strongly bent forward in the basal third, almost touching the third radial ; the apical portion of the discoidal field with five large cells. Interulnar area weakly contracted in the middle, with large cells.

Hind tibiae with 16 inner spines ; spines 9-15 expanded and ridged, with the apices up-curved.

Cercus short, recurved.

Colouration brownish-stramineous, without pattern.

♀. Fastigium parabolic, much shorter than an eye. Elytra reaching a little beyond the middle of abdomen ; discoidal area with an almost complete false vein ; interulnar area with an incomplete false vein.

Total length ♂ 18, ♀ 24 ; pronotum ♂ 3, ♀ 4 ; elytra ♂ 10,5, ♀ 12 ; hind femur ♂ 8, ♀ 11 mm.

Déserts du Turkana : Mount Kaitherin, IV, 2 ♂♂ (Including the type), 1 ♀ (D. Buxton).

This is the first species of the genus with abbreviated elytra. While it is closely similar in the venation to the Abyssinian *B. Kraussi* Uv., it differs from it in the larger number of tibial spines and their structure, as well as in the antennae and fastigium.

***Platypterna nilotica* Salfi 1931**

Déserts du Turkana : Lake Rudolf, Ferguson Bay, IV. 1934, 4 ♂♂, 8 ♀♀ ; Lodwar, 5. IV. 1934, 1 ♂ ; Kabua, 7. V. 1934, 1 ♀ (D. Buxton) ; Lake Rudolf Central Island, 25. IV. 1934, 3 ♂♂, 1 ♀ (Lake Rudolf-Rift Valley Expedition).

Previously known from Sinai, Egypt, Khartoum and Khor Arbaat delta in the Sudan. The Turkana specimens are somewhat smaller than the Sudanese, but not different otherwise.

***Platypterna* sp.**

Déserts du Turkana : Monts Murueris, Turkana Nord, 1 ♀.

This is probably a new species, but the female has only one somewhat deformed antenna and it would be unwise to describe it.

***Platypterna salfiana*, n. sp.**

(Fig. 3.)

Resembling *P. nubica* (Werner), but smaller ; the antennae shorter and more dilated ; hind knee lobes without a dark spot.

♀. Antennae shorter than head and pronotum together, strongly expanded in the basal third ; shape of joints as figured.

Fastigium of vertex short, semicircular, broader than long. Foveolae very shallow, punctured, curved.

Pronotum relatively short. Disc obtusely tectiform. Lateral keels callous, straight, gradually divergent backwards. Lateral lobes about as long as deep ; lower margin weakly sinuate.

Elytra extending by about one quarter of their length beyond the hind knees.

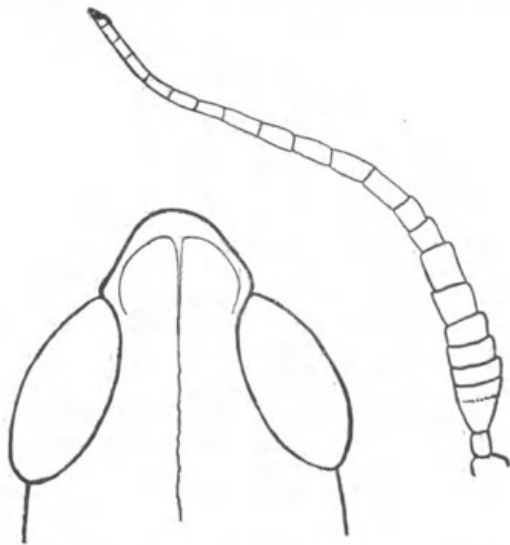


Fig. 3. *Platypterna salfiana*, sp. n. ♀.

Hind femur short and broad, practically without the filiform part.

General colouration dirty-buff, with a rusty tinge and numerous grey dots. Elytra grey, with some veinlets brown; a row of indefinite brown spots along the middle. Hind knee-lobes without a dark spot. Hind tibiae faintly bluish.

Total length 30; pronotum 5; elytra 24,5; hind femur 14 mm.

Déserts du Turkana : Lodwar, VI. 1934, 2 ♀♀ (one the type) (D. Buxton).

I am very pleased to dedicate this species to Dr. Mario SALFI, the author of a masterful monograph of the difficult genus *Platypterna*.

***Platypternodes savannae* Uvarov, 1926**

Plateau du Uasin Gishu : Kitale, 1 ♂, 2 ♀♀. Described from Northern Nigeria.

***Platypternodes* sp.**

Plaines de l'Omo : Nanoropus, 1 ♀.

Considerably larger in size than the preceding species and with the fastigium more narrowed forward. Possibly new, but more material would be necessary for the description.

***Platypternodes rudolfi*, n. sp.**

(Fig. 4.)

Differing from *P. savannae* by more slender habitus, longer antennae and narrower fastigium of vertex.

♂. Antennae considerably longer than head and pronotum together, expanded at the base; joints 4th and 5th transverse, 6th square, 7th and 8th fused into one elongate and moderately flattened joint, the rest rounded and punctured, at least twice as long as broad.

Head as long as pronotum, in profile distinctly ascending. Face rugulose. Frontal ridge in profile slightly concave below the antennae; surface sulcate, the sulcus weakly dilated between antennae. Lateral facial keels regularly and weakly curved. Fastigium of vertex twice as long as it is broad and more than half the length of the eye; margins parallel, apex rounded; median carinula distinct, gradually disappearing on the occiput; foveolae narrow, strongly defined, curved, almost reaching the apex of fastigium.

Pronotum narrow; upper surface slightly concave in longitudinal direction if viewed in profile. Lateral carinae weak in the prozona, obsolescent in the metazona, very slightly incurved. First sulcus indistinct; second placed a little in front of the middle; third well behind the middle. Disc punctured near the front margin and in the metazona. Lateral lobe trapezoidal, with the lower margin weakly sinuate.

Elytra reaching well beyond the hind knees. Hind femur without the filiform part.

Colouration stramineous, with indefinite brownish fasciae along the lateral

pronotal carinae, and two series of widely distant minute blackish dots midway between the median and the lateral carinae; both the fasciae and the dots continued on to the head, as well.

♀. Antennae as long as head and pronotum together. Fastigium of vertex distinctly longer than broad.

Length of body ♂ 23, ♀ 30; pronotum ♂ 5, ♀ 6; elytra ♂ 16, ♀ 21; hind femur ♂ 10, ♀ 14 mm.

Plaines de l'Omo : Bourillé (Bourié on the label), 1 ♂ (type), 1 ♀.

Déserts du Turkana : Lokitang, IV, 1934, 1 ♀ (D. Buxton).

It is possible that this species is related to *P. voltaensis* described by Sjöstedt (*Ark. Zool.*, 23A, n° 17, p. 23, 1931) from the Upper Volta, but the description does not contain a single character of specific value and cannot be used for determination.

***Roduniella insipida* (Karsch, 1896).**

1896. *Duronia insipida*, Karsch, Stett. Ent. Zeit., LVII, p. 252. — 1896. *Duronia duria*, Karsch, l. c., p. 252 (*syn. nov.*). — 1932. *Roduniella ugandae*, Miller, Trans. Ent. Soc. London, p. 21 (*syn. nov.*).

Mont Elgon : cultivated zone, 4-7,000 ft. III. 1934, 3 ♂♂, 4 ♀♀ (H. B. Johnston).

The above synonymy is established after a direct comparison of the types of all three species. The type of *D. insipida* is a female which agrees well with paratypic females of *R. ugandae*, except that it has a slightly shorter pronotum; lateral pronotal keels in the type of *D. insipida* are perfectly straight, but this character is variable in the paratypical series of *R. ugandae* and in the figure given by Miller the inflexion of the keels is exaggerated. The type of *D. duria* is a male quite similar to the male type of *R. ugandae*.

***Anablepia*¹ *brevis* n. g., n. sp.**

(Fig. 5.)

Allied to *A. granulata* Ramme, but smaller, with shorter antennae and elytra and continuous lateral pronotal carinae.

1. This is a new generic name proposed for the genus *Diablepia* I. Bolivar, 1914 (*nec Diablepia* Kirby, 1902) based on an insect misidentified by him as *Diablepia viridis* Kirby, but actually not congeneric with it.

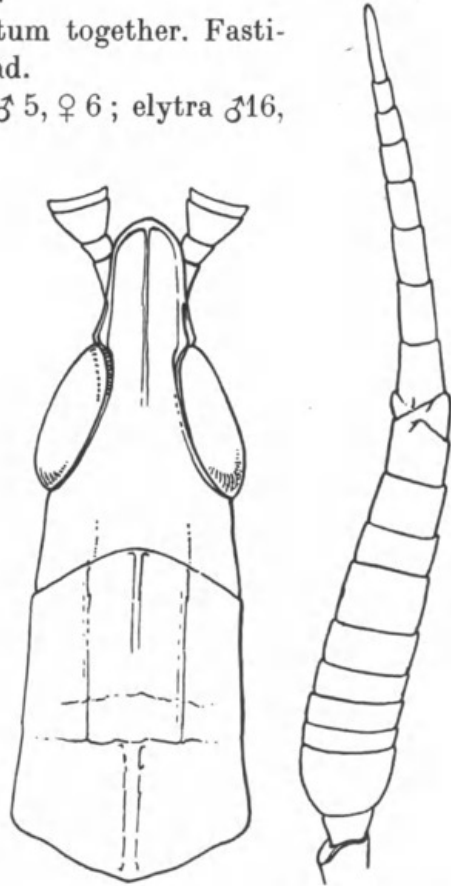


Fig. 4. *Platypternodes rudolfi*, sp. n. ♂.

♂. Antennae just reaching the base of hind femora, slightly dilated basally ; middle joints not twice as long as broad.

Face and cheeks with scattered small granules. Frontal ridge strongly dilated between the antennae where it is about twice as broad as under the ocellum. Fastigium of vertex acutely parabolic, half as long again as it is broad. Head above transversely rugulose, with a faint trace of the median carinula ; behind each eye there runs a series of small granules forming a continuation of lateral pronotal carinae.

Pronotum relatively short, obtusely angulate behind. Disc distinctly tectiform. All carinae sharp, the lateral ones very slightly wavy. Typical sulcus behind the middle. Lateral lobes trapezoidal, with scattered granules ; lower margin weakly sinuate.

Hind femur short ; elytron reaching well beyond its apex.

Colouration light green. Antennae blackish with the outer edge reddish-brown. Sides of the head, upper parts of lateral pronotal lobes and lower parts of the folded elytra reddish-brown. Hind wing infumate. Apex of hind femur and the base of hind tibia pinkish ; the rest of the tibia vinaceous. Pilosity scarce and short.

♀. Antennae shorter than head and pronotum together. Elytra just reaching the apex of the abdomen.

Length of body ♂ 17, ♀ 27 ; pronotum ♂ 3.5, ♀ 5.5 ; elytra ♂ 13, ♀ 17.5 ; hind femur ♂ 9, ♀ 12 mm.

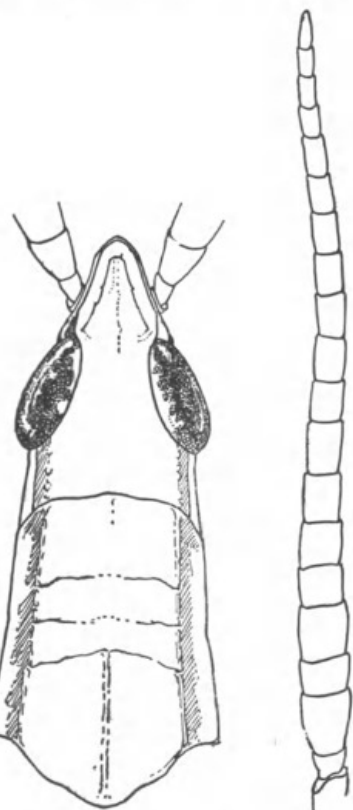


Fig. 5. *Anablepia brevis*,
n. g., n. sp., ♂.

Plateau du Uasin Gishu : Kitale, 3 ♂♂ (including the type), 4 ♀♀.

UGANDA : Hoima, 14. VI. 1933, 1 ♂ ; Wakyato, 3. VII. 1933, 2 ♂♂ ; Kepeka, 6. VII. 1933, 1 ♀ ; Buruli, 7. VII. 1933, 1 ♂ (H. B. Johnston ; British Museum).

This species may be close to *Anablepia elgonensis* recently described by Sjöstedt (*Ark. Zool.*, Bd. 26A, 1933, n° 11, p. 4), but seems to differ in the relatively shorter hind femora and in the female fastigium of vertex being longer than broad ; there may be other significant differences, but the description of *A. elgonensis* lacks some important points, while the photographic illustrations may apply to most species of the genus.

***Paracomacris stenopterus* (Schaum), 1853.**

Plateau du Uasin Gishu : Kitale, 2 ♂♂, 2 ♀♀.

Plaines de l'Omo : Nanoropus, 565 m., 1 ♀.

Déserts du Turkana : West Suk, Kapenguria, 7. II. 1934, 1 ♂, 1 ♀ (D. Buxton). Smaller than the typical form from S. E. Africa.

Paracomacris centralis Rehn, 1914

Mont Elgon : cultivation, 4-6.000 ft., forest. 7.000 ft. (H. B. Johnston).

Paracomacris elgonensis Uvarov

1930. *Paracomacris elgonensis* Uvarov, Ann. & Mag. Nat. Hist., ser., 10., vol. 5, p. 249.

1933. *Paracomacris loveni* Sjöstedt, Ark. Zool., Bd. 26 A, n° 11, p. 3 (*syn. nov.*).

Mont Elgon : bamboo zone, 10,000 ft. ; alpine zone, 11-13,000 ft. (H. B. Johnston).

A careful comparison of the type of *P. elgonensis* with paratypes of *P. loveni* failed to reveal any differences between them and they must be considered pure synonyms. The occurrence on the same mountain and in the same altitudinal zone of two very closely allied species is scarcely possible on theoretical grounds.

Gymnbothrus linea-alba I. Bolivar, 1889

Déserts du Turkana : West Suk, Kapenguria, 7. II. 1934, 1 ♀ (D. Buxton); Mont Kaitherin, IV. 1934, 2 ♀♀ (D. Buxton).

Gymnbothrus temporalis (Stål, 1876)

Mont Elgon : Camp I, 1 ♂ ; Camp II (Elgon saw-mill), 4 ♂♂.

Déserts du Turkana : West Suk, Kapenguria, 7. II. 1934, 1 ♂, 2 ♀♀ (D. Buxton).

The specimens from Elgon are of smaller size than the usual form of the African lowlands.

Gymnbothrus fallax (Karny, 1907)

Mont Elgon : Camp II (Elgon saw-mill), 1 ♂. Also a rather small specimen.

Aulacobothrus calcaratus Sjöstedt, 1933

Plateau du Uasin Gishu : Kitale, 9 ♂♂, 12 ♀♀.

Aulacobothrus aethiopicus (I. Bolivar, 1922) ?

Déserts du Turkana : West Suk, Kapenguria, 7. II. 1934, 2 ♂♂, 3 ♀♀ (D. Buxton).

Plateau de Uasin Gishu : Kitale, 4 ♀♀.

The specimens are somewhat larger than those recorded by me recently from mountains of Abyssinia (*Journ. Linn. Soc. Zool.*, XXXVIII, 1934, p. 604).

Aulacobothrus sp.

Déserts du Turkana : Lokitaung, 1 ♀.

Probably a new species, but a description from a single female would not be wise.

Pnorisa squalus (Stål, 1860)

1933. *Pnorisa montium* var. *elgonensis*, Sjöstedt, Ark. Zool., 26 A., n° 11, p. 9 (*syn. nov.*).

Plateau du Uasin Gishu : Kitale, 2 ♂♂, 1 ♀.

Mont Elgon : Camp I, 1 ♀.

There is no reason to separate the Elgon form of this species from that which is widely distributed in African grasslands.

Eleutherotheca sp.

Plateau du Uasin Gishu : Kitale, 1 ♀.

Determination from a single female is not possible.

Stenohippus aequus Uvarov, 1925

Déserts du Turkana : Lokitaung, 1 ♀ ; Komogin river, 5. III. 34, 1 ♂, 1 ♀ (D. Buxton).

Stenohippus aethiopicus, n. sp.

Very similar and closely allied to *S. xanthus* (KARNY 1907), but more robustly built, with less vertical foveolae and shorter pronotum, which is broader than long.

♂. Antennae slender, with the middle joints strongly elongate, reaching the base of hind femora.

Face less oblique than in *S. xanthus*. Frontal ridge broad from the ocellum up to the fastigium, rapidly becoming obsolete under the ocellum ; surface punctured, with a shallow sulcus and low raised margins. Fastigium of vertex less projecting forward than in *S. xanthus*, narrowly pentagonal with very acute apex ; surface deeply concave ; margins sharp. Foveolae of vertex about half again as long as they are wide, with the upper anterior angle rounded, and the lower margin not as strongly raised as the others but still quite distinct.

Pronotum short, rounded behind. Lateral carinae distinct (not merely indicated by pale lines) in front of the first sulcus, strongly converging towards it ; obsolete between the first and the second sulcus ; distinct and strongly divergent behind the second sulcus.

Elytra extending a little beyond the hind knees. Venation as in *S. xanthus* ; the interular area slightly broader than the discoidal and its cells are disposed more or less in two rows.

Hind femur somewhat more incrassate basally and more attenuate apically than in *S. xanthus*.

Colouration dirty brownish, with blackish and grey markings forming the pattern typical for the genus. Lateral pronotal keels dirty buff, surrounded with dark brown. Lateral pronotal lobes with a light callous spot in the metazona, with a brown one adjoining it from above. Elytra with a few cells margined with brown. Anterior and intermediate legs, especially tibiae, annulated with blackish colour. Posterior femora above with the typical pattern in brown, not very sharp; knee only spotted with brown. Posterior tibiae dirty bluish; the base with brown spots and followed by a pale buff ring. Abdomen pale yellow.

Length of body 12.5; pronotum 2; elytra 11; hind femur 8 mm.

Plaines de l'Omo : Bourillé (Bourié on the label), bord de la riv. Omo, 1 ♂ (type).

British Sudan : Talodi, VII. 1926, 1 ♀ (J. W. Cowland); X. 1926, 1 ♀ (W. Ruttledge).

Paracinema tricolor (Thunberg 1815)

Plaines de l'Omo : Nanoropus, 3 ♂♂, 1 ♀.

Calephorus venustus (Walker 1870)

Calephorus compressicornis auct. partim.

Déserts du Turkana : Ferguson Bay, lake Rudolf, IV. 1934, 12 ♂♂, 4 ♀♀ (D. Buxton); Central Island, 1 ♂, 1 ♀ (Lake Rudolf-Rift Valley Expedition).

The true *compressicornis* has been described from Bordeaux, and it is also known from Portugal and Spain. Specimens from Egypt, Senegal, French Sudan and Turkana desert all belong to a distinct species, differing from the European in longer antennae, frontal ridge projecting between antennae and therefore concave in profile, and by the lower valvae of the ovipositor more elongated and armed with a tooth. Since Walker's species has been based on specimens from Cairo, its name can be applied to this African species.

Jasomenia dimidiata, I. Bolivar, 1911

Plaines de l'Omo : Bourillé, 1 ♀.

The only female in the collection differs from the female in the British Museum (from N. Rhodesia) which is certainly typical, by slightly smaller size and by the greenish colour of the sides of body replaced by buff. The median light stripe on the pronotum is widened in the prozona, so that a semblance of the cruciform pattern is shaped. It is doubtful whether these differences have any taxonomic value.

Aiolopus affinis (I. Bolivar, 1902)

Déserts du Turkana : Lodwar, 1 ♂, 1 ♀; Kabua, 7. V. 1934, 1 ♂ (D. Buxton).

Aiolopus sp.

Mont Elgon : Camp II (« saw-mill »), 1 ♂.

A member of the group *thalassinus*, but its more exact determination is impossible without a thorough revision of the African species which are often referred to that species, but are certainly distinct.

Subfam. **Oedipodinae****Oedaleus senegalensis** Krauss, 1877

Déserts du Turkana : Monts Murueris, 800-1.000 m., 25 ♂♂, 16 ♀♀ ; Lodwar, VI. 1934, 2 ♂♂, 5 ♀♀ (D. Buxton) ; Ferguson Bay, IV. 1934, 1 ♀ (D. Buxton).

Oedaleus nigeriensis Uvarov, 1925

Déserts du Turkana : Moroto, VII. 1934, 3 ♂♂, 1 ♀ (D. Buxton).

Oedaleus citrinus Saussure 1888

Déserts du Turkana : Lokitaung, 1 ♂ ; Monts Murueris, 1 ♀ ; Moroto, VII. 1934 1 ♂ (D. Buxton) ; Kacheliba, V. 1934, 1 ♂ (D. Buxton).

Gastrimargus Volkensi Sjöstedt, 1928

Déserts du Turkana : Lodwar, VI. 1934, 1 ♀ (D. Buxton).

Humbe tenuicornis Schaum, 1853

Déserts du Turkana : Moroto, VII. 1934, 2 ♂♂, 2 ♀♀ (D. Buxton) ; Napau escarpment, 25. V. 1934, 1 ♀ (D. Buxton).

Scintharista notabilis Brunneri Saussure, 1884

Déserts du Turkana : Lokitaung, IV. 1934, 1 ♂ (D. Buxton).

Locusta migratoria migratorioides (Reiche et Fairmaire, 1847)

Déserts du Turkana : Various localities (D. R. Buxton).

Pycnodietya Galinieri Reiche et Fairmaire, 1847.

Déserts du Turkana : Lokitaung, IV. 1934, 2 ♂♂, 1 larva (D. Buxton) ; West Suk, 1.200 m., 1 ♂.

Pycnodietya dimorpha turkanae, sbsp. n.

Closely allied to *P. dimorpha* Uvarov 1930 from British Somaliland, but differs from it in the following characters which are probably of subspecific value.

Head and pronotum more rugose ; median carina of the latter less raised, in the male almost straight in profile. Elytra relatively shorter ; reticulation

in the basal half less dense; reticulation immediately beyond the apex of discoidal area is practically normal, without the anostomosing veinlets (which are present if not well developed in the typical form). Basal portion of the male wing of a lighter shade of red (not vermillion); fascia narrower, in the female evanescent, in both sexes not reaching the inner margin; basal part of female wing very pale yellow; apical part of wings without spots. Inner side of the hind femur with only one light fascia.

Length of body ♂ 22, ♀ 38; pronotum ♂ 6, ♀ 9.5; elytra ♂ 21, ♀ 30; hind femur ♂ 14, ♀ 20 mm.

Déserts du Turkana: Napau escarpment, 28. V. 1934, 2 ♂♂ (including the type), 1 ♀, 1 larva ♀ (D. Buxton).

***Morphacris fasciata sulcata* (Thunberg 1815)**

Déserts du Turkana: Lokitang, IV. 1934, 5 ♂♂, 3 ♀♀ (D. Buxton).

***Heteropternis coulouana* (Saussure 1884)**

Massif du Marakwet: Chip Cherangani, 3 ♂♂, 1 ♀.

Chaîne de l'Aberdare: Maison forestière du Kinangop, 2.600 m., 1 ♀.

Pays Kikuyu: Thika Falls, 1 ♀.

Plateau du Uasin Gishu: Sergoit, 1 ♀.

Mont Elgon: Butandiga to Bilembul, 4 ♂♂; 1 ♀: Buwalasi, 5.000 ft., 1 ♀ (H. B. Johnston).

***Trilophidia* sp.**

Mont Elgon: Camp I, 2.210 m., 1 ♂.

***Acrotylus patruelis* (Herrich-Schaeffer 1838)**

Pays Kikuyu: Kijabe, 2.100 m., 1 ♂.

***Acrotylus longipes incarnatus* Krauss, 1901**

Déserts du Turkana: Lodwar; Pelekelch Mts., (D. Buxton); Lokitang. 1 ♂.
Described from Socotra and known to me from S. Arabia.

***Acrotylus variegatus* Brancsik, 1893**

Déserts du Turkana: Moroto (D. Buxton).

***Acrotylus elgonensis* Sjöstedt, 1833**

Déserts du Turkana: Moroto, VII. 1934, 1 ♂, 2 ♀♀ (D. Buxton).

Mont Elgon: Buwalasi, 5.000 ft., III. 1934, 1 ♂, 2 ♀♀ (H. B. Johnston).

***Sphingonotus Savignyi* Saussure, 1884**

Déserts du Turkana: Komagin river; Lodwar; Ferguson Bay; Kavuma district (D. Buxton); Lokitaung, 2 ♀♀.

***Sphingonotus canariensis* Saussure, 1884**

Déserts du Turkana : Monts Murueris, 2 ♂♂, 1 ♀; Lokitaung, 6 ♂♂, 1 ♀; Komogin R., 5. III. 1934, 3 ♂♂, 2 ♀♀ (D. Buxton); Peleketch Mts., IV. 1934, 1 ♀ (D. Buxton); Lodwar, IV. 34, 1 ♂ (D. Buxton).

***Sphingonotus rubescens* (Walker, 1870)**

Déserts du Turkana : Lodwar; Lokitaung; Kakuma district; Peleketch Mts., (D. Buxton); Mts Murueris, 1 ♀; Central Island, lake Rudolf, 1 ♂, 1 ♀ (Lake Rudolf-Rift Valley Expedition).

***Sphingonotus turkanae*, n. sp.**

(Fig. 6.)

Similar to *S. mecheriae* Krauss, but differing in the shape of the lower margin of pronotal lobes; in the crenate anterior margin of pronotum, and in its longer and angular metazona.

♂. Antennae much longer than head and pronotum together.

Face practically vertical. Frontal ridge wavy in profile, strongly sulcate throughout, with a particularly deep depression between antennae; margins well raised throughout, reaching the clypeus. Lateral facial keels well raised, strongly curved. Fastigium of vertex strongly sloping, transverse; surface deeply concave, with a median carinula dividing the concavity into two oval pits, which are separated from the vertex proper by a parabolic carinula. Occiput sloping strongly towards the pronotum, with some rugosities.

Pronotum distinctly sellate. Anterior margin crenate and with a trapezoidal projection in the middle. Median carina well raised and tectiform in front of the first sulcus, obsolete between the sulci, well raised but irregular in the metazona. Lateral carina represented by short ridge-like tubercle in front of the submarginal sulcus and by small rounded tubercles between the next two sulci, obsolete between the second and the third sulcus, distinctly raised and thickly callous in metazona, but obsolescent towards its posterior margin. All sulci deep; the submarginal one also well developed; surface of metazona with some irregular rugosities, deeply concave between shoulders; its length double that of the prozona. Posterior angle a little more than 90°; its margins practically straight, weakly undulating. Lateral lobe higher than long; anterior margin bisinuate; anterior angle obtuse, rounded; lower margin strongly oblique, weakly sinuate; lower posterior angle attenuate into an acute lobe; posterior margin almost vertical, slightly wavy.

Mesosternal interspace less than three times as broad as long. Metasternal interspace about half again as broad as long.

Elytra reaching almost the apex of extended hind tibiae. Venation normal; false vein in the discoidal area weakly sinuate, somewhat approaching the radial vein distally. Wings normal; radial veins weakly incrassate; the ratio of length to width is 10 : 18, i. e. the wings are relatively very narrow.

Hind femur distinctly broad ; upper carina raised and somewhat suddenly depressed before the knee.

Supraanal plate trapezoidal, with acutely produced hind angles and a triangular median projection ; its surface concave, with two subbasal and a median acute tubercle directed backwards. Cercus relatively large, much longer than the supraanal plate, distinctly compressed laterally and curved.

General colouration ochreous-brownish, with chocolate-brown pattern. Antennae annulate with brown and light-buff. Fastigium of frons with a scarcely distinct dark transverse fascia. Pronotum mottled with black and

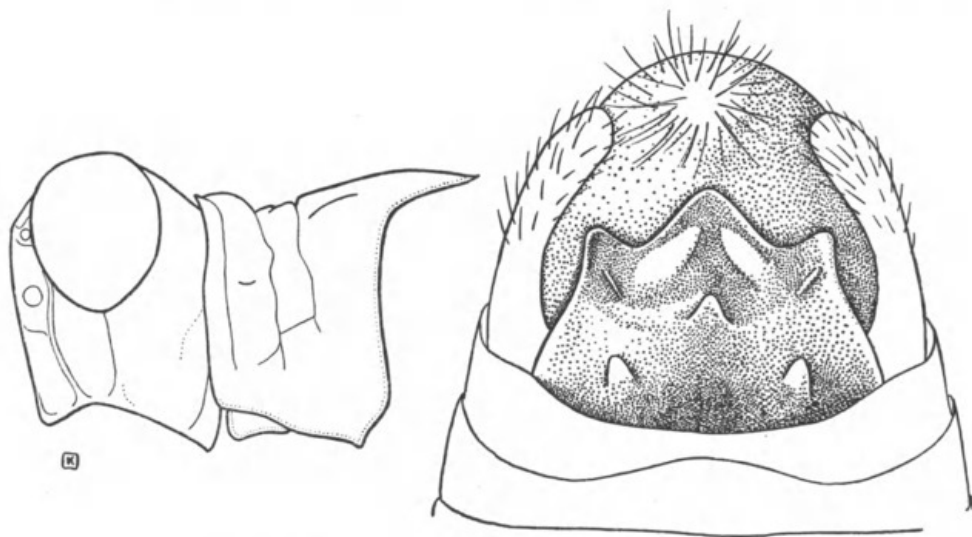


Fig. 6. *Sphingonotus turkanae*, sp. n., ♂.

dark-brown ; shoulders with incomplete whitish x-shaped pattern. Elytra with a chocolate brown post-basal fascia, and a complete median fascia ; apical part with fairly large brownish spots. Wings faintly bluish basally. Hind femur internally brown in more than the basal half, and with a complete black fascia in the pale apical part. Hind tibiae dirty-white, with a trace of dark post-basal fascia.

♀. Mesosternal interspace a little more than twice as broad as long.

Length of body ♂ 18, ♀ 22 ; pronotum ♂ 3,5, ♀ 4,5 ; elytra ♂ 19, ♀ 24 ; hind femur ♂ 10,5, ♀ 12 mm.

Déserts du Turkana : Komogin River, 31. III. 1934, 1 ♂, type (D. Buxton) ; Lokitaung, 2 ♂♂, 2 ♀♀.

Plaines de l'Homo : Bourillé, 2 ♀♀.

Although this curious new species resembles superficially *S. mecheriae* Kr., it is actually more closely allied to *Vosseleriana somali* (Uvarov 1923 ; see Konowia, II, p. 2 ; and Bull. Min. Agr. Cairo, n° 41, 1924), particularly as regards the structure of head and pronotum. Moreover, the supraanal plate and cerci of the male in *V. somali* (of which I have now received males, hitherto

unknown) are of the same type as described above for *S. turkanae* and very distinct from the ordinary non-specialised structure found in *Sphingonotus* generally. On the other hand, *S. turkanae* differs from *V. somali* in having narrow hind wings, while in the latter they are extremely wide, and with regularly disposed veinlets between strongly incrassate radial veins. In view of the obviously close relationship between *S. turkanae* and *Vosseleriana somali* it appears that the genus *Vosseleriana* may have to be regarded as a synonym of *Sphingonotus*, the peculiar shape and venation of hind wings in *V. somali* being only a specific character but I prefer to reserve a decision.

Subfam. Pamphaginae

Lamarckiana sp.

Déserts du Turkana : Mont Longendo, 1 ♂ (D. Buxton).

Specific determinations in this genus are practically impossible in the present state of our knowledge.

Subfam. Pyrgomorphinae

Chrotogonus sp.

Déserts du Turkana : Lokitaung ; Kakuma district (D. Buxton).

Species of this genus cannot be determined with any degree of certainty.

Tapesia grisea intermedia Sjöstedt, 1923

Plateau du Uasin Gishu : Kitale, 4 ♂♂.

Mont Elgon : Camp I, 2,400 m., 1 ♂.

Maura flavifrons I. Bolivar, 1895

Déserts du Turkana : Moroto, VII. 1934, 1 ♂, 1 ♀ (D. Buxton).

The species is strongly dimorphic, the male having short elytra, yellow face and round yellowish spots on the mesopleura, while in the female the elytra reach the hind knees, the face is uniformly coloured, and the pleural spots absent.

Zonocerus variegatus (Linné 1758)

Déserts du Turkana : Moroto, VII. 1934, 1 ♂ (D. Buxton).

Taphronota calliparea (Schaum 1853)

Rift Valley : Maji ya Moto, 1 ♂.

The specimen has hind femora not spotted with black along the lower sulcus and may therefore be referred to var. *immaculata* Sjöstedt 1929.

Phymateus viridipes (Stål 1873)

Rift Valley : Kikuya escarpment, 1 ♂, 1 ♀.

Phymateus purpurascens Karsch, 1896

Rift Valley : Kikuya escarpment, 1 ♂, 1 ♀.

Plateau du Uasin Gishu : Kitale, 2 ♀♀.

Chaîne de l'Aberdare : Maison forestière du Kinangop, 1 ♀.

Atractomorpha Gerstaeckeri I. Bolivar, 1884

Déserts du Turkana : Kacheliba, 1 ♀.

Atractomorpha Aurivillii I. Bolivar, 1884

Plaines de l'Omo : Nanoropus, 1 ♀ : Bourillé, 1 ♂.

Pyrgomorpha spp.

A number of specimens from several localities, but there is no point in recording them more exactly, since determinations of species in this genus cannot be reliable owing to the absence of recent monographs.

Parasphena elgonensis Sjöstedt, 1933

(Fig. 7. E.)

Mont Elgon : Heath zone, 10. 500-11. 500 ft., II. 1935, numerous specimens (F. W. Edwards) ; Camp III de l'Elgon, zone des bruyères, 3.500 m., 1 ♂, 4 ♀♀.

Parasphena cheranganica, n. sp.

(Fig. 7. C.).

Closely allied to *P. elgonensis* Sj., differing from it in the more uniform colouration, but particularly in the shape of the male supraanal plate.

♂. Antennae thick, not longer than head and pronotum together.

Frontal ridge narrowly sulcate, except close to the clypeus, where it is obsolescent. Fastigium of vertex parabolic, a little shorter than its width at the base ; sides curved, distinctly divergent backwards. Median carinula distinct both on the vertex and the occiput. Upper surface of head wrinkled. Cheeks with a series of callous tubercles.

Pronotal disc with shallow punctures. First transverse sulcus obsolete on the disc ; second placed behind the middle of pronotum ; third (typical) at three quarters of its length. Median carina scarcely perceptible as a smooth line. Lateral carinae represented by hardly perceptible smooth lines ; they are parallel in front of the second sulcus and slightly divergent behind it. Posterior margin with an obtuse excision, the sides of which are broadly convex. Both mesonotum and metanotum longer than metazona of pronotum, practically smooth, with a few shallow punctures.

Prosternum with a low tubercle. Mesosternal lobes a little longer than broad ; their interspace narrower than a lobe.

Elytra and wings absent.

Last tergite broadly emarginate. Supraanal plate triangular, almost as broad as long. Cercus conical, a little shorter than the supraanal plate. Subgenital plate obtuse.

General colouration olive green. Antennae black, with the base reddish.

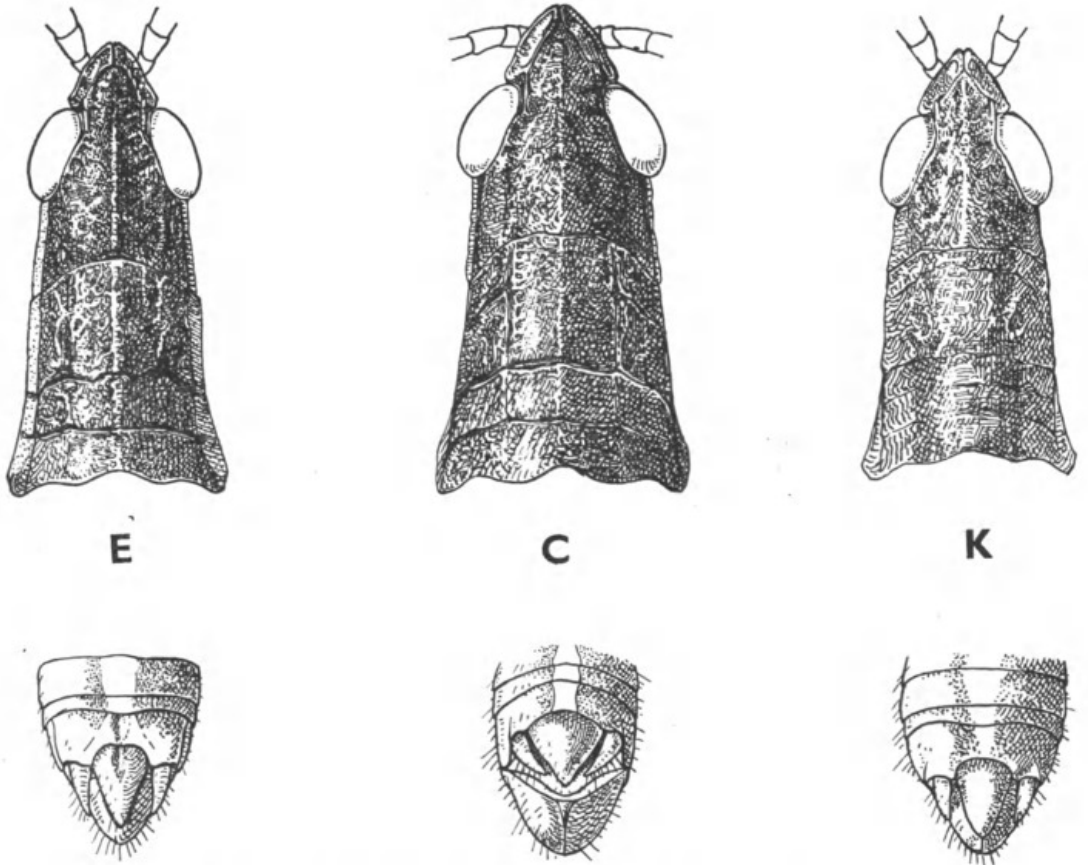


Fig. 7. E, *Parasphena elgonensis* Sj., ♂; C. *P. cheranganica*, sp. n., ♂; K, *P. kinangopa*, sp. n., ♂.

Sides of fastigium, hind margin of pronotum and hind tibiae red. Abdomen with a yellowish median stripe.

Length of body ♂ 16, ♀ 21; pronotum ♂ 3, ♀ 4; hind femur ♂ 9, ♀ 10 mm.

Massif du Marakwet: Chip Cherangani, 3,500 m., 1 ♂ (type), 3 ♀♀; Campi Cherangani, 3,000 m., 1 ♂, 2 ♀♀; Elgeyo Escarpment, 2,500 m., 2 ♂♂, 1 ♀.

***Parasphena kinangopa*, n. sp.**

(Fig. 7, K.).

A small apterous species with rather robustly built and depressed body, very weakly sculptured.

♂. Antennae thick, shorter than head and pronotum together.

Frontal ridge compressed and deeply sulcate above the ocellum, obsolescent and shallowly sulcate below it; viewed in profile broadly concave. Fastigium of vertex parabolic, as long as broad basally; sides distinctly convex, divergent. Median carinula distinct both on the vertex and the occiput. Upper surface of head strongly wrinkled. Cheeks with only some weak wrinkles instead of the usual series of tubercles.

Pronotal disc shiny, with fairly dense and large, but shallow, punctures. First transverse sulcus obsolete on the disc; second placed behind the middle; third at about four fifths of the length. Median carina practically absent. Lateral carinae faintly indicated, irregular. Posterior margin with a very obtuse excision, the sides of which are practically straight. Visible part of mesonotum as long as the metazona of pronotum, smooth, with a few faint punctures. Metanotum twice the length of mesonotum, with some weak punctures.

Prosternal tubercle damaged; apparently low. Mesosternal lobes a little longer than broad; their interspace square, considerably broader than a lobe.

Elytra and wings absent.

Last tergite with a fairly deep parabolic excision. Supraanal plate triangular, longer than wide. Cercus distinctly shorter than the plate, somewhat incurved.

General colouration olive-green. Antennae black, except the red base. Following parts also red, or suffused with that colour: sides of fastigium; anterior and posterior margins of pronotum; its lateral carinae; anterior and intermediate legs, particularly on the inner side; posterior tibiae. Abdomen with a faint yellowish median stripe; apex slightly reddish.

Total length 13; pronotum 2.3; hind femur 7 mm.,

Chaîne de l'Aberdare: Maison forestière de Kinangop, 2,600 m., 1 ♂ (type); W. Aberdare, 10-11,000 ft., XI, 1934, 1 ♂, 4 ♀♀ (A. J. F. Gedyé). Mt. Kinangop, 8-13,000 ft., 29-31. X. 1934, 4 ♀♀ (J. Ford).

Subfam. **Catantopinae**

Gen. **KINANGOPA**, nov.

Somewhat similar to *Acaeropa* Uvarov 1927, but strongly different from it in being completely apterous, in the highly peculiar structure of the male subgenital plate and many other features.

Antennae moderately long, somewhat expanded basally,

Face very strongly oblique. Frontal ridge below the ocellum obsolete, above it broad, shallowly sulcate, narrowed towards fastigium. Fastigium of vertex horizontal, forming an acute angle with the frontal ridge; strongly prominent and acute as in a Pyrgomorphine genus. Vertex weakly carinate.

Pronotum with the disc somewhat convex, intersected by the second and third sulcus; median carina very weak; lateral ones more distinct; posterior

margin obtusely excised. Lateral lobes vertical, longer than deep; lower margin strongly sinuate.

Prosternal tubercle small, conical. Mesosternal lobes weakly transverse, with the inner margins rounded; their interspace in the male narrower, in the

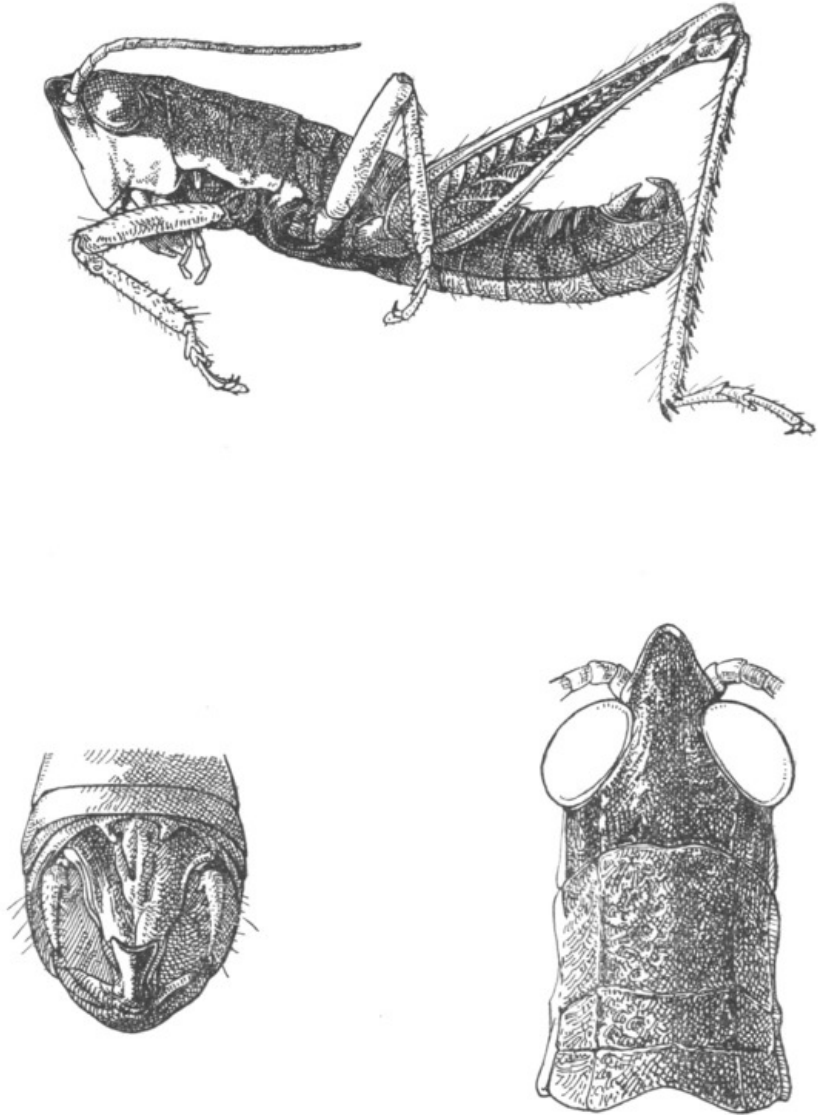


Fig. 8. *Kinangopa Jeanneli*, g. et. sp. n., ♂.

female broader, than a lobe. Metasternal intespace in the male narrow, in the female transverse; in both sexes, but particularly in the male, the metasternal pits are large.

Anterior femora in the male somewhat incrassate. Arolia of all tarsi very large. Posterior femora slender, not dentate. Posterior tibia with 6 external and 8 internal spines, not counting the apical spines which are present on both sides.

Last tergite of male with a furcula; supraanal plate elongate; cerci ordinary, somewhat incurved; subgenital plate large, with a recurved and bifid apical appendage. Valvae of the female ovipositor straight, narrow, minutely serrulate, but without basal teeth.

Kinangopa Jeanneli, n. sp.

(Fig. 8).

♂. Antennae distinctly longer than head and pronotum together, flattened in more than the basal half and somewhat expanded in the basal third.

Face smooth, with a few fine punctures. Frontal ridge shallowly concave above the ocellum. Fastigium of vertex narrowly parabolic, longer than at the base wide; apex acutangular, rounded; surface rugose, with a median and two submedian carinulae; margins smooth, slightly raised. Vertex and occiput rugulose.

Pronotal disc rugulose. First sulcus obsolete; second a little behind the middle; third at four fifths of the length. Lateral lobes shiny, with low rugosities; metazona more densely rugulose; lower margin callous. Mesonotum nearly twice as long as metazona of pronotum; metanotum a little longer than mesonotum; both rugose.

Last tergite with a furcula formed by a pair of small finger-like appendages directed towards each other. Supraanal plate much longer than wide; sides subparallel, slightly convex; apex with attenuate ligular appendage; surface with median sulcus. Cercus narrowly conical, slightly incurved, as long as the supraanal plate. Subgenital plate large, somewhat inflated; its apex bears a narrow appendage bending forward over the supraanal plate and forked apically into two short triangular branches.

General colouration olivaceous-green. Antennae reddish brown, darker apically. Face and cheeks reddish-white. Top of the head and upper half of cheeks olivaceous, with a pale line behind the eyes. Pronotal disc olivaceous; lateral lobes castaneous, with the lower callous margin ivory white. Pleurae and sides of the first tergite with ivory white markings. Abdomen mostly reddish-brown; mesonotum and metanotum olivaceous in the middle. Legs olivaceous, except the upper face of hind femur which is brownish; semilunar spots of hind knees black on both sides.

♀. Antennae shorter than head and thorax, distinctly dilated basally. Fastigium of vertex slightly broader than long, but the apex acute.

General colouration light castaneous. Face with black punctures. Sides of fastigium, cheeks, lateral pronotal lobes (except imperfectly defined ivory white lower margin), pleurae and sides of abdomen covered by an interrupted blackish-castaneous band.

Length of body ♂ 15, ♀ 18; pronotum ♂ 3, ♀ 4.; hind femur ♂ 8, ♀ 9 mm.

Chaîne de l'Aberdare: Maison forestière du Kinangop, 2.600 m., 1 ♂ (type), 1 ♀.

This is a very remarkable insect, resembling superficially a Pyrgomorphine genus. The female is rather similar in its general habitus to the South Indian *Acaeropa*, but that genus is very distinct in many characters. Male genitalia are of distinctly Catantopine type, with the subgenital plate of quite unique shape.

Mesopsera filum (I. Bolivar, 1890)

Déserts du Turkana : West Suk, Kapenguria, 7. II. 1934, 2 ♂♂, 1 ♀ (D. Buxton).

Plateau du Uasin Gishu : Kitale, 4 ♂♂, 3 ♀♀, 1 larva ♀.

Caloptenopsis elgonensis Sjöstedt, 1933

Mont Elgon : Camp I, 2 ♀♀.

This is probably only a subspecies of *C. ferrifer* (Walker).

Caloptenopsis sp.

Déserts du Turkana : Lokitaung, 1 ♀.

A large species similar to *calcaratus* St., but impossible to determine more exactly.

Platyphymus granulatus Uvarov, 1922

Massif du Marakwet : Campi Cherangani, 1 ♂, 4 ♀♀.

Plateau du Uasin Gishu : Kitale, 1 ♂, 1 ♀.

Déserts du Turkana : West Suk, Kapenguria, 7. II. 1934, 1 ♂, 1 ♀. (D. Buxton).

The Marakwet specimens have somewhat longer elytra and less brightly coloured red hind legs.

Oxyaeida Carli I. Bolivar, 1914

1914. *Oxyaeida carli*, I. Bolivar, Trab. Mus. Nac. Sci. Nat. Madrid, Zool., n° 20, p. 13. — 1933. *Catantops semialatus*, Sjöstedt, Ark. Zool., 26 A, n° 11, p. 20 (*syn. nov.*).

Plateau du Uasin Gishu : Kitale, 1 ♂.

The figure of *C. semialatus* leaves no doubt that it is not a *Catantops*, and the specimen before me agrees perfectly with its description, as well as with that of *Oxyaeida carli*, which suggests the above synonymy.

Euprepocnemis brachyptera Sjöstedt, 1933

Mont Elgon : Heath zone 10. 500-11. 500 ft., II. 1935, 1 ♂, 1 ♀, 3 larvae (F. W. Edwards).

Cardenius guttatus Uvarov, 1922

Déserts du Turkana : West Suk, Kapenguria, 7. II. 1934, 1 ♂, 1 ♀ (D. Buxton).

Plateau du Uasin Gishu : Kitale, 1 ♂, 1 ♀.

Catantopsilus taeniolatus Karsch, 1893, sbsp. ?

Plateau du Uasin Gishu : Kitale, 1 ♂.

A very slender and pale specimen which represents probably an undescribed subspecies of *C. taeniolatus*, close to sbsp. *elongatus* Ramme. More material is necessary to decide whether this is a sufficiently constant form.

Stenocrobylus sp.

Plaines de l'Omo : Bourillé, 1 ♀.

A species close to *S. crassus* Miller, but exact determination impossible from a single female.

Catantops dubiosus Sjöstedt, 1931

Mont Elgon : Camp I, 1 ♂.

Plateau du Uasin Gishu : Kitale, 2 ♀♀.

This species has been characterised only by its size, and by the figures of cercus and hind femur, in which respects it does not seem to differ from *C. kissenjanus* Rehn and *C. Glauningi* Ramme. The specimen before me seems to agree with the meagre description.

Catantops melanostictus Schaum, 1853

Plaines de l'Omo : Bourillé, 1 ♂.

Catantops saucius (Burmeister, 1838)

Plaines de l'Omo : Bourillé, 1 ♂.

Déserts du Turkana : Lodwar, VI, 1934, 1 ♀; Lokitaung, IV, 1934, 1 ♀ (D. Buxton).

Catantops praemonstrator Karsch, 1893

Déserts du Turkana : Kacheliba, 19. II. 1934, 2 ♂♂, 1 ♀ (D. Buxton); V. 1934, 2 ♂♂ (D. Buxton); West Suk, 2 ♀♀.

The specimens are somewhat smaller than the typical (West African), but otherwise not different from them.

Catantops adustus (Walker, 1870)

Déserts du Turkana : Kacheliba, V. 1934, 1 ♀ (D. Buxton).

Catantops lobipennis Sjöstedt, 1933

Mont Elgon : Bamboo zone, 9-10.000 ft., III. 1934, 5 ♂♂, 4 ♀♀ (H. B. Johnston); heath zone, 10.500-11.500 ft., III. 1935, 9 ♂♂, 15 ♀♀ (F. W. Edwards); Camp III, zone des bruyères, 3.500 m., 1 ♂, 5 ♀♀.

The specimens from the lower elevations are on the whole larger in size and darker in colouration.

Catantops lobipennis sbsp. ?

Massif du Marakwet : Elgeyo escarpment, 2,500 m., 1 ♂.

This single male from Marakwet is a little smaller than any of the Elgon males, and decidedly paler in colour. If these characters prove to be constant, the Marakwet form may have to be regarded as a distinct subspecies.

Eucoptacra Gowdeyi Uvarov, 1923

Déserts du Turkana : West Suk, Kapenguria, 7. III. 1934, 2 ♂♂ (C. Buxton).

Abisares depressus, n. sp.

(Fig. 9).

Very similar to the only known species of the genus, *A. viridipennis* Stål, but the pronotum without a laminate crest.

♀. Antennae much longer than head and pronotum together,

Frontal ridge of the same shape as in *A. viridipennis*, but smooth, with

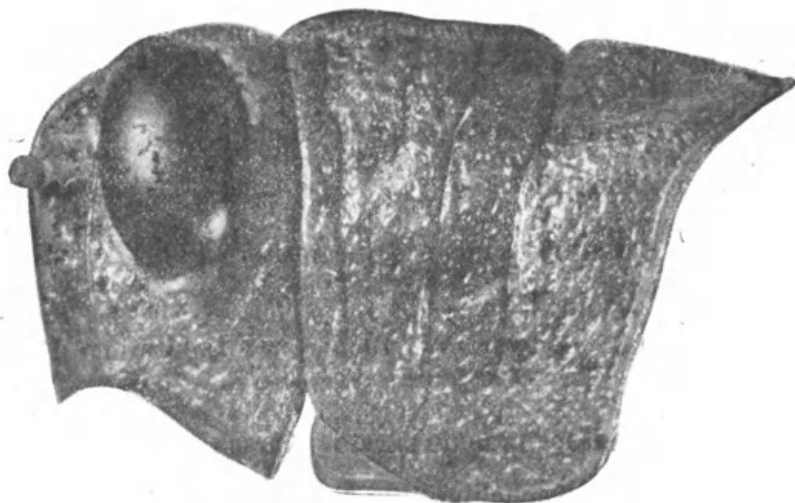


Fig. 9. *Abisares depressus*, n. sp., ♀.

small scattered punctures. Fastigium of vertex with a shallow pentagonal depression in the middle, the surface of which is practically smooth. Vertex with a short median carina.

Pronotum very similar in shape to that in *A. viridipennis*, but without a raised laminate crest, the prozona being simply inflated. Median carina low and thick in prozona, somewhat tectiform in metazona. Transverse sulci distinct, but not deep; the typical sulcus somewhat behind the middle. Anterior margin not angulate in the middle as it is in *A. viridipennis*; posterior margin more broadly rounded than in that species. Whole surface is less densely and not so deeply punctured.

Prosternal tubercle slightly inclined forwards, conical, constricted at the

base. Sternum rather densely, but shallowly, punctured. Mesosternal lobes subtransverse, rounded-trapezoidal, inner margins rounded; posterior margin oblique; interspace much narrower than a lobe, strongly widened behind.

General colouration greyish-buff, mottled with grey and brown. Antennae blackish, with three apical joints whitish. Wings faintly bluish. Hind femur with faint dark fasciae above. Hind tibia light ashy-grey above, ivory-yellow underneath; spines light yellow, with broad black tips.

Length of body 35; pronotum 7.5; elytra 34; hind femur 19 mm.

Déserts du Turkana: Lokitaung, IV. 1934, 1 ♀ (D. Buxton).

***Ischnansis curvicerca*, n. sp.**

(Fig. 10, C.).

Closely allied to the genotype, *I. insitiva* Karsch 1896, differing from it by longer antennae, more strongly prominent eyes, more slender pronotum, but particularly by the structure of male genitalia.

♂. Antennae much longer than head and pronotum together, somewhat

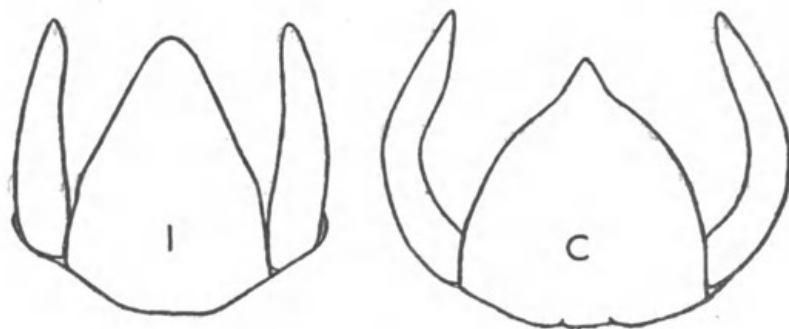


Fig. 10. *Ischnansis insitiva* Karsch (I) and *I. curvicerca* n. sp. (C). End of abdomen, ♂.

flattened near the apex which is also sinuate. Face strongly oblique. Frontal ridge broadly sulcate almost throughout; seen in profile it is convex above the antennae, and broadly concave below them. Fastigium of vertex well projecting forward; its maximum width less than twice that of antennae; the concave surface rugulose, distinctly longer than wide (in *I. insitiva* wider than long). Vertex between the eyes very narrow, indistinctly sulcate.

Pronotum rounded, slender, subsellate. Metazona a little shorter than prozona, somewhat broader than long, rugulose.

Prosternal tubercle inclined backwards, obtuse.

Elytra reaching, a little beyond the hind knees, narrow, with fairly thick veins and veinlets forming longitudinally extended cells. Wings narrow, with acutely parabolic apex.

Last abdominal tergite with a pair of submedian spine-like projections. Supraanal plate broad, oval, with attenuated apex. Cercus longer than su-

praanal plate, strongly incruved, laterally compressed in the apical half. Subgenital plate small, obtuse.

General colouration brownish-grey, mottled with dark brown. Elytra with longitudinal dark streaks. Posterior edge of the last abdominal tergite, supranal plate and the cercus inside are shiny blackish-brown. Wings with some smoky spots at the apex. Hind femur with indefinite dark fasciae. Hind tibia dirty brownish, hairy.

Length of body 20 ; pronotum 3,5 ; elytra 17,5 ; hind femur 13 mm.

Déserts du Turkana : Komogin river, 5.III. 1934, 1 ♂ (D. Buxton).

This species is abundantly distinct from *I. insitiva* (fig. 10, I), of which I have studied the type kindly sent to me by Dr. W. Ramme. It is not clear, however, whether it is not identical with *I. gracilis* (Schulthess 1898) which has been described very briefly and only from the female sex (see Ramme, Mitt. Zool. Mus. Berlin, 15 Bd., 1929, p. 458).

***Acanthacris ruficornis fulva* (Sjöstedt, 1909)**

Pays Kikuyu : Kijabe, 1 ♂.

Mont Elgon : Cratère de l'Elgon, pied du pic Koitobbos, 4.000 m., 1 ♀.

The female found at such a high altitude has almost certainly been carried there by wind.

***Cyrtacanthacris tatarica* (Linné, 1758)**

Déserts du Turkana : Lodwar, VI. 1934, ; Kacheliba, V. 1934, (D. Buxton).



Uvarov, B. P. 1938. "Mission Scientifique de l'Omo. Tome IV. Fascicule 35 : Orthoptera. III. Acrididae." *Mémoires du Muséum national d'histoire naturelle* 8(1), 145–176.

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