

CORYNDON MEMORIAL MUSEUM EXPEDITION TO  
THE CHYULU HILLS, 1938.

VIII.

GRASSHOPPERS (ORTHOPTERA, ACRIDIDAE).

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by V. G. L. VAN SOMEREN, F.R.E.S., etc.

The collection of grasshoppers made in the Chyulu Hills proved to contain 36 species, five of them being indeterminable at present, and one new to science. The material at hand is insufficient for drawing bigeographical conclusions, except that the majority of the species found in the Chyulu Hills are known to occur mainly in the East African uplands, there being a clearly indicated affinity of the Chyulu fauna with that of Kilimanjaro, in particular.\*

The new species of *THISOICETRUS* may be endemic to the Chyulu Hills, but further collecting in East Africa is necessary before this can be definitely stated.

A representative series of specimens has been retained for the British Museum (Natural History), and the remainder is deposited in the Coryndon Museum, Nairobi.

*ACRIDA SULPHURIPENNIS* (Gerstaecker, 1869).

June, 2,800 ft., 3 ♂♂; 3,000 ft., 1 ♂

(Fairly common in the grasslands of the lower altitudes; not recorded from the upper moorland.)

*ACRIDELLA*, sp.

April, 5,200 ft., 1 ♂; June, 2,800 ft., 1 ♀.

This is the species usually recorded from Tropical Africa under the name *A. nasuta* (Linné), which species it resembles very closely in general appearance and colouration. There are however, important structural differences between the Mediterranean specimens of the true *A. nasuta* and the tropical ones and the latter must be regarded as a distinct species.

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\* Sir Guy Marshall, when reporting on the Weevils, suggests that the Chyulu fauna is derived from the north-east Kenya highlands rather than from Kilimanjaro. We have since noted that the Orthoptera of the Emali range, to the north-west of the Chyulus, are very similar in character.

It is not improbable that this species has been described by one of the older authors, e.g. Thunberg, but this cannot be decided without re-examination of types. The present material is, of course, insufficient for describing the species as new.

(The transverse pigmented bars between the veins is a conspicuous feature when the insect is in flight.)

*CANNULA*, sp.

April, 5,200 ft., 1 larva. (No others were noted and the insect was scarce at the higher elevation; though plentiful on the Kibwezi plains they were not taken.)

*MESOPSIS LATICORNIS* (Krauss, 1877).

June, 2,400 ft., 1 ♂. (Taken in the long grass on the Noka Track Dam: not seen at higher altitudes.)

*DURONIA TRICOLOR*, Karny, 1907.

June, 2,800 ft., 9 ♂♂, 4 ♀♀. (Seen only at the lower altitudes at the south end of the range and along the Noka Track.)

*LOBOPOMA AMBAGES*, Karsch, 1896.

March, 5,600 ft., 1 ♀; April, 5,200-5,400, 1 ♂, 3 ♀♀; June, 5,600 ft., 2 ♀♀.

Originally described from Zanzibar and known from several other localities in East Africa.

(A total of 12 ♂♂ and 15 ♀♀ were taken at the north end of a range, in grasslands; not seen at the southern end.)

*PARACOMACRIS STENOPTERUS* (Schaum, 1853).

April, 5,200 ft. 6 ♀♀; May, 5,600 ft., 4 ♂♂, 6 ♀♀; June, 5,600 ft., 5 ♂♂, 2 ♀♀; July, 5,000 ft., 1 ♂, 1 ♀, 2 larvae.

(Altogether 18 ♂♂, 17 ♀♀ and 3 larvae were taken. Common at the northern half of the range in grass lands when numbers could be taken by sweeping.)

?*ANABLEPIA RUFESCENS* (Kirby, 1902).

April, 5,200 ft., 1 ♂; May, 5,600 ft., 3 ♂♂.

The type of *A. rufescens*, described from Baringo, is inaccessible for examination at the moment and the determination must, therefore remain doubtful.

(A rather obscure species occurring alongside *P. stenopterus* in the same type of surrounding and not easily differentiated in the field.)

*JANSOMENIA DIMIDIATA*, I., Bolivar, 1911.

June, 3,000 ft., 2 ♀♀. (We found this to be a low level species and have no record of it other than on the Noka Track at the south approach to the range.)

*HETEROPTERNIS COULONIANA*, Saussure, 1884.

April, 5,400 ft., 2 ♂♂, 1 ♀; May, 5,400-5,600 ft., 3 ♂♂, 3 ♀♀; June, 5,600 ft., 1 ♀, 1 larva; July, 5,600 ft., 1 larva.

(A total of 6 ♂♂ and the above-mentioned females were taken. They occurred on the lava flows where vegetation was sparse.)

*GASTRIMARGUS AFRICANUS* (Saussure, 1888).

April, 5,200 ft., 2 ♂♂, 1 ♀.

(Not common. Conspicuous in flight, but easily mistaken for the next species, on account of the hind-wing pattern and colour.)

*GASTRIMARGUS BREVIPES* (Sjostedt, 1928).

April, 5,200-5,400 ft., 2 ♂♂, 2 ♀♀; May, 5,500-5,600 ft., 2 ♂♂, 3 ♀♀.

(Because of their cryptic colouration they are difficult to see at rest; they are equally difficult to capture for they take flight readily. With this, as with many other species, we found it more sluggish in the early morning, and thus more easy to take.)

*LAMARCKIANA*, sp.

July, 3,500 ft., 1 ♂. (No examples of this genus were noted on the range proper, but both sexes occurred on the low foothills, more especially at the south end toward the Noka Track. This is a very difficult group and paired material is badly required.)

*PARASPHENA NAIROBIENSIS*, Sjostedt, 1933.

April, 5,200 ft., 2 ♂♂, 3 ♀♀; May, 5,600 ft., 1 ♂, 2 ♀♀.

The species has been described from a single male, previously preserved in alcohol and discoloured. The specimens before me have the following parts red: base of antennae, edges of fastigium, median carina of the head and pronotum, posterior and anterior margin of the pronotal disc, median line of the abdomen, and posterior tibiae. The lateral series of light spots on abdominal tergites is sometimes obsolete. General colouration blackish-olivaceous above, greenish-olivaceous below.

(It is to be noted that Chyulu examples do not agree with specimens taken from the environs of Nairobi, from whence

came the type. And if view of the fact that this type was an alcohol preserved specimen, subsequently staged, it is quite possible that the Chyulu insect represents a distinct species or race.)

*PHYMATEUS VIRIDIPEs*, Stal, 1873.

May, 5,500 ft., 4 ♂♂, 4 ♀♀, 4 larvae. (This species was common. Adults, particularly females, were sometimes noted flying from one forest patch to another at a considerable height over the intervening grass land. Several clusters of larvae were noted. The sex ratio is worth noting in these associations, throughout the moults, so also the precedence of sex maturity, and the degree of "invasion" by males from another hatch.)

*TAPHRONOTA CALLIPAREA* (Schaum, 1853) var.  
*immaculata* Sjostedt, 1929.

April, 5,200 ft., 1 ♂; May, 5,500 ft., 1 ♂; June, 5,600 ft., 1 ♂.

This "variety" with the unspotted posterior femora is known from Kilimanjaro and its relation to the true *calliparea* remains to be studied. (No females were noted, but "bunches" of larvae in various stages were not infrequently met with. The males were taken as isolated specimens along the forest edge.)

*TAPESIA GRISEA* (Reiche et Fairmaire, 1847)?

April, 5,200 ft., 1 larva; May, 5,500 ft., 1 ♂; June, 3,000 ft., 1 ♂; July, 6,000 ft., 1 ♂.

Sjostedt's revision of the genus (Ark. Zool. Bd. 15, No. 16, 1923) is based on such arbitrary and unreliable characters that its use is practically impossible. I am, therefore, unable to refer the specimens before me to any of the ten "forms" into which that author has subdivided the species.

(Found sparingly throughout all parts of the range. Altogether 10 examples were taken. They are longer winged than a series taken at Moshi and Kilimanjaro, and less distinctly spotted. A further series from Uganda, is short-winged, and more unicolourous than even the Moshi material.)

*CATANTOPS KILIMANJARICUS*, Ramme, 1929.

April, 5,200 ft., 5 ♂♂, 4 ♀♀; May, 5,400-5,500 ft., 1 ♂, 1 ♀; June, 5,600 ft., 3 ♂♂; July, 5,600 ft., 1 ♂, 2 ♀♀.

This species is so far known only from Kilimanjaro, at the altitudes ranging from 1,500-2,700 mtrs.

(Sixty-six examples in all were taken. It was very common in the grasslands of the higher elevation, and half a dozen or so could be taken at one sweep of the net. Its range across the

Laitokitok plains to Chyulu and again to the Emali hills is of interest, for we have no record of it on the plains themselves.)

?*CATANTOPS MOMBOENSIS*, Sjostedt, 1931.

April, 5,200 ft., 1 ♀.

This species has been described from a single male from Usambara, and I cannot be certain in my determination of the female before me.

*CATANTOPS DECORATUS*, Gerstaecker, 1869.

April, 3,800 ft., 1 ♂, 1 ♀; July, 3,000 ft., 1 ♂.

(This species might easily be mistaken for *C. kilimanjaricus* in the field. It was however scarce on the higher altitudes, a few examples being taken at 5,600 ft. We have noted it as common on the lower elevation. The yellow band on the hind tibiae is distinctive.)

*CATANTOPS*, sp.

April, 5,200 ft., 1 ♀.

This specimen belongs to the group of stout, hairy and rugose species (e.g. *tukuyensis* Miller.), but impossible to identify without a male.

(I have looked over the Catantops kept behind and find no male which I can associate with the above specimen. It must be a scarce species, for daily hunting failed to turn up another specimen.)

*THISOICETRUS LATICERCUS*, sp. nov. (Fig. 1, L.)

Belongs to the group of *T. pulchripes* Schaum, but is very distinct from that species in the structure of the male cerci.

♂ Antennae much longer than head and pronotum together, distinctly incrassate beyond the basal third, the median joints being about half again as long as broad.

Face moderately oblique. Frontal ridge practically flat, weakly narrowed at the fastigium and slightly constricted under the ocellum; surface with punctures, which are more dense and less regularly arranged below the ocellum. Fastigium of vertex prominent, very weakly concave without the median carinula.

Pronotum obtusely tectiform above. Median carina low, but acute. The first two transverse sulci fine, scarcely cutting the median carina; third sulcus deeper, placed at about two-thirds of the length. Lateral carinae distinct, but irregular, weakly incurved in prozona and convex in metazona. Anterior margin rounded; posterior margin very broadly rounded-angulate.

Prosternal tubercle tongue-shaped, weakly narrowed to the apex which is rounded.

Elytra almost reaching the apex of abdomen, narrow.

Apex of abdomen somewhat swollen. Last tergite divided into two lateral parts by a broad median excision; each part bears a small projection on its inner angle. Supraanal plate oval, with attenuate apex; surface with a median furrow in

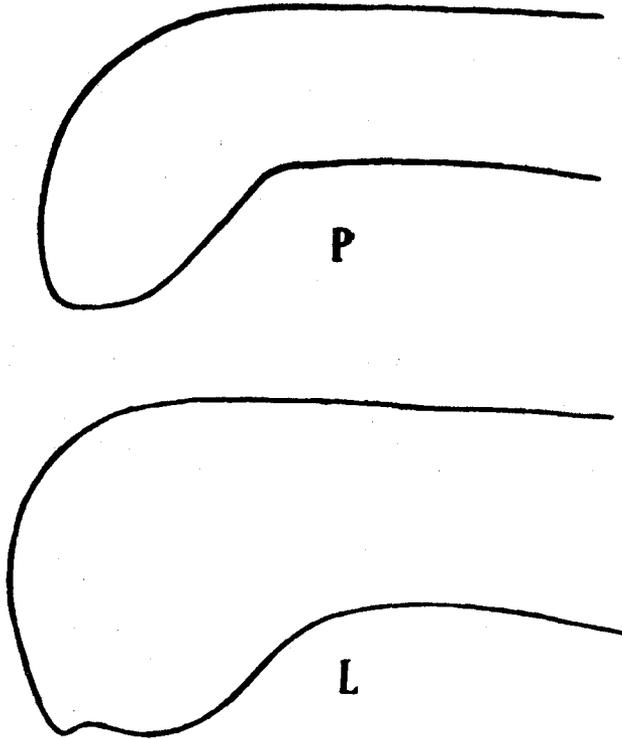


FIG. 1. P, male cercus of *Thisiocetrus pulchripes* (Schaum); L, ditto of *Thisiocetrus laticercus*, sp.n.

the basal half, and with an oblique, raised fold beyond the middle of the lateral margin. Cercus large, generally rather broad, with the apical part strongly flattened, decurved and expanded; subapical margin with a shallow emargination. Subgenital plate short, globose, punctured.

General colouration blackish-olivaceous. Face with two broad, light sulphurous stripes; frontal ridge in the upper part yellowish. Head above with two indistinct brownish stripes. Pronotum above velvety-brown, with two sharply defined yellow stripes. Elytra uniformly infumate, with the anal area of lighter olivaceous-brown colour. Wings dark yellow, with brown veins. Front and middle legs olivaceous. Hind femur externally brown, with a median and a preapical yellow ring; internally yellow with two brown fasciae; below yellow, with a single postmedian brown fascia; knee blackish all round. Hind tibia mostly dirty blue; base black, followed by a yellow ring and a blackish one.

Length of body ♂ 22, ♀ 38; pronotum ♂ 5, ♀ 8; elytra ♂ 13, ♀ 22; hind femur ♂ 14, ♀ 24 mm.

Described from the following material from the Chyulu Hills: April, 5,200 ft., 1 ♂; May, 5,400-5,500 ft., 4 ♂♂; June, 5,600 ft., 1 ♂ (type), 3,000 ft., 1 ♀; July, 3,500 ft., 3 ♀♀. The type and some paratypes are in the British Museum; other paratypes in the Coryndon Museum, Nairobi.

At the first glance, this species may be taken for a very close relation of *T. pulchripes*, differing mainly in the abbreviated elytra, but a closer study reveals a striking difference in the structure of the male external genitalia, particularly the cerci, as can be seen from comparing the figures (fig. 1, P and 1, L). The cercus of the new species is not only broader generally and especially in the apical decurved portion, but the lower edge of the latter is somewhat emarginated. The shape of this emargination is a little variable and sometimes it is very shallow, but there is no doubt that it is a real structural feature and not one due to partial bending of the margin. In the shape of the cercus, the new species resembles *T. brevipennis* I. Bol.\* described from Mt. Kenya and again, as *T. nairobiensis*, from Nairobi. Both descriptions are not very exact and the second one was based on a specimen previously preserved in fluid, which affected not only the colouration, but also caused a shrivelling of the cercus as can be clearly seen from the figure. I have before me a well preserved male from Mt. Kenya which agrees well with both descriptions and which I take to be *T. brevipennis*. It differs from *T. laticercus* in the colouration, particularly of the hind femur which is mostly red and without wide black pattern, as well as by the male cercus having no subapical emargination. It is not improbable that *T. laticercus*

\* The following synonymy, although not based on examination of the types, appears correct: *Thisiocetrus brevipennis* I. Bolivar, 1914 = *T. nairobiensis*, Sjostedt, 1933 (*syn. nov.*).

represents merely a subspecies of the *T. brevipennis*, but it appears wiser to regard it temporarily as a distinct species.

*BIBULUS CAERULESCENS* (Stal, 1876).

April, 5,200 ft., 1 ♀.

The synonymy of *B. brunni* Giglio-Tos 1907 with *Euprepocnemis caerulescens*, Stal, 1876, has been recorded by me recently elsewhere (Novitates Zoologicae, in Press).

(This species was definitely scarce; no other examples were noted.)

*EUPREPOCNEMIS IBANDANA* Giglio-Tos, 1907.

May, 5,600 ft., 1 ♂. (No other specimen was seen.)

*CALOPTENOPSIS FERRIFER* (Walker, 1870).

May, 5,400-5,600 ft., 6 ♂♂, 6 ♀♀.

(An extremely abundant species. It occurred in vast numbers in the grasslands, more especially at the north end of the range. Altogether 38 ♂♂ and 64 ♀♀ were netted.)

*PLATYPHYMUS GRANULATUS*, Uvarov, 1922.

April, 5,200, 3 ♂♂, 2 ♀♀; May, 5,200-5600 ft., 3 ♀♀, 3 ♂♂; July, 4,000 ft., 1 ♀.

Described from Baringo, Kenya, 4,000 ft.

(A very common species on the exposed lava slopes where the grass was not too high. When disturbed, they first dropped to the ground where their colour blended well with the black-brown lava gravel.)

*TYLOTROPIDIUS*, sp.

May, 5,000-5,600 ft., 2 ♂♂, 2 ♀♀; June, 5,600 ft., 1 ♀.

Species of this genus cannot be determined with any certainty until the genus is revised.

(Though scarce on Chyulu, this is an abundant species on the Emali range to the north. Their very long legs enable them to jump long distances, and when they alight they slip into the base of the grass tufts; they can then be caught with ease. They are loath to take flight at once.)

*ABISARES VIRIDIPENNIS AZUREA*, Sjostedt, 1909.

April, 3,800 ft., 2 ♀♀; June, 2,800 ft., 1 ♀.

(Was seldom noted on the high elevations, but frequently seen on the lower foothills.)

*BYROPHYMA DEBILIS PICA*, Uvarov, 1922.

April, 5,600 ft., 1 ♀. (No other example was taken; it was scarce on the range.)

*RHYTIDACRIS TECTIFERA* (Karsch, 1896).

July, 3,000 ft., 1 ♂. (An uncommon species and taken only on the lower foothills, on an acacia tree; its colour is very procryptic.)

*ANACRIDIDIUM MOESTUM* (Serville, 1839).

April, 3,800 ft., 1 ♂.

A very small specimen: length of body 44, elytra 46 mm.

(This species is almost entirely arboreal, having a definite preference for certain species of Acacia on which it feeds, both as imago and larva. Because of this habit, it is caught with considerable difficulty; one's net suffers in the attempt. If however one drives them from tree to tree, they eventually tire and take shelter on the ground where they can be netted more easily. When they alight on the Acacia branch they lie horizontally to the branch and as one approaches the tree they slip round to the far side and crouch. Their colour blends well with the tree stem or branch. In flight, the dark under-wings are distinctive.)

*ORNITHACRIS CYANEA MAGNIFICA* (L., Bolivar, 1886).

April, 5,200 ft., 1 ♂; May, 5,600 ft., 2 ♂♂, 2 ♀♀; June, 5,600 ft., 2 ♀♀; July, 5,600 ft., 1 ♂.

(In all, 18 males and 12 females were taken. Their flight is strong and they carry a long distance. The magenta under-wings make this a conspicuous insect in flight. Because of their strong flight and in order to secure specimens, the first few were shot with a .410 and dust shot; we later on found them to be rather sluggish in the early morning and so fairly easy to catch.)

*CYRTACANTHACRIS TATARICA* (Linne 1758).

April, 5,400 ft., 1 ♀; May, 5,500 ft., 2 ♀♀.

(Seven examples in all were netted; it was not very abundant.)

*ACANTHACRIS RUFICORNIS FULVA* (Sjostedt., 1909).

April, 5,200 ft., 1 ♂; May, 5,500 ft., 1 ♂, 1 ♀; June, 5,600 ft., 1 ♂; July, 6,000 ft., 1 ♂.

(Of the total of 10 secured, six were females. Not common.)

*CHONDRACRIS SANGUINEA* (Sjostedt, 1812).

April, 5,400 ft., 2 ♂♂, 2 ♀♀; May, 5,500 ft., 1 ♀; June, 5,600 ft., 1 ♀; July, 5,600-6,000 ft., 2 ♂♂, 1 ♀.

(Fairly plentiful where the moreland was a good mixture of woody herbs and rank grass. When disturbed they sought shelter in the herbage.)

*OXYRRHEPES PROCERA* (Burmeister, 1839).

April, 5,200 ft., 1 ♂, 1 ♀; May, 5,500 ft., 1 ♀.

(We considered this rather rare on the range, and noted it only at the northern end. Its very pale colouration is noticeable in the field, both in flight and at rest.)