

2. Die Richtung des Anfangsabschnittes dieser Kurve gibt die Eidichte und damit die Befallsintensität an.

Wenn die Summierung der Eizahlen der Zweigstufen bis etwa 30 cm einen gewissen Wert erreichen (150), ist dies zur Konstruktion des Anfangsabschnittes der Kurve, dessen Richtung bereits für die Befallsintensität kennzeichnend ist, ausreichend.

3. Es ist eine Fortsetzung der Untersuchungen erforderlich, um die Zusammenhänge zwischen der Eidichte und — unter Bezug auf die künftige Laubmasse, dargestellt durch die Knospenanzahl — der zu erwartenden Befallsstärke aufzuzeigen.

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East African Blattodea, Phasmatodea and Orthoptera

(Ergebnisse der Deutschen Zoologischen Ostafrika-Expedition 1951/52,

Gruppe Lindner, Stuttgart, Nr. 5)

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(With 6 Figures)

The collection of Orthopteroid insects brought back by Prof. LINDNER is not very extensive, but it nevertheless contains several specimens of interest. Most of the material comes from the northern part of Tanganyika Territory, from the region of Kilimanjaro and the North Pare Mountains and from the Serengeti Plains, but a few specimens were obtained in other parts of eastern Africa. The latitude and longitude of the localities concerned in this paper are (except for well-known towns) given below, as follows:

Kifaru	03°	40' S.	37°	35' E.
Kware	03	17	37	10
Machame (1500 m)	03	13	37	12
Makoa (1200 m). .	03	10	37	05
Moshi	03	21	37	20
Morogoro	06	43	37	45
Msingi (1400 m). .	03	07	37	04
Mugango.	02	01	33	25

Nata	02°	00' S.	34°	25 E.
Ngaruka	02	00	36	10
Torina	02	10	34	40
Usangi	03	42	37	40

In addition to recording the material collected by Prof. LINDNER, leader of the expedition, this opportunity is taken to describe a few new forms of *Acrididae* collected by others in various parts of East Africa. Type material which was not brought back by the Expedition is, unless stated otherwise, in the British Museum, London. Types from Prof. LINDNER's material are in Stuttgart.

The writer wishes to thank the following for assistance in various ways: Dr. L. CHOPARD (Paris), Dr. V. M. DIRSH (London), Dr. K. PRINCIS (Lund), Mr. H. SCHIEMENZ (Berlin) and Dr. B. P. UVAROV (London).

Blattodea

Thereidae

Thereinae

Heterogamodes rugosa (Schulth.) — Ngaruka, 13. II. 1952, 1 ♂ (det. PRINCIS).

Blaberidae

Epilamprinae

Leucophaea thoracica (Kirby) — Makoa, 2. IV. 1952, 1 ♀.

Gyna maculipennis (Schaum) — Kware, 17—21. I. 1952, 1 ♀.

Blattidae

Blattinae

Pseudoderopeltis simulans Princis — Dar-es-Salaam, 11—20. XII. 1951, 1 ♀ (det. PRINCIS).

The adult female of this species has not been described previously. The present specimen agrees in most respects with the paratypic female nymph described by PRINCIS (1951). It differs from the male type as follows: —

Antennal segments piceous, not black; pronotal disc without yellow marks; tegmina abbreviate, more or less uniform castaneous, scarcely longer than the mesonotum; hind wings absent; meso- and metanota as in paratypic nymph, the latter with yellow submarginal maculae; first four abdominal terga piceous, fifth similarly coloured but with a pair of submarginal yellow spots; remaining abdominal terga paler castaneous; epiproct broadly triangular, notched at the apex; valves of external genitalia short and stout, Length 24, pronotum 6.5 × 10, tegmen 4.5 mm.

Deropeltis wahlbergi (Stål) — Kware, 18. I. 1952, 1 ♂; Dar-es-Salaam, 11—20. XII. 1951, 1 ♂ (det. PRINCIS).

Pseudomopidae

Pseudomopinae

Symploce incuriosa (Sauss.) — Makoa (cave), 23. II. 1952, 1 ♂ (det. PRINCIS).

Phasmatodea*Phasmatidae**Palophinae*

Palophus sp. — Torina, 4. III. 1952, 1 ♀ (nymph).

*Lonchodidae**Clitumninae*

Gratidia silvaepluvialis Sjöst. — Kibo West, 3,550 m., 23—30. IV. 1952, 1 ♂, 1 ♀.

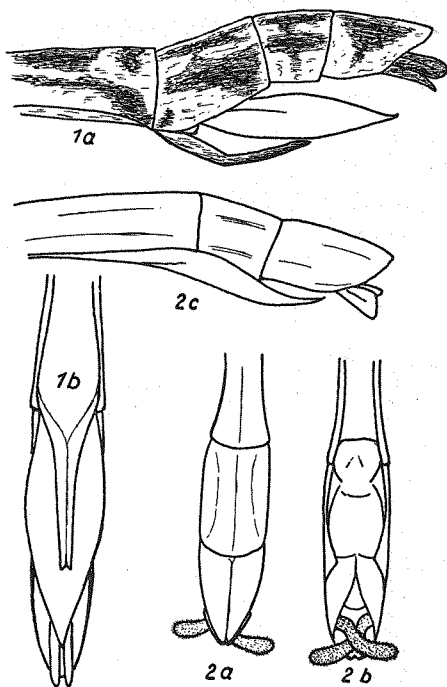


Fig. 1. *Gratidia silvaepluvialis* Sjöst.: apex of abdomen, ♀; (a) lateral; (b) ventral

Fig. 2. *Gratidia lindneri*, n. sp.: apex of abdomen; (a) ♂, dorsal; (b) ♂, ventral; (c) ♀ lateral

The female of this beautiful, mottled and comparatively robust species has not previously been recorded. It differs from the male (cf. SJÖSTEDT, 1909) in having shorter antennae (with short moniliform segments) and femora. The external genitalia are as figured (Fig. 1). Length 53, antenna 4, mesothorax 9, metathorax 7, fore femur 16, middle femur 10, hind femur 14 mm.

Gratidia massaica Sjöst. — Msingi, 27. I. 1952, 1 ♂; 16. II. 1952, 1 ♀.

Gratidia postrostrata Karsch — Kware near Moshi, 27. XII. 1951 —

13. I. 1952, 1 ♂; without data, 1 ♂.

Gratidia lindneri, n. sp. (Fig. 2)

Type: ♂, Tanganyika Territory, Torina [02° 10' S., 34° 40' E.], 4—18. III. 1952 (D. O.-Afrika Exp.).

A greatly elongate species. Head longer than prothorax, nearly twice as long as wide, without tubercles and strongly narrowed posteriorly; median and lateral carinae present, faint; eyes rather prominent, globose;

antennae about half so long as front femur, flagellum with seventeen elongate segments which are five to seven times as long as wide. Prothorax elongate, a little more than one and a half times as long as wide; mesothorax a little longer than the metathorax, about two-thirds as long as the middle femur. Median (first abdominal) segment very slightly longer than wide; abdominal segments II to VII subequal, about six times as long as wide; terminal abdominal segments and external genitalia

as illustrated (Fig. 2a, b); cerci rather similar to those of *G. elgonensis* Sjöstedt, 1933.

Coloration: General colour testaceous, paler below. Antennae progressively darker towards the apices which are almost black. Dorsum, from mesothorax to epiproct, dark fuscous margined blackish, median carina blackish; head and pronotum rather similarly marked but a little paler and with a dark lateral band stretching from behind the eye to the posterior margin of the pronotum. Ventral aspect pale testaceous, the meso- and metanota and the abdominal segments narrowly margined blackish laterally so as to form a sharply defined, narrow pleural stripe. Front femora brownish-testaceous; middle and hind femora and tibiae fuscous except for the pale bases of the hind femora; tarsi fuscous.

Measurements: Length 79, antenna 17, mesonotum 17, metanotum 15, fore femur 32, middle femur 24, hind femur 28.5 mm.

Allotype: ♀, Same data as type.

Larger and stouter than the male; with comparatively shorter antennae and legs, especially the former which have transverse or quadrate segments (except for the apex). External genitalia as illustrated (Fig. 2c).

Coloration: More or less uniform testaceous with a faint indication of slightly heavier pigmentation corresponding to that found in the type, especially on the head and pronotum; apical half of antennae and the tarsi fuscous.

Measurements: Length 113, antenna 8, mesonotum 18.5, metanotum 15.5, fore femur 31, middle femur 23, hind femur 29.5 mm.

This species seems to be fairly near to *G. elgonensis* Sjöst., but differs in its considerably greater size. The male cerci are not unlike those of that species, but the epiproct is not truncated in *G. linderni*. Pleasure is taken in dedicating it to the leader of this group of the Expedition.

Distribution: Known so far only by the above specimens from the Serengeti Plains.

Orthoptera (s. str.)

Ensifera

Tettigonioidae

Pseudophyllidae

Acauloplax exigua Karsch — Kware near Moshi, 27. XII. 1951 — 13. I. 1952, 1 ♀.

Cymatomera paradoxa Gerst. — Kifaru, Pare Mount., 13. V. 1952, 1 ♀.

Conocephalidae

Conocephalinae

Conocephalus conocephalus (Linné) — Torina, 4—18. III. 1952, 1 ♀; 9. III. 1952, 1 ♀.

Conocephalus iris (Serv.) — Dar-es-Salaam, 11—20. XII. 1951, 1 ♀; Torina, 4—18. III. 1952, 1 ♂.

Copiphorinae

Homorocoryphus nitidulus vicinus (Wlk.) — Dar-es-Salaam, 11—20. XII. 1951, 2 ♂♂; Torina, 29. I.—14. II. 1952, 1 ♀.

Phaneropteridae

Phaneropterinae

Phaneroptera nana Fieb. — Msingi, 12. V. 1952, 1 ♀.

Phaneroptera sp. — Usangi, Pare Mount., 2. VI. 1952, 1 ♀.

Tylopsis dispar Sjöst. — Kware near Moshi, 2. I. 1952, 1 ♂.

Pantolepta heteromorpha Karsch — Usangi, Pare Mount., 5. V. 1952, 1 ♂; Msingi, 15. V. 1952, 1 ♂.

Eurycorypha meruensis Sjöst. — Ngaruka, 31. I. 1952, 1 ♂.

Eurycorypha sp. — Kware near Moshi, 6. I. 1952, 1 ♀.

Arantia sp., aff. *A. spinulosa* Br. v. W. — Makoa, 30. III. 1952, 1 ♀.

Grylloidea

Gryllidae

Gryllinae

Brachytrypes membranaceus (Drury) — Morogoro, 23. XII. 1951, 1 ♂.

Acheta sp. aff. *A. leucostomus* (Serv.) — Dar-es-Salaam, 11—20. XII. 1951, 1 ♂. (det. L. CHOPARD).

Acheta laticeps (Chop.) — Machame, 15. IV. 1952, 1 ♂ (det. L. CHOPARD).

Scapsipedus marginatus (Afz. & Brann) — Dar-es-Salaam, 11—20. XII. 1951, 1 ♀.

Trigonidiidae

Trigonidium cicindeloides Ramb. — Kware near Moshi, 27. XII. 1951 — 13. I. 1952, 1 ♂; 1. I. 1952, 1 ♂; Usangi, Pare Mount., 25. V.—8. VI. 1952, 1 ♀.

Anaxipha longipennis (Serv.) — Kware near Moshi, 3. I. 1952, 1 ♂ (det. L. CHOPARD).

Phalangopsidae

Phaeophilacris spectrum Sauss. — Makoa (cave), 22—23. II. 1952, 1 ♂, 1 ♀.

Oecanthidae

Oecanthus burmeisteri Sauss. — Ngaruka, 11. II. 1952, 1 ♀.

Gryllotalpidae

Gryllotalpa africana (Pal. de Beauv.) — Moshi, Kware, 13. VI. 1952, 1 ♂.

Caetifera

Tridactyloidea

Tridactylidae

Tridactylinae

Tridactylus madecassus Sauss. — Serengeti, Nata, 2. III. 1952, 1 ♂.

*Acridoidea**Tetrigidae**Tetriginae*

Paratettix sp., aff. *P. scaber* (Thunb.) — Kware near Moshi, 27. XII. 1951 — 13. I. 1952, 3 ♀♀; Usangi, Pare Mount., 30. V. 1952, 1 ♂; Torina, 4—18. III. 1952, 1 ♂; KENYA (Coast), Mombasa, 9. XII. 1951, 1 ♂, 2 ♀♀.

African members of the group which contains *P. scaber* are in need of revision and cannot be named at present.

*Acrididae**Catantopinae*

Oxaeida poultoni Ramme — Usangi, Pare Mount., 31. V. 1952, 1 ♂.

Spathosternum brevicorne Uvarov — Torina, 4—18. III. 1952, 1 ♀.

Cyrtacanthacris tatarica tatarica (Linné) — Msingi, 22—28. I. 1952, 1 ♀.

Acanthacris ruficornis lineata (Stoll) — Msingi, 17. II. 1952, 1 ♂.

Kraussaria deckeni, n. sp. (1950)

Kraussaria deckeni Kevan, 1950, J. E. Afr. nat. Hist. Soc., 19, 220, 219, pl. XXXIV, fig. 5B, non *Acridium Deckeni* Gerstaecker, 1869, Arch. Naturgesch., 35, no. 69, p. 219.

Since this large green species was discussed and figured, an opportunity of examining material of GERSTAECKER'S species has occurred and it has been found that *A. deckeni* Gerst. is indeed a species of *Acanthacris* Uvarov (as restated by UVAROV, 1953), contrary to the belief previously expressed by the writer (KEVAN, 1950). Since the combination *Kraussaria deckeni* has been used only for this, hitherto apparently undescribed species, it would seem that this name must be retained. As type, I select the female Teita specimen of which photographs, measurements and other data have been published in the reference cited and which formed the basis upon which the diagnostic characters there given were founded. It is in the Coryndon Memorial Museum, Nairobi, Kenya.

The species was not taken by Professor LINDNER but the opportunity is taken here to clarify the position because of the existence of a specimen from the same general area as that covered by the group: 1 ♀, nr. Kilimanjaro, Ngare Nairobi, 5,000—5,500 feet, I—II. 1938 (B. COOPER).

There is also another ♂ specimen from Tanganyika: Kilosa, Tindega, I. 1926 (N. C. E. MILLER) in the British Museum.

Bryophyma debilis picta Uvarov. — Torina, 4—18. III. 1952, 1 ♂.

Abisares viridipennis azurea Sjöst. — Ngaruka, 10. II. 1952, 1 ♀; 11. II. 1952, 1 ♂; Kware near Moshi, 27. XII. 1951 — 13. I. 1952, 2 ♂♂; Msingi, 1—9. V. 1952, 1 ♀; Mugango, Lake Victoria, 19—25. III. 1952, 1 ♀.

The last mentioned specimen is somewhat intermediate, having a pronotal crest reminiscent of subsp. *rufispinis* Uvarov, but it agrees in the colour of the wings and the tibial spines with the present subspecies.

Acrostegastes glaber Karsch — SOMALIA (Benadir), Mogadishu, 7. XII. 1952, 1 ♀.

Catantops brunneri Karny — SOMALIA (Benadir), Mogadishu, 7. XII. 1952, 1 ♀.

Catantops melanostictus melanostictus Schaum — Kware near Moshi, 12. I. 1952, 1 ♂; Kware, 17. I. 1952, 1 ♂; Torina, 4—18. III. 1952, 1 ♀ (♂).

These are referable to SJÖSTEDT'S *C. momboensis*, which is a synonym (cf. DIRSH & UVAROV, 1953).

Catantops, sp. aff. *melanostictus* Schaum? — Kware near Moshi, 27. XII. 1951 — 13. I. 1952, 1 ♀.

It is not possible to identify this specimen certainly since it is a female and atypical.

Eucoptacris exigua I. Bol. — Kware near Moshi, 27. XII. 1951 — 13. I. 1952, 1 ♀.

Gen. Parepistaurus I. Bol.

There are several localized species of this genus (cf. UVAROV, 1953). Three more East African forms are known to the writer, one of these having been brought back by Professor LINDNER.

Parepistaurus felix, n. sp. (Fig. 3)

Type: ♂, Kenya Coast, near Malindi, 1940, (L. S. B. LEAKEY).

The insect is covered with long, sparsely distributed, pale hairs.

Head: Antennae longer than head and pronotum together. Frons rugose, strongly pitted; frontal ridge low, coarsely punctate, narrowing from between the antennae towards the fastigium and gradually tapering to the clypeus from below the median ocellus. Dorsal surface of the head sparsely punctured; fastigium verticis narrow with raised margins as illustrated (Fig. 3), rugose with a deep transverse depression at the anterior end of the narrow inter-ocular space and a raised transverse ridge at the posterior end; median carinula very strong between these two points, less distinct behind.

Thorax: Pronotal disc tectiform, slightly arched in profile, strongly and irregularly rugose; anterior and posterior margins slightly produced; metazona depressed on either side of the median carina giving a "pinched" appearance and causing the carina to stand out strongly (Fig. 3a); lateral carinae, slightly callous, as illustrated, obsolete between the anterior and typical pronotal sulci; sulci as illustrated, rather irregular and not very distinct. Prosternal tubercle strongly pyramidal, erect, quadrate in section.

Tegmina: Abbreviate; shape as illustrated (Fig. 3b), just surpassing the posterior margin of the first abdominal segment.

Legs: Femora more densely hairy above than the rest of the body. Hind femora slender, more than four times as long as wide.

Abdomen: Terminal segments and genitalia specialized, as illustrated (Fig. 3c). Lobes of epiproct rather thin; cerci very stout, the tips rounded and inwardly curved; subgenital plate short, rounded.

Coloration: General colour olive-testaceous. Dorsal surface of head and pronotum and some suffused patches on the abdomen and hind femora, dark fuscous. Cheeks and a broad, curved band extending from the lower half of the anterior margin of the lateral pronotal lobe nearly to the posterior margin of the pronotum in the region of the lateral carina of the disc, shiny black, the lobe below and behind this being pale yellowish-testaceous; costal margin of tegmen also black; pleura very dark fuscous; mouthparts, anterior and median legs greenish; hind tibiae and tarsi light red.

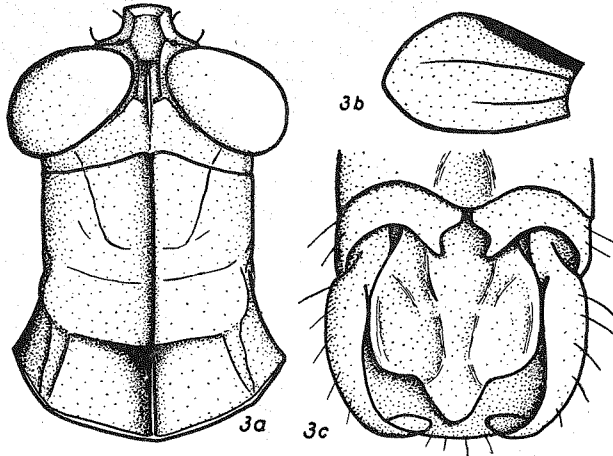


Fig. 3. *Parepistaurus felix*, n. sp., ♂: (a) head and pronotum (dorsal); (b) left tegmen; (c) genitalia (dorsal)

Measurements: Length 15, pronotum 3.6, tegmen 2.7, hind femur 11 mm.

This species may be distinguished by its rather large size and somewhat hairy appearance. It differs from *P. deses* principally in the cerci and epiproct, but the fastigium verticis in that species is more constricted posteriorly, the lateral pronotal carinae less distinct and the frontal ridge a little more sharply constricted below the median ocellus. The tegmina of *P. deses* also are less distinctly black along the anterior margin. The male genitalia appear to be nearest to those of the recently described.

P. zanzibaricus Uvarov, 1953, especially in the shape of the epiproct, but the cerci are even more specialized.

Distribution: So far only known from the Kenya coast.

***Parepistaurus vansomereni*, n. sp. (Fig. 4)**

Type: ♂, Kenya, Teita Hills, VIII. 1947 (V. G. L. VAN SOMEREN).

Very similar to *P. deses*; covered with sparsely distributed, pale hairs which are shorter than in *P. felix*.

Head: Similar to that of *P. felix* as described above; frontal ridge distinctly constricted below the median ocellus, tapering fairly sharply to

the clypeus. Margins of fastigium verticis somewhat approximated posteriorly so as to form a partly closed cell as in *P. deses* otherwise much as illustrated for *P. felix*.

Thorax: Very similar to *P. deses* and *P. felix*, but lateral carinae less distinct than in latter.

Tegmina: Abbreviate; similar in shape to the other species, barely reaching the posterior margin of the first abdominal segment.

Legs: As in *P. deses*; more densely hairy above than the rest of the body, but less so than in *P. felix*. Hind femora a little more than four times as long as wide.

Abdomen: External genitalia as illustrated (Fig. 4), simpler than in other species. Epiproct with sub-parallel sides; cerci almost straight, comparatively slender and more or less pointed.

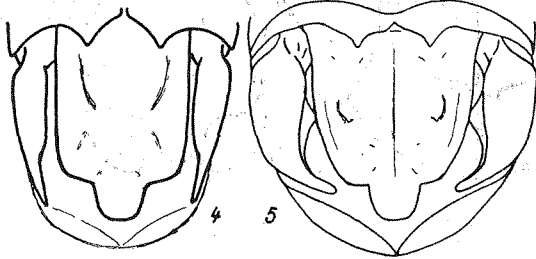


Fig. 4. *Parepistaurus vansomereni*, n. sp., ♂: genitalia (dorsal)

Fig. 5. *Parepistaurus lindneri*, n. sp., ♂: genitalia (dorsal)

Coloration: Similar to *P. deses*, less distinctly marked than the type of *P. felix*.

Measurements: Length 11.5, pronotum 3.4, tegmen 2.4, hind femur 10 mm.

Allotype: ♀, Same data as type.

Agrees with type but larger; not easily distinguishable from *P. deses*. Epiproct narrowly triangular, compressed. Cerci conical, not reaching apex of epiproct. Valves of ovipositor unspecialized, rather weak.

Measurements: Length 16.5, pronotum 5.0, tegmen 4.0, hind femur 12 mm.

Paratype: 1 ♀, Same data as type.

This species is close to *P. deses* but differs in the straighter, slender cerci and the subparallel-sided epiproct in the male. Pleasure is taken in dedicating it to Dr. V. G. L. VAN SOMEREN, in whose collection at Ngong, Kenya, the type material is at present preserved. This will eventually be deposited in the British Museum (Natural History), London.

Distribution: Probably confined to the Teita Hills.

Parepistaurus lindneri, n. sp. (Fig. 5)

Type: ♂, Tanganyika Territory, Kilimanjaro, Msingi, 03° 07' S., 37° 04' E., 1400 m., 1-19. VI. 1952 (Dtsch. O.-Afr. Exped.).

Very like *P. deses* and *P. vansomereni* but slightly larger; not densely pilose.

Head: Similar to that described for *P. felix*, but fastigium of vertex less strongly margined and similar to *P. vansomereni*. Antennae somewhat longer than the head and pronotum together:

Thorax, Tegmina and Legs: As in *P. vansomereni*.

Abdomen: Unremarkable except for the external genitalia which are as illustrated (Fig. 5). Epiproct parabolic with a broad, tongue-like median lobe and raised lateral tubercles. Cerci greatly incrassated, heavy and strongly incurved apically, acuminate; infero-internal aspect with a peculiar, angularly produced, horizontal flange. Subgenital plate short, broad and rounded.

Coloration: as *P. vansomereni*.

Measurements: Length 12.0, pronotum 3.5, tegmen 2.5, hind femur 10 mm.

Allotype: ♀, same data as type.

Similar to the type but larger, not easily distinguishable from other species; comparable with *P. vansomereni*.

Measurements: Length 16.0, pronotum 4.5, tegmen 3.5, hind femur 11.0 mm.

Paratypes: 2 ♀♀, same locality etc. as type but 11. V. and 18. V. 1952.

This species is reminiscent of *P. amanicus* Uvarov, 1953 in its external male genitalia, but the cerci are more like those of *P. stigmaticus* I. Bolívar, 1911 (from N. Rhodesia, S. E. Congo and Angola), but very much stouter.

Distribution: Known only from the type locality. Owing to the proximity of the type locality of *P. deses* (Machame — see p. 472), it was at first considered that this new species might merely represent an individual variation of that species, but a comparison of the types (that of *P. deses* being kindly loaned by Mr. H. SCHIEMENZ of the Zoological Museum, Berlin) has shown that the genitalia differ too greatly for this view to be acceptable. The figure of *P. deses* given by UVAROV (1953) agrees with the type of that species; his material was part of SJÖSTEDT'S Kilimanjaro series from Kibonoto (c. 03°13' S., 37° 05' E.) which is very near both Msingi and Machame but a little lower (c. 1250 m).

Parathisoicetrus aethiopicus Ramme — Torina, 4—18. III. 1952, 1 ♀.

Eyprepocnemis sp. — Usangi, Pare Mount., 25. V. 1952, 1 ♀.

The single female cannot be identified at present.

Pyrgomorphinae

Parasphena pulchripes (Gerst.) — Kibo West, 3,500—4,500 m., 23—30. IV. 1952, 1 ♂, 1 ♀.

This species is known only from Kilimanjaro although it has been recorded from elsewhere. BORMANS (1881) and BOLÍVAR (1922) both record the species from Ethiopian localities. I do not know to what species the latter author refers (recorded from Laga-Harba; Battcha), but I have

seen one of BORMANS' specimens (♀, Let-Marefia, Shoa, XII. 1879, ANTINORI) which is near *P. abyssinicus* Uv.¹). SCHULTHESS (1898) cites *P. pulchripes* from Obbia on the Somalia coast and SJÖSTEDT (1909a) presumably using this as the source of his information, also notes it from Somalia, but a species of *Pyrgomorphella* or some other genus was probably concerned. BOLÍVAR'S (1922) record for Naivasha refers to *P. naivashensis* Kevan; I have now seen the specimen which is a large female preserved in the Paris Museum.

Zonocerus elegans (Thunb.) — Usangi, Pare Mount., 29. V. 1952, 1 ♀; 4. VI. 1952, 1 ♂; 5. VI. 1952, 1 ♂ (macropterous); Makoa, 22. II. 1952, 1 ♀ (macropterous).

Phymateus purpurascens Karsch — Msingi, 9—17. VI. 1952, 1 ♀.

Phymateus viridipes Stål. — Usangi, Pare Mount., 5. VI. 1952, 1 ♂.

Dictyophorus (*Tapesiella*) *griseus* (Reiche & Fairm.) — Usangi, Pare Mount., 27. V. 1952, 1 ♀.

This seems to be referable to f. *magnificus* (Sjöst.).

Taphronota calliparea (Schaum) — Msingi, 1—19. V. 1952, 1 ♂, 1 ♀.

Taphronota calliparea ab. *poultoni* I. Bol. — Msingi, 30. III. — 13. IV. 1952, 1 ♀; 1—19. V. 1952, 1 ♂.

This reddish form is uncommon in collections. The examples are rather darker than the type specimen (Oxford).

Acridinae

Oedipodini

Chloebora turkanae masaica, n. subsp.

Type: ♀, Kenya, „Olgasalie“, Masai Dist., [c. 01° 35' S., 36° 25' E.] VIII. 1944 (L. S. B. LEAKEY) [Coryndon Memorial Museum, Nairobi].

Differs from the types²) and other material of *Ch. turkanae* Uv. in the dark fascia of the hind wing which, in this form, does not extend one-third of the distance from the anterior to the anal margin. The pronotal keel is rather deeply cut by the typical sulcus so that the pronotum in profile represents a somewhat biarcuate appearance. The wings are of the same pale yellowish colour in the basal half as typical material.

Measurements: Length of body 38, pronotum 10, tegmen 33, hind femur 22 mm.

Paratypes: 2 ♀♀, Same locality as the type, VIII., 1943 (M. MENENGHETTI) — [Coryndon Memorial Museum, Nairobi].

¹) The Laga-Harba is an eastern tributary of the R. Awash, which suggests that BOLÍVAR'S specimen was related to *P. montana* Uv., which was described from Mt. Chilalo in eastern Ethiopia and which, although having scale-like tegmina, conforms otherwise more or less with BOLÍVAR'S sketchy note. *P. abyssinicus* Uv. was described from west of Mt. Zuquala which is S.W. of Addis Abbaba and thus may be considered to be Shoa; BORMANS' specimen is alcohol-preserved and too poor to determine; it may be a new species.

²) Type in Paris Museum; paratypes in British Museum (Nat. Hist.), London.

Differ only in being slightly smaller and in having the pronotum less distinctly biarcuate in profile.

Distribution: So far known only from the type locality but probably extend into northern Tanganyika.

Morphacris fasciata (Thunb.) — Kware near Moshi, 27. XII.1951—13. I.1952, 2♂♂, 2♀♀.

All have the hind wings of the typical red colour.

Tmetonota sp. — Torina, 4—18. III. 1952, 1♀.

This interesting specimen may belong to a new species. It is very small for the genus, being comparable in size with males of other African species. In the absence of further material, however, it would be undesirable to describe it.

Heteropternis sp. ? — Kenya, coast, Mombasa, 9. XII. 1951, 1 nymph (very young).

Aiolopus longicornis Sjöst. — Kware, 19. I. 1952, 2♂♂, 1♀.

Jasomenia dimidiata (I. Bol.) — Kware, 17—21. I. 1952, 1♂.

Paracinema tricolor tricolor (Thunb.) — Kware near Moshi, 12. I. 1952, 1♀.

Acridini

Acrida turrita Linné — Makoa, 22—23. II. 1952, 1♀; Torina, 4—18. III. 1952, 1♂ (dets. confirmed DIRSH).

Acrida bicolor (Thunb.) — Kware near Moshi, 8. I. 1952, 1♀; Kware, 17—21. I. 1952, 1♂; Torina, 4—18. III. 1952, 1♀ (all det. V. M. DIRSH).

Acrida sulphuripennis (Gerst.) — Ngaruka, 29. I. — 14. II. 1952, 2♂♂; Torina, 4—18. III. 1952, 1♀; Dar-es-Salaam, 11—20. XII. 1951, 1♀ (dets. confirmed DIRSH).

Cannula sp., aff. *C. linearis* (Sauss.) — Torina, 4—18. III. 1952, 1♀ (nymph, last instar).

Orthochtha lindneri, n. sp. (Fig. 6)

Type: ♂, Tanganyika Territory, Torina, [02° 10' S., 34° 40' E.] 4—18. III. 1952, (D. O.-Afrika Exp.).

Head: Antennae long and slender, extending back as far as the first abdominal segment; third to eighth segments flattened and expanded (particularly the basal ones), third, fifth and eighth longer than wide, others quadrate or transverse; ninth segment less flattened, elongate, remaining segments more or less cylindrical, three or more times as long as wide. Head about equal to pronotum in length; frons very oblique, rather smooth; frontal ridge broadly sulcate throughout, diverging gradually towards the clypeus where it becomes rather more abruptly wider, lateral margins of ridge very strong; fastigium verticis parabolic, a little longer than wide, concave above with a distinct parabolic impression and a distinct but fine median carinula which extends back to the vertex but becomes obsolete before the occiput. Eye narrow, elongate, twice as long as wide.

Thorax: Pronotum elongate, laterally compressed, the disc flat with shallow indistinct punctures except near the anterior margin and in the metazona where the puncturation is fine, denser and somewhat rugulose; anterior margin of pronotal disc straight, posterior margin rounded; median and lateral carinae strong, parallel; typical sulcus distinct, cutting the lateral carinae at about two-thirds of the length of the disc, and the median carina a little in front of this point; anterior and median sulci indistinct, the former almost obsolete, crossing the disc at about one-eighth of its

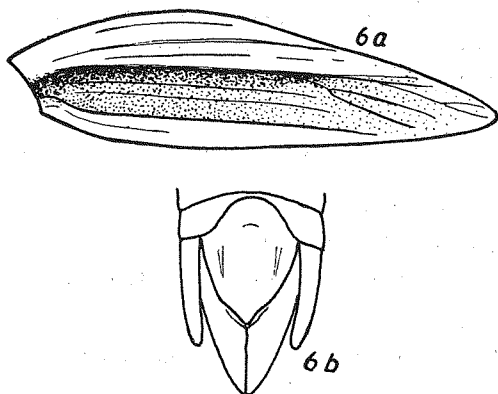


Fig. 6. *Orthochtha lindneri*, n. sp., ♂:
(a) right tegmen; (b) genitalia (dorsal)

length, the latter a little distance before the middle and preceded at about one-third of the length by another faint sulcus which does not extend to the lateral lobes; lateral pronotal lobe about one and a half times as long as high, its lower margin straight, its infero-anterior angle about 110 degrees and its infero-posterior angle sharply acute. Mesosternal lobes about as broad as long, their interspace narrow and constricted in the middle; metasternal lobes not quite meeting behind.

Tegmina and Wings: Abbreviate; tegmina lanceolate (Fig. 6a), extending only as far as the posterior margin of the third abdominal tergum and not as far as the middle of the hind femur; hind wings rudimentary, almost as long as the tegmina.

Abdomen: Unspecialized. Epiproct and cerci as figured (Fig. 6b), the cerci short and slightly curved, exceeding the epiproct but not extending beyond the subgenital plate which is acutely pointed.

Coloration: General colour bright green; antennae blackish, brown at the base and apex; frons, sternum and abdomen brownish-green; eyes and dorsal surface of hind femora brown; a dark fuscous stripe extending from the lateral margin of the fastigium verticis, across the eye and behind it across the side of the head and below the lateral pronotal carina and scapular area of the tegmen; hind knees blackish; hind tibiae and tarsi light red.

Measurements: Length, 24, antenna 12.5, pronotum 3.9, tegmen 8.5, hind femur 15.0, hind tibia 14.1 mm.

Although the genus *Orthochtha* is in need of revision, this new species is quite distinctive. It is nearest to *O. dasyncnemis* (Gerstaecker, 1869)¹, having somewhat similar male genitalia, but it is a little larger and is readily

¹ Or at least the common East African species generally referred by this name.

distinguishable by its abbreviate tegmina. In this last feature, it closely resembles the female of the much larger Tanganyika species *O. dimorpha* Miller, 1929, the male of which is fully alate and has longer cerci.

Distribution: Known only from the type locality.

Duronia tricolor Karny — Kware, 19. I. 1952, 1 ♀.

Paracomacris centralis centralis Rehn — Kware, 17. I. 1952, 1 ♂; Torina, 4—18. III. 1952, 3 ♂♂, 1 ♀.

Gymnbothrus temporalis flexuosus (Schulth.) — Dar-es-Salaam, 11—20. XII. 1951, 1 ♀.

Gymnbothrus gracilis (Ramme) — Ngaruka, 29. I. — 14. II. 1952, 1 ♀.

Truxalini

Truxalis burtti Dirsh — Kware, 17. I. 1952, 1 ♀.

Brachycrotaphus tryxalicerca (Fisch.) — Kware, 17. I. 1952, 1 ♂.

Ochrididia nyuki (Sjöst.) — Kware, 17. I. 1952, 1 ♀.

Pnorisa squalus (Stål) — Dar-es-Salaam, 11—20. XII. 1951, 1 ♂.

Stenohippus xanthus (Karny) — Torina, 4—18. III. 1952, 1 ♂.

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