RESULTATS SCIENTIFIQUES DES MISSIONS ZOOLOGIQUES
DE L’I.R.S.A.C. EN AFRIQUE ORIENTALE
(P. BASILEWSKY ET N. LELEUP, 1957)

LXXIV. - Opiliones

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Tervuren (Belgique).
The two collectors of this expedition to the elevated eastern areas of
tropical Africa, parts of Kenya, Tanganyika and Uganda, have brought toge-
ther approximately 200 vials and more than 900 specimens of well preserved
Opiliones; these can be divided among three families as follows:

**LANIATORES**

- **Fam. Phalangodidae**: 10 species (1 new genus, 6 new species)
- **Fam. Assamidae**: 22 species (6 new genera, 14 new species)
- **Fam. Phalangiidae**: 9 species (6 new species)

Central tropical Africa appears to consist of two fairly distinct faunistic
regions, an eastern one consisting of Kenya, Tanganyika, Uganda and Ruanda-
Urundi, a western one comprising the Congo proper or the Central Congo
region as far as the north-east bank of the Congo river and the eastern bor-
ders of Angola. The eastern region with its great mountain ranges, rifts and
lakes has either been far better explored or is richer in Opiliones than the
western low-lying region with its numerous tributaries and streams draining
northwards and north-westwards into the Congo river itself; the number of
species listed in this paper from the two regions, including new forms, is 199,
166 from the eastern as compared with only 33 from the central and western
region, thus five times as many; the faunae of these two subregions are in
general very different and while they share some genera, have very few spe-
cies in common; furthermore, as Roewer has pointed out (1950, p. 30, 31),
the central and western parts contain no members of the large and ubiqui-
tous suborder of Palpatores while a rich and predominantly montane fauna
of 56 species of this suborder, divided among 12 genera, is now known from
the eastern subregion.

The Opilionid fauna with which this paper deals is derived entirely from
the eastern of these two subregions, the majority having been collected on
the slopes of Mt Kilimanjaro and Meru, Mt Oldeani and Ngorongoro to the
west of them, the Uluguru mountains far to the south with approximately

the same latitude as Dar-es-Salaam, and the Mau Escarpment to the north in Kenya; many of them occur at very high altitudes and the faunal list gives a very good indication of the families, genera and species which may be expected in a typical East African montane environment.

This fauna may be described as tropical montane and agrees with other tropical African faunas in having the Assamiidae the dominant family instead of the Triaenonychidae the members of which form the great majority of the fauna in South Africa and a large constituent of it in Madagascar. The East African subregion may be said to have few relationships with Madagascar (except in having a number of Phalangodidae) while its main relationships with South Africa consists in sharing a number of Phalangodid genera and in the fact that both have a considerable fauna of Palpatores while these are curiously lacking from the whole island of Madagascar as well as from the less elevated Congo region to the west of the East African subregion. The relationships of these various subregions can be illustrated by the following table:

<table>
<thead>
<tr>
<th>Suborder Laniatores</th>
<th>Suborder Palpatores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phalangodidae</td>
<td>Assamiidae</td>
</tr>
<tr>
<td>East Africa</td>
<td>Numerous</td>
</tr>
<tr>
<td>Central or Congo region</td>
<td>Numerous</td>
</tr>
<tr>
<td>Madagascar</td>
<td>Numerous</td>
</tr>
<tr>
<td>South Africa</td>
<td>Fairly numerous</td>
</tr>
</tbody>
</table>

Keys have been given in this paper for subfamilies, genera and species of all forms hitherto described from the region extending across central tropical Africa from the Indian to the Atlantic oceans and consisting of the following political territorial divisions: Kenya, Tanganyika, Uganda, Ruanda-Urundi and the former Belgian Congo; species from Angola or French West African territories are not included although it is recognised that such a separation, especially in the case of Angola, may be an artificial one from the faunistic viewpoint. The whole of this combination of territories is referred to in the headings to the keys as « Central and East Africa ».

The names of the collectors of the material are not given for each separate locality record, it being understood that these well preserved and representative collections are entirely due to the efforts of the two members of the expedition, Mr. P. Basilewsky and Mr. N. Leleup, who made them during the months of April to July, 1957; an exception is made however in the case of Madame Jeanne Leleup & M. N. Leleup who formed a separate collection
on the slopes of Kilimanjaro in February 1956, and they are mentioned by name.

Apart from the pioneer work of Soerensen and Loman, who were the first to describe the Opilionid fauna of East Africa, our knowledge of the tropical African Opiliones is very largely due to Dr. C. Fr. Roewer of Bremen who has described the great majority of the species known from East and Central Africa. His authoritative treatment, with detailed keys to the subfamilies, genera and species, is indispensable to a student of the tropical African harvest-spiders. It can be said that the system laid down for the Assaniidae, the family to which the bulk of the tropical African fauna belongs, is due to the almost single-handed efforts of Dr. Roewer; the species which still have to be described from this region, and there are doubtless many, can be fitted with confidence into the framework already laid down.

I am greatly indebted to Professor Lars Brundin of the Riksmuseum, Stockholm for sending me the paratypes of the new species of Opiliones collected by the Swedish Zoological Expedition to Kilimandjaro-Meru, and described by W. Soerensen in 1910.

My thanks are also due to the Director of the Senckenberg Museum, Frankfurt am Main, who, through the good offices of Dr. O. Kraus of that Institution, loaned me types or syntypes of eight East African species of Opiliones in the Roewer Arachnological Collection.

In conclusion I should wish to thank the authorities of the Musée Royal de l'Afrique Centrale for entrusting me with this notable and interesting material and in particular Mr. P. L.G. Benoit, Chief of the Department of the Invertebrates non Insects at this Institution, for his constant assistance and invaluable advice.
SYSTEMATIC LIST OF OPILIONES KNOWN FROM CENTRAL AND EAST AFRICA

SUBORDER LANIATORES

Family PHALANGODIDAE

Subfamily PHALANGODINAE

*Pyramidops congonis* ROEWER
*schoutedeni* LAWRENCE

*Conomma troglodytes* LAWRENCE
*calae* ROEWER
*orientale* ROEWER
*denticelis* LAWRENCE

*Tetebius latibunus* ROEWER
*Parazalmoxis africana* ROEWER

Subfamily BIANTINAE

*Metabiantes punctatus* (SOERENSEN)
*unicolor* ROEWER
*jeanneli* ROEWER
*trifasciatus* ROEWER
*convexus* ROEWER
*obscurus* n. sp.
*teretipes* n. sp.

*Monobiantes benoiti* n. gen., n. sp.
*armatus* n. sp.

*Eubiantes africanus* ROEWER

Subfamily ERECANANINAE

*Erecanana typus* (SOERENSEN)
*horrida* (SOERENSEN)
*mordax* SOERENSEN
*bicolor* ROEWER
*chelispina* ROEWER
*ruandana* ROEWER
*verrucosa* ROEWER
*defensa* GOODNIGHT
*lentiginosa* n. sp.
*quadridens* n. sp.
Family ASSAMIIDAE

Subfamily HYPOXESTINAE

*Hypoxestus* mesoleucus (SOERENSEN)
  accentuatus (SOERENSEN)
  patellaris (SOERENSEN)
  quadricornis (SOERENSEN)
  levis LOMAN
  obscurus ROEWER
  coxicornis ROEWER
  bituberculatus n. sp.
  trituberculatus n. sp.
  planus GOODNIGHT

*Caelobunus* melanacanthus LOMAN
  fuscus ROEWER
  jeanneli (ROEWER)
  ater n. sp.

*Mecutina* filipes ROEWER
  moshinia ROEWER

*Typhlobunus* troglodytes ROEWER

*Rhabdopygus* maculatus ROEWER
  fuscus ROEWER
  termitarum ROEWER
  rugipalpis ROEWER

*Rhabdopygella* laevis ROEWER
  ferruginea ROEWER

*Congonella* frontalis ROEWER

*Doloressus* cippiatus ROEWER
  ghesquierei (ROEWER)

*Randilea* obscura ROEWER
  scabricula ROEWER

*Findia* atrolutea ROEWER

*Dicoryphus* furvus LOMAN

*Parasesostris* granulatus ROEWER

*Metasesostris* armata ROEWER

*Sesostranus* niger ROEWER
  longipes ROEWER

*Tusipulla* coxalis ROEWER

*Sesostris* gracilis SOERENSEN
  insulanus ROEWER
  maculatus ROEWER
  umbonatus ROEWER

*Sesostrellus* robustus ROEWER

*Lossida* rugosa ROEWER
Lossidocola pachytarsus Roewer
Bwitonatus marlieri Roewer
Leleupiolus marmoratus Roewer
Podagenius longipes Roewer
Mahwella wittei Roewer
Spinixestus rufus Roewer

armatus Roewer

Subfamily SIDAMINAE

Scabrosidama serratichelis n. gen., n. sp.
Lisposidama filipes n. gen., n. sp.
Metasidama ephippiata Roewer

gracilis n. sp.
Ensida minima Roewer
Blantyrea armata Roewer
Congolla hispidopalpus Roewer
Neosidama longipes Roewer

Subfamily ERECINAE

Ereca undulata Soerensen

undulata aberdarensis Goodnight
affinis Soerensen
lata Soerensen
modesta Soerensen
rufa Soerensen
simulator Soerensen
maculata Roewer
differens Lawrence
soerensen n. sp.

Erecella flava Roewer

lutea Roewer
brunnea Roewer
signata Roewer
basilewskyi n. sp.

Ereca marmorata Roewer
leleupi n. sp.
pachytes Roewer
7-dentata Lawrence

Montereca paucidens n. gen., n. sp.
Bundukia nigra n. gen., n. sp.
Erecaia pluridens n. sp.
hartmanni Roewer
Roewereca tenebrosa n. gen., n. sp.
Neobaeorix cornuta n. gen., n. sp.
Metereca abnormis Roewer
  montana Roewer
  asperga Roewer
  papillata Roewer
  simplex (Roewer)
  miruta Roewer

Aberdereca parva Goodnight & Goodnight

Tundabia semicaeca Roewer
  ugandensis Goodnight & Goodnight

Acanthophryssella pectinata (Loman)
  scabra (Soerensen)

Faradjea schoutedeni Roewer

Bulobana octopunctata Roewer
  infuscata Roewer

Merucola granulata Roewer

Buemba filipes Roewer

Termitereca singularis Roewer

Callereca gracilis Roewer

Erecomma montana Roewer

Erebaldia cryptostigma Roewer

Erecops multispina Roewer

Eregonda tenuis Roewer

Erecongoa gracilis Roewer
  granulata Roewer

Ereala armata Roewer

Kakontwea leleupi Roewer

Lubidia leleupi Roewer

Kasaina scabra Lawrence

Subfamily MARUINAE

Congonia spinifrons Roewer

Abanatus beloti Roewer

Celimba parvula Roewer

Subfamily POLYCORYPHINAE

Procoryphus multispinatus Roewer
  straeleni Roewer

Subfamily ACACINAE

Acanthacaca upembensis Roewer
Suborder PALPATURES

Family PHALANGIIDAE

Subfamily LEIOBUNINAE

*Odontoborus kenianus* Roewer
*africanus* Roewer

Subfamily PHALANGIINAE

*Opilio lettowii* Roewer

*Rhamphsinitus bettoni* (Pocock)

*niger* (Soerensen)
*montanus* (Soerensen)
*pictus* (Soerensen)
*aeter* Roewer
*quadrispina* Roewer
*spinitrons* Roewer

*Rhamphsinitus filipes* Roewer
*lettowii* Roewer
*scutiger* Roewer
*salti* Roewer
*brevipalpis* n. sp.
*angulatus* n. sp.

*Dacnopilio pteroniis* (Soerensen)
*scopulatus* n. sp.

*Guruia frigescens* Loman

*levis* Loman
*palmatimana* Pocock
*quadrispina* Roewer
*obsti* Roewer
*longipes* Roewer
*nigra* Roewer
*palpinalis* Roewer
*leucoborus* Roewer
*matengona* Roewer
*ukrewia* Roewer
*tetea* Roewer
*mecutinea* Roewer
*africana* (Karsch)
*mossambica* Lawrence

*Cristina femoralis* (Soerensen)

*arnata* Roewer
*monoceros* Roewer
*vorbecki* Roewer
*quadridens* Roewer


Cheops armatus SOERENSEN
   laevis ROEWER
   minor ROEWER
   albidorsum ROEWER
   longipes n. sp.
Chelibunus africanus ROEWER
   ruwenzorius ROEWER
   furciger ROEWER
   pupillaris n. sp.
Dasylobus africanus ROEWER
   keniatous ROEWER
Odontosoma albofasciaturm ROEWER
   punctatum ROEWER
   lossidanum ROEWER
Ruandella coronata ROEWER
   niger ROEWER
Megistobunus elegans ROEWER
   funereus n. sp.

After completing this work I received from Mr. P. L. BENOIT of the Musée Royal de l’Afrique Centrale at Tervuren the proof sheets of a paper by Dr. C. Fr. ROEWER dealing with a collection of Opiliones most of which came from Ruanda-Urundi and the neighbourhood of Kivu. It was unfortunately too late to incorporate Dr. ROEWER’S new genera and species in my keys or faunal list and I have been obliged to make a separate list which brings the number of species now known from the region in question to 219 species. All the new genera and species described by Dr. ROEWER appear to be distinct from those dealt with in the present paper although my Erecella basilewskyi is near to E. nigropicta ROEWER, differing from it only in its smaller size and different colour pattern. Dr. ROEWER’S new forms are as follows:

Suborder LANIATORES

Family PHALANGODIDAE

Subfamily PHALANGODINAE

Proconomma kahuzi n. gen., n. sp.

Family ASSAMIIDAE

Subfamily SIDAMINAE

Fizihius proprius n. gen., n. sp.

Subfamily ERECINAE

Allereca ruandana n. gen., n. sp.
Leleupereca kivuana n. gen., n. sp.
Ereca unicolor n. sp.
triareolata n. sp.
Lygippulus setipes n. sp.
Irumua caeca n. gen., n. sp.
Metereca concolor n. sp.
kiwuana n. sp.
Erecomma laurenti n. sp.
Erectella nigropicta n. sp.
transversalis n. sp.
biseriata n. sp.
Erecula cincta n. sp.
Comereca rectipes n. gen., n. sp.
Buniabia filipes n. gen., n. sp.
Cereatta kivuensis n. sp.

Suborder PALPATOES
Family PHALANGIIDAE

Cheops teteupi n. sp.
Family PHALANGODIDAE

Key to the African sub-families of Phalangodidae

1. Femur of leg I with numerous long ventral and dorsal spines ............... .......................... Erecaninae
   - Femur of leg I not spined ............................................................................................................. 2
2. Eyes widely separated, at the sides of the flat carapace; pedipalp long and slender .................................................................................................................. Biantinae
   - Eyes on a distinct median tubercle; pedipalps short and stout ........................ 3
3. Tarsi of legs III and IV with a dense ventral scopula ......................................................... Samoinae (Tropical West Africa only)
   - Tarsi of legs III and IV without a scopula; with sparse hairs and setae .... Phalangodinae

Subfamily Phalangodinae

Key to the genera of Phalangodinae (Central and East Africa)

1. Distitarsus of leg II with 2 segments .............................................................................. 2
   - Distitarsus of leg II with 3 segments ....................................................................................... 3
2. Ocular tubercle with a pointed, forwardly bent horn ................................................................. Pyramidops LOMAN
   - Ocular tubercle a broad, blunt cone ......................................................................................... Conomma LOMAN
3. Tarsus I with 3 segments; first and second transverse grooves of dorsal scute parallel ........................................................ Tetebias ROEWER
   - Tarsus I with 6 segments; first and second transverse grooves of dorsal scute not parallel .................................................................................................................. Parazalmoxis ROEWER

Genus PARAZALMOXIS ROEWER

Parazalmoxis africana ROEWER - (Figs. 12, 13).

1 ♂, 6 ♀ ♀ (109403-109408), 1 ♂, 2 ♀ ♀ (109415-109417) and 2 ♀ ♂, 3 ♀ ♀ (109422-109426), Molo, Mau Escarpment, Kenya, 2150-2200 m., collected 11/12-IV-1951; 1 ♂, 1 ♀ (109485-109486), 8 ♀ ♀ and immature specimens (109477-109484), Timboroa, Kenya, 2800 m., collected 10-IV-1957; 1 ♂ (from 109463-109467) Bugiri, Uganda, in vestigial ombrophile forest at 1400 m., 5/8-VIII-1957.

The above specimens agree very well with ROEWER'S description of the types. I add the following observations: granulation of dorsal scute very fine, minute, appearing smooth matt, the transverse grooves defining the areas very indistinct, almost obliterated except the first. A very strong tooth-
like spine at inner apex of pedipalp femur (not mentioned or figured in Roewer's description of the genus). In both sexes of our specimens femur of leg III considerably less sinuate than that of IV. Secondary sex characters appearing on leg IV of ♂ which is stronger and thicker than in ♀, the femur more strongly sinuate, with a ventral row of about 20 small granules which are a little larger and more regular than in the ♀. Genital operculum of ♂ much smaller and relatively narrower, figs. 12 and 13; pedipalp considerably longer and thicker than in the ♀, the two inner apical teeth of segment I of chelicera much larger than in the ♀.

**Subfamily Biantinae**

**Key to the African genera of Biantinae with 3-segmented tarsus I**

1. Tarsus II with 6-9 segments ................................................................. 2
   - Tarsus II with 3-5 segments ............................................................... 3
2. Tarsus II with 6 segments .............................................. Biantantius Roewer
   - Tarsus II with 7-9 segments ......................................................... Biantessus Roewer
3. Tibia of palp with 2-3 ventral spines, femur and patella of palp without
   a ventral spine ................................................................................ Hinzuvius Karsch
   - Tibia of palp with 2.2 or 2.4 ventral spines, femur and patella of palp with
     a ventral spine (except Clinobiantes) ......................................................... 4
4. Tarsus II with 3 segments, distitarsus with 2 segments ....................... 5
   - Tarsus II with 5 segments, distitarsus with 3 segments ..................... 5
5. Tarsus III and IV with 4 segments ............................................ Biantomma Roewer
   - Tarsus III and IV with 5 segments ................................................ Monobiantes Lawrence
6. Dorsal scute with 2 large spines on area IV only .......... Eubiantes Roewer
   - Dorsal scute with a pair of spines, tubercles, or enlarged granules on
     areas III and IV or without ................................................................. 7
7. Leg II 6 times as long as body, much modified, pedipalp femur without
   a spine ................................................................................................... Clinobiantes Roewer
   - Leg II normal, pedipalp femur with a ventral spine ......................
8. Area V with a large spine in the middle, exceeding those on areas III and
   IV, femur of pedipalp with a large spine in the middle .... Biantella Roewer
   - Area V without enlarged spines, or with a row of spines smaller than those
     of areas III and IV, pedipalp with a small subbasal spine ................
     ........................................................................................................ Metabiantes Roewer

Of these genera only Monobiantes, Eubiantes and Metabiantes occur in
Central and East Africa. The conception of Metabiantes has been enlarged
to include forms with either a pair of large or small spines on areas III
and IV, or a pair of enlarged tubercles, or no tubercles at all. Biantantius from
Natal, regarded as a synonym of Spinibiantes in my work on the Madagascar
fauna (1959, p. 88) is here recognised as a distinct genus; the examination of
a considerable amount of material of B. vertebralis shows that in more cases
than not tarsus II has 6 segments while in Metabiantes the number of 5
segments is absolutely constant; the structure of the penis in *Biantanius* is furthermore quite different from that of *Metabiantes*.

*Goodnight* and *Goodnight* in a recent paper (1958, p. 197) have, without giving reasons for their decision, transferred all the species in the genus *Metabiantes* to *Hinzuanius* Karsch. As shown in the above key *Hinzuanius* has very different characters from all other genera of Biantinae and occurs only in Abyssinia and Mauritius. The characters which they quote for *Hinzuanius* are ones which apply to the whole subfamily and have no value for generic distinctions. The animal which has been figured and described as *Hinzuanius (Metabiantes)* jeanneli (Roewer) on page 199 is neither *Metabiantes jeanneli* nor a member of this or any other genus in the subfamily *Biantinae*, as should be obvious from the spination of the pedipalp.

Figs. 14. - 1. *Metabiantes armatus* n. sp., dorsal colour pattern; 2. the same of *Metabiantes trifasciatus* (Roewer); 3 and 4. *Monobiantes benoiti* n. genus, n. sp., tarsus II and IV respectively.

Judging by the characters given in Roewer’s key to the subfamilies this form belongs to the Ibaloniinae; although this subfamily is not known from East Africa, representatives have been found in the Seychelles and perhaps Réunion. It probably represents an undescribed genus of this subfamily; alternatively the locality data may be incorrect.

**Genus MONOBIANTES** n. genus

Differing from other genera of the subfamily in having only 3 tarsal segments on leg II; dorsal surface entirely without enlarged spines; pedipalp tibia with 2.2 ventral spines, patella ventraily with 1 weak spine, femur in
basal third with 1 spine; legs very short and thick, II less than twice as long as body.

Type: *Monobiantes benoiti* n. sp.

**Monobiantes benoiti** n. sp. - (Figs. 3, 4).

*Holotype* ♀ from (109417) Molo, Mau escarpment, Kenya, 2150-2200 m., collected 11/12-IV-1957.

*Colour* of dorsal surface as in *Metabiantes trifasciatus* ROEWER fig. 2, the background yellow with a faint orange tinge, carapace only reticulated black at the sides; ventral surface with coxae almost entirely reticulated black, especially just posterior to coxa IV; genital operculum yellow; sternite adjacent to anal operculum almost entirely black, the remaining ones laterally black, a median longitudinal stripe composed of a narrow black transverse stripe on each segment, the general effect being that of 3 longitudinal black stripes as on dorsum; palps and chelicera pale yellow, legs banded black and yellow.

*Dorsal surface.* Abdomen fairly strongly convex, well raised above the level of carapace, covered with distinct, round, equal-sized, closely contiguous granules, carapace similar but the granules a little smaller, without smooth areas; granules of areas 5-6 rows deep, of free tergites about 3 deep; lateral margin of dorsal scute with 2 distinct, regular rows of granules.

*Ventral surface.* Coxae matt, a few enlarged round granules on anterior margin of I, proximally; sternites with 2-3 rows of distinct granules.

*Chelicera.* Segment I with a few distinct small granules medially, laterally and posteriorly, a few smaller ones in the middle (dorsally) of the distal dorsal swelling; segment II entirely smooth.

*Pedipalp.* Subbasal ventral spine strong, conical or subtriangular, that of patella short and weak; claw not exceeding length of tarsus, the anterior ventral spines considerably shorter than the posterior pair.

*Legs.* All segments short and thickset, without enlarged spines or granules; distitarsus of both I and II with 2 segments, Fig. 3, tarsus IV as in fig. 4. Tarsal segments 3:3:5:5, leg II less than twice as long as body.

*Dimensions.* Length of body 2.6, of leg II 4.8 mm.

*Additional material.* 3 specimens (109400-109402) with the same data as the type.

The species is named in honour of Mr. P. L. G. Benoit, Chief of the Department of the Invertebrates non Insects, at the Musée Royal de l’Afrique Centrale, Tervuren.

**Genus METABIANTES ROEWER**

*Key to the Central and East African species of Metabiantes*

1. Areas I-IV uniformly covered with small granules, or almost smooth .... 2
   - Areas III and IV with a pair of enlarged tubercles or spines ............... 6
2. Dorsal scute and free tergites not granular, almost smooth ....................
   - Dorsal scute distinctly and uniformly granular ................................ 3
   - Dorsal scute and free tergites distinctly and uniformly granular .... 4
   - Dorsal scute distinctly and uniformly granular like Metabiantes trifasciatus ROEWER
3. Dorsum of body uniform yellow or orange .................. unicolor ROEWER
   - Dorsum with symmetrical black markings ........................................... 4

4. Dorsum with 3 deep black longitudinal stripes .......... trifasciatus ROEWER
   - Dorsum variegated with black spots .................................................. 5

5. Leg II 2½ times length of body ................................. obscurus LAWRENCE
   - Leg II 1¼ times length of body ....................................................... punctatus (SOERENSEN)

6. Areas III and IV with a pair of enlarged granules ...... jeanneli (ROEWER)
   - Areas III and IV with a pair of spines ........................................... 7

7. Areas III and IV with a pair of small sharp spines, V in the middle with a similar spine, free tergites without; leg II 3½ times length of body ...
   - Areas III and IV with a pair of large triangular spines, area V and free tergites with a row of 3 similar equal sized spines; leg II 2 4/5 times body length ................................................................. teretipes LAWRENCE
     - Areas III and IV with a pair of spines ........................................... armatus LAWRENCE

Metabiantes trifasciatus (ROEWER) - (Fig. 2).


Dorsal surface of body (based on a specimen from the first record cited above) with pattern as in fig. 2, the dark portions differing in size or less definite than in figure but the general effect the same in all specimens, i.e. three longitudinal stripes or bands formed by a dark patch on each area or tergite, one in the middle, one on each side. A small species with short legs, II about 1¼ as long as body. ROEWER'S length of body which he gives for the type, 1.5 mm, seems rather small for an adult of this genus and our numerous
specimens measure from 2.2-2.4 mm.; otherwise the specimens before us agree well with his description.

Dimensions of ♀. Length of body 2.3, leg II 4.3 mm.

**Metabiantes unicolor** (ROEWER)

1 ♀ (109275-109280), Mt. Oldeani, verst. Est, in bamboo forest at 2350-2500 m., collected 6/9-VI-1957.

This single specimen has the whole of body and appendages uniform orange-yellow, without markings.

**Metabiantes armatus** n. sp. - (Fig. 1).

1 Holotype ♀ (109104), 3 paratype ♀, Tanganyika Terr., Uluguru Mts., Gorge de la Mungula, in humus of transition forest, 1500 m., collected 1/6-VI-1957.

Colour. Dorsal surface as in fig. 1, coxae reticulated black on anterior and posterior margins, yellow in middle; sternites with a narrow blackish lateral stripe, a wide band in the middle yellow; pedipalp yellow, tibia and tarsus blackish; chelicerae yellow; anterior legs dark olive green, posterior ones similar but tibia with 1, metatarsus with 2 distinct yellow bands, all tarsi black.

Dorsal surface. Granules of areas I-V large, distinct, contiguous, 4-5 rows deep, those of carapace smaller and less regular, with several smooth patches; enlarged spines of areas III and IV and free tergites similar, fig. 1, fairly short, very strong, triangular, almost as wide at base as long; free tergites I-III with 2 irregular rows of small round granules and 3 strong spines, laterally to these some large, rather low round granules; lateral margin of scute with a single regular row of about 20 very distinct granules.

Ventral surface. Coxae almost smooth, only I with a row of distinct granules on the anterior margin; sternites with 1-2 irregular rows of small indistinct granules.

Chelicera quite smooth 1-2 extremely minute granules at the base of the dorsal swelling on segment I.

Pedipalp femur with a minute seta above and below the subbasal spine, claw of tarsus fairly short.

Legs long, smooth-matt, without enlarged granules, leg II about 2 2/3 as long as body.

Dimensions: Length of body 3.6, of leg II, 10 mm.

Additional material: 1 ♀ (109054) with the same data as the type.

**Metabiantes obscurus** n. sp. - (Figs. 5-8).

Holotype ♀ (109187), allotype ♀, Tanganyika Terr., Bunduki, Uluguru Mts., Gorge de la Mungula, 1500 m., collected 1/6-V-1957.

♀. Colour. Background yellow brown with pattern of black markings as in *M. teretipes* but the general effect much darker; whole surface of coxae
with black reticulation, sternites almost entirely black, their anterior margins reddish-brown; pedipalps heavily, chelicerae lightly reticulated black; anterior legs almost entirely black, III and IV black, the distal segments with some distinct yellow bands, all tarsi black.

**Dorsal surface** regularly covered with large distinct round granules, these not contiguous, about 4 deep on the areas, no enlarged granules or spines on dorsal scute or free tergites; carapace with similar but smaller granules, its posterior margin almost smooth; lateral margin of scute with a single, rather irregular row of small granules; granules of free tergites 2-3 rows deep.

Figs. 5-11. - *Metabiantes obscurus* n. sp.; 5 and 6. genital operculum of ♀ and ♂ respectively; 7. penis; 8. apex of the same enlarged. *Eubiantes africanus* RÖWEr, 9. penis; 10. apex of the same enlarged; 11. dorsal colour pattern.
Ventral surface. Coxae with only a few scattered granules, especially on the anterior margin of I, for the most part smooth; genital operculum as in Fig. 5.

Chelicerae. Both segments smooth except for 1 or 2 minute granules at the base of the dorsal distal swelling on segment I.

Pedipalps normal, subequal to body length, claw of tarsus long and slender.

Legs. Thickset and fairly short, anterior legs not particularly slender, patella III a little larger and more inflated than those of other legs, leg II 2\(\frac{1}{3}\) as long as body.

Dimensions. Length of body 3.4 of leg II 8 mm.

♀ not differing at all from the description of the ♀ except in the relatively slightly longer legs and shape of genital operculum, Fig. 6; penis as in figs. 7, 8.

Dimensions. Length of body 3, of leg II 7.5 mm.

Eighteen large eggs were found in the body of one of the paratype females.


This is the most abundant species in the collection from the Uluguru Mts and is probably fairly closely related to M. punctatus (Sørensen).

Metabiantes teretipes n. sp. - (Figs. 14-17).


♂. Colour. Dorsal surface as in fig. 14, coxae blackened at their apices, IV in the middle posteriorly, genital operculum in anterior half, coxa II with a narrow black bar on each side of sternum; sternites with a narrow blackish anterior margin; anterior legs banded blackish, III and IV as follows: femur yellow with narrow basal and apical rings; tibia black with wide yellow median band, metatarsus yellow with subbasal and subapical black bands, tarsi black; chelicerae yellow, pedipalps with blackish infuscation, stronger on tarsus, the femur sometimes almost yellow.

Dorsal surface. Abdomen hardly raised above the level of carapace, only slightly convex, carapace entirely covered with regular granules but fewer and smaller than those of areas which all have fine, close granulation: areas III and IV with a pair of small, sharp, subequal, close-set spines, V with a similar slightly smaller spine in the middle forming with the 4 others a re-
regular pentagon; free tergites with a row of 3-4 slightly enlarged spiniform granules, lateral margins of scute with a single regular row of granules.

**Ventral surface.** Sternites with 1-2 rows of low, small granules; coxae II-IV with rows of granules in anterior half, the posterior half for the most part smooth, those on the anterior margin of I, especially proximally, distinctly larger than the others.

**Chelicera.** Both segments quite smooth.

**Pedipalps** normal, claw exceeding tarsus in length.

**Legs** long and slender, especially I and II; tibia-tarsus of II slender, the whole leg 3½ times body length; III and IV long, distinctly thicker than anterior ones, especially III; patella III unusually large, swollen, Fig. 15, of IV also incrassate but less so than in III; tarsal segments of II slender, second segment more than ½ first, Fig. 17.
Dimensions. Length of body 3.5, of leg II 12.5 mm. The $\delta$ differing from the $\varphi$ only in having leg II short and thicker, Fig. 16, patella III less swollen, pedipalps a little shorter.

Dimensions. Length of body 3.5 of leg II 9.5 mm.

Additional material: 3 $\varphi$ $\varphi$ from (109179-109208) Tanganyika Terr., Bunduki, Uluguru Mts., Gorge de la Mungula, 1500 m., in humus of transition forest, collected 1/6-V-1957.

Genus **EUBIANTES** Roewer

**Eubiantes africanus** Roewer - (Figs. 9-11).

4 $\delta$ $\varphi$ (109179-109208) and 7 $\delta$ $\varphi$ (109055-109060) Tanganyika Terr., Bunduki, Uluguru Mts., Gorge de la Mungula, 1500 m., collected 1/6-V-1957; 3 $\delta$ $\varphi$ (109109-109112), Bunduki, Uluguru Mts., 1300 m., collected 7-V-1957; 10 $\delta$ $\varphi$ (109019-109023 and 109004-109008), Bunduki, Uluguru Mts., Moy-Mgeta, 1300 m., collected 30-IV/2-V-1957; 1 $\varphi$ from (109452-109461), Vallée de l’Ululu-Ndogo, 1500 m., collected 8-V-1957.

Colour pattern of dorsal surface of a male specimen taken from the first record above, as in fig. 11, penis as in figs. 9, 10. This is a robust species, larger than any of the species of *Metabiantes* except *armatus* and *teretipes*.

The species is not heavily pigmented and the pattern, as in other Bian-tids, is subject to considerable individual variation. Roewer’s type, with which it has been compared, shows little trace of pigmentation after 48 years in alcohol except on the legs. Nevertheless the specimens agree so well with the type in all other details (granulation and spination) that I have no doubt as to the identity of the specimens recorded above.

Subfamily **Erecananinae** Roewer

Genus **ERECANANA** Strand

**Erecanana lentiginosa** n. sp. - (Figs. 19-21).

Holotype $\varphi$ (109123), 5 paratypes $\varphi$ $\varphi$, Bunduki, Uluguru Mts. 1300 m.; collected 7-V-1957.

Colour. Background light yellow or cream with well defined blackish markings; dorsal surface with symmetrical pattern of black markings, an anteriorly pointed one on each side of ocular tubercle sharply defined, some black patches in posterior half of scute, most of the granules black; free tergites I and II with a transverse row of 5-6 distinct black dots, III with some larger less distinct black markings, enlarged spines mostly yellow (some blackish at base); ventral surface light yellow, coxae black at their apices, sternites each with a transverse row of 4-7 small black dots, anal operculum and two adjacent sternites each with a large median and lateral black spots; chelicera (except claws) with blackish reticulation, palpi yellow, feebly banded blackish. Leg I blackish, femur with a middle, tibia with
an apical yellow ring, femora III and IV black with a yellow middle and apical ring, remaining segments with indistinct bands, tarsi mostly white, leg II entirely reddish-brown, femur with an indistinct band, remaining segments without, apex of metatarsus black, tarsi blackish.

Dorsal surface. Anterior margin of carapace with a row of 8-9 small blunt conical granules, not projecting beyond the margin, continued on to ocular tubercle, forming its anterior boundary (14-15 granules in all); behind this row at antero-lateral angle of carapace a longer pointed granule; in

middle of anterior margin a long blackish conical granule projecting forwards; ocular tubercle as in fig. 19 seen from the side; areas each defined by a transverse regular row of minute granules, I-IV with a pair of widely separated enlarged conical granules, those of II largest, area V in middle of posterior margin with an elongate conical granule, a smaller one on each side, free tergites with a row of 3 similar enlarged granules, some shorter ones between and lateral to these.

**Ventral surface.** Coxae coarsely granular, anterior distal margin of I with 3-4 elongate conical granules; sternites with a single regular row of small granules, 6-7 of them (blackened) larger than the rest; anal operculum covered with small granules.

**Chelicera** as in fig. 21, only segment II with 3-4 extremely minute granules.

**Pedipalp.** Trochanter ventrally with 1 small spine (half length of basal spines of femur); femur with 2 large basal spines, a large inner and small outer spine near apex; patella with 1 inner, 1 outer spine, the inner much longer and stronger; tibia and tarsus with 2 spines on each side.

**Legs.** Leg I as in fig. 20, patella with 2 ventral elongate granules, two dorsal rows of 5-6 spines; tibia with two dorsal rows of 5-6 spines, a ventral row of 4 unequal spines, metatarsus with a comb-like row of 13-15 much smaller elongate granules on dorsal and ventral surface; legs III and IV from femur to tibia with a dorsal and ventral row of elongate granules, those of femora much larger, leg II with much smaller granules, those of tibia minute. Seen from above coxa IV with 3 long papilliform granules on anterior margin, coxa II with 1 similar granule on posterior margin; trochanters II and III with 1, trochanter IV with 2 elongate granules on anterior margin; tarsal segments 2:2:4:4.

**Dimensions:** Length of body 3.8, leg I 3.8 mm.

Judging by their general appearance, the absence of teeth on the chelicera and comparative shortness of leg I, all the types are females. One obviously immature specimen has very small weak spines on basal segments of legs II-IV.

**Erecanana quadridens** n. sp. - (Figs. 18, 22-24).

**Holotype 1 ♂ (109173) Summit of Kidunda, Uluguru Mts., 1800-1950 m., Tanganyika, collected 3-V-1957.**

**Colour.** Leg I, dorsal and ventral surfaces of body encrusted with fine soil, the remainder normal; background of dorsal surface yellow-brown, mottled with large blackish patches (mostly at the sides), long spines of free tergites blackish with yellow tips; ventral surface earthy yellow-brown, chelicerae and pedipalps dirty yellow, reticulated blackish-green; all tarsal segments of legs almost white, the small basal segment blackish; all trochanters yellow, femur of leg I with a middle yellow-band, the rest blackish, femur of leg II black with narrow basal and subapical yellow bands, patella-metatarsus
blackish, leg III similar but patella and tibia with an apical yellow band, metatarsus widely yellow in middle, leg IV similar, but metatarsus yellow with a narrow black apical ring.

Dorsal surface. Anterior margin of carapace with a regular row of 11-13 long papilliform granules on each side, Fig. 24, a little behind this row at antero-lateral angle of carapace a single cylindrical papilla longer than the others; ocular tubercle as in fig. 22 seen from the side, the row of 6 elongate papillae on each side meeting or overlapping those of the anterior margin of carapace; areas I-IV each with a pair of widely separate, enlarged, but not cylindrical granules, posterior margin of area V in middle with 1 elongate papilla; tergites I-II with a row of 3 very long papilliform pointed granules connected by much shorter granules.

Ventral surface. Coxae covered regularly with coarse round granules, a few on anterior distal margin of I a little larger than the rest; sternites with a row of round conspicuous granules raised well above the level of cuticle.

Chelicera. Segment I quite smooth, II with 4 large sharp teeth on anterior margin, Fig. 23, the basal a little more mesial than the others.

Pedipalp. Trochanter ventrally with 1 small, femur with 4 large subequal and equidistant spines; patella with 1 outer, 2 inner spines, tibia and tarsus with 3 on each side, the distal pair of tarsus much shorter than the others.

Legs. Leg I (Fig. 18): femur with 11 ventral papilliform spines, all except the distal 3 more than twice diameter of femur, 14 ventral spines, all except distal 2-3 equal in length but much shorter than ventral spines; patella with about 7 dorsal, 5 ventral papilliform spines; tibia and metatarsus with irregular rows of elongate spines dorsally and ventrally, trochanter with 1 dorsal, 4-5 ventral elongate spines; legs II-IV smooth matt, without enlarged granules. Tarsal segments 2 : 2 : 4 : 4.

Dimensions: Length of body 3.5, of leg I ± 4.5 mm.

This large species differs from all others of the genus in having all segments of legs II-IV smooth matt, without any enlarged or elongated granules.

Key to the species of Erecanana (Central and East Africa)

1. Pedipalp-trochanter with 2 ventral spines ........................................... 2
   - Pedipalp-trochanter with 1 ventral spine ......................................... 3

2. Segment I of chelicera with a dorsal tooth; pedipalp femur with 6 ventral spines ................................................................. typus (SOERENSEN)
   - Segment I of chelicera without a dorsal tooth; pedipalp femur with 4 ventral spines ............................................................. chelispina ROEWER

3. Pedipalp-tibia with 1.2 or 2.2 spines .................................................. 4
   - Pedipalp-tibia with 3.3 spines .......................................................... 6
4. Body with numerous small black dots ........................................... *lentiginosa* n. sp.
   - Body uniformly coloured .......................................................... 5

5. Femur of leg I with spines shorter than diameter of the segment; pedipalp-patella with 0, pedipalp-tibia with 1 lateral spine; coxae not granulated in middle ........................................... *defensa* GOODNIGHT
   - Femur of leg I with spines longer than diameter of segment; pedipalp-patella with 1, pedipalp-tibia with 2 lateral spines, coxae covered with granules ........................................... *ruandana* ROEWER

6. Segment I of chelicera with a row of 8 ventro-lateral spines ........................................... *mordax* (SOERENSEN)
   - Segment I of chelicera with a row of 2-3 ventro-lateral spines or with none .......................................................... 7

7. Patella of leg I with 2 medial spines ........................................... *horrida* (SOER.)
   - Patella of leg I with 3-6 medial spines ........................................... 8

8. Segment of I of chelicera without teeth, anterior surface of II with 4 large sharp teeth; legs II-IV smooth, ungranulated ........... *quadridens* n. sp.
   - Segment I of chelicera with 2-3 ventro-lateral spines, anterior surface of II with 1 large sharp tooth or 4 minute ones; legs II-IV with coarse granules .......................................................... 9

9. Chelicera with 1 large tooth on anterior surface of segment I; tarsus of leg I dorsally with a row of 5 elongate papilliform spines .... *verrucosa* ROEWER
   - Chelicera with several minute teeth on anterior surface of segment I; tarsus of leg I dorsally covered irregularly with short round granules .... ........................................... *bicolor* ROEWER

Family ASSAMIIDAE

*Key to the subfamilies of Central and East Africa*

1. Distitarsus of leg I with 2 segments ........................................... 2
   - Distitarsus of leg I with 3 segments ........................................... *Acacinae*

2. Stigmata visible near posterior margin of coxa IV ...................... *Hypoxestinae*
   - Stigmata hidden beneath coxa IV ........................................... 3

3. Pedipalp femur with long ventral spines ........................................... 4
   - Pedipalp femur with short ventral teeth ........................................... 5

4. Upper anterior margin of carapace without a median spine .... *Sidaminae*
   - Upper anterior margin of carapace with a median spine ........... *Mariinae*

5. Upper anterior margin of carapace without a median spine .... *Erecinae*
   - Upper anterior margin of carapace with a median spine ....... *Polycoryphinae*
Subfamily **Hypoxestinae** ROEWER

*Key to the genera of Hypoxestinae (Central and East Africa)*

1. Tarsus I with 4 segments ................................................................. 2
   - Tarsus I with more than 4 segments ........................................... 3
2. Distitarsus of leg II 2-segmented, eyes absent ...... **Typhlobunus** ROEWER
   - Distitarsus of leg II 3-segmented, eyes present ............ **Lossida** ROEWER
3. Tarsus I 5 or 6 segmented .................................................................. 4
   - Tarsus I with more than 6 segments .......................... **Podauchenius** ROEWER
4. Area I of scute not divided by a median furrow ................................. 5
   - Area I only or areas I-III divided by a median furrow ........... 15
5. Areas I-V and free tergites I-III unarmed ........................................ 6
   - At least area III of scute or free tergite III with a pair of spines or tubercles ......................................................................................................................... 7
6. Anterior margin of carapace with 2 lateral tubercles, pedipalp femur without an inner apical spine ......................................................... **Hypoxestus** ROEWER
   - Anterior margin of carapace with a large inner and 4 much smaller outer tubercles, pedipalp femur with a small inner apical spine .......................................................... **Lossidacola** ROEWER
7. Only free tergite III armed .......................................................... **Rhabdopygus** ROEWER
   - Free tergites II and III, or I, II and III armed .................. 8
8. Only free tergites II and III armed .................................................. 9
   - Free tergites I, II and III armed .................................................. 11
9. Areas I-V of scute armed ................................................................. **Findia** ROEWER
   - Only areas I-III, or II and III of scute armed ....................... 10
10. Areas II and III armed, tarsal segments 6:10/11:7:8 ......................
    - ........................................................................................................ 11
11. Areas I-IV with weak tubercles .................................................. **Congonella** ROEWER
    - All or some of these areas with powerful spines ...................... 12
12. Spines of area III longer than those of the other areas ..................... 13
    - Spines of area III not longer than those of the other areas .......... 14
13. Area III with a second pair of shorter spines between the main pair, coxa IV thickly spined on anterior margin .................. **Spinixestus** ROEWER
    - Area III with only 2 spines, coxa IV unarmred on anterior margin ........
      ............................................................................................... **Doloressus** ROEWER (= **Ealabius** ROEWER)
14. Areas II-IV with a pair of lateral as well as median spines, tarsal segments 5:9:5:6 (termitophilous) .................. **Leleupiolus** ROEWER
    - Areas II-IV with only a median pair, tarsal segments 6:13:7:8 ........
      ........................................................................................................ 15
15. Only area I divided by a median furrow ........................................ 16
    - Areas I-III divided by a median furrow ........................... **Bwitonatus**

33
16. All free tergites unarmed .................................................. *Randilea* Roewer
   - At least one of the free tergites armed ........................................ 17

17. **Free tergites I and II unarmed, III with a pair of powerful spines** .... 18
   - Free tergites I-III armed ............................................................ 19

18. Area I of scute unarmed, ocular tubercle granular above ......................
   ........................................................................... *Caelobunus* Loman (= *Metarhabdopygus* Roewer)
   - Area I armed with a pair of spines or tubercles, ocular tubercle with a
     pair of spines ........................................................................... *Dicoryphus* Loman

19. Areas IV and V unarmed, pedipalp femur with a spine at inner apex ....
   ..................................................................................................... *Parasesostris* Roewer
   - At least area V with spines ........................................................... 20

20. Areas I and II with 4 powerful spines ........................................... *Metasesostris* Roewer
   - **Areas I and II with a pair of tubercles** ........................................ 21

21. Area IV entirely unarmed ......................................................... *Sesostranus* Roewer
   - Area IV with a pair of tubercles or spines ...................................... 22

22. Ocular tubercle only granulated .................................................. 23
   - Ocular tubercle with a pair of slender spines ................................. *Tusipulla* Roewer

23. Operculum anale unarmed, only granular ..................................... *Sesostris* Soerensen
   - Operculum anale with a pair of spines .......................................... *Sesostrellus* Roewer

In the above key *Ealabius* Roewer is regarded as a synonym of *Doloressus*
Roewer while for reasons given on p. 28 *Metarhabdopygus* Roewer becomes
a synonym of *Caelobunus* Loman. *Ealabius* is identical in its armature and
most other respects with *Doloressus* from which it only differs in having one
segment less on tarsus IV, 6 instead of 7.

**Genus HYPOXESTUS** Loman

Although in general the sexes are very similar in appearance they can be
distinguished by the following features: the genital operculum is usually
wider in the q; the third and fourth legs are thicker in the q; the chelicerae
are wider and longer, seen *in situ* from above the dorsal swelling of segment
I is a little more developed in the q; the colouring is slightly different.
Penis very long and slender, its head fairly abruptly widened and subqua-
drate, the shape characteristic for the genus, its sides with 3-4 fairly robust
spines, the anterior more slender; another pair of small slender spines on
ventral surface.

The species are separated by rather vague characters and it is difficult
in some cases to decide to which species a given specimen should be assigned.
The pedipalp femur of *mesoleucus* for instance appears to be hardly more
strongly granular on its dorsal surface than it is in any other species and
from an examination of the types I am inclined to think that *mesoleucus*
merely represents the immature form of *accentuatus*. *H. obscurus* Roewer
also does not seem to be very different from *H. levis* Loman.
A key to the species of Hypoxestus Loman

1. Coxae I-IV with a large curved tooth at their anterior and posterior apices ................................................................. *coxicornis* ROEWER
   - Coxae without such teeth .......................................................................................................................... 2
2. Free tergite III with 2 or 3 enlarged spine-like granules ..................... 3
   - Free tergites without enlarged spine-like granules ............................................................... 4
3. Free tergite III with 2 enlarged granules .......... *bituberculatus* LAWRENCE
   - Free tergite III with 3 enlarged granules ............ *trituberculatus* LAWRENCE
4. Ocular tubercle irregularly covered with small granules; areas I-V and free tergites granulated ........................................... 5
   - Ocular tubercle with 4 small granules on each side, areas I-V and free tergites smooth matt ................................................. 6
5. Surface of carapace smooth, the groove forming its posterior boundary very deep, curved strongly forwards in a semi-circle; large elongate species, the sides parallel and straight ................................................................. 6
   - Surface of carapace with irregular granulation, the posterior groove less deep, not strongly curved, directed more laterally than forwards; small species, not elongate ........................................................................................................ 7
6. Chelicera very large, segment I with a very strong dorsal enlargement, granular; first transverse groove of scute straight; areas III and IV without a pair of enlarged granules ......................... *patellaris* (SOERENSEN)
   - Distal dorsal enlargement of segment I of chelicera slight; first transverse groove of scute forming an angle anteriorly in the middle; areas III and IV with a pair of enlarged granules ........... *planus* GOODNIGHT & GOODNIGHT
7. Pedipalp femur granulated dorsally ............................... *mesoleucus* (SOERENSEN)
   - Pedipalp femur smooth dorsally ....................................................................................................................... 8
8. Distal dorsal swelling of segment I of chelicera granulated ......................
   - Distal dorsal swelling of segment I of chelicera smooth ................................................................. 9
9. Areas I-V and free tergites thickly and irregularly granular ......................
   - Areas I-V and free tergites each with a transverse row of small granules ............................................................... 10

GOODNIGHT and GOODNIGHT (1959) have reduced Randilea to the synonymy of Hypoxestus but although these genera are evidently related I prefer to retain Randilea as a separate genus. It differs from Hypoxestus in having area I very distinctly divided, in having a pair of enlarged granules (tubercles) on areas III and IV, and a constant number of 5 segments for tarsus I (in Hypoxestus it is 5 or 6, more often 6). The granulation of Randilea is much stronger and coarser.

*Hypoxestus planus* GOODNIGHT and GOODNIGHT seems to key down to near *patellaris* (SOERENSEN) but judging by the joint authors figures of the two species (1959, p. 209, figs. 9, 10), which are presumably drawn to the same scale, they differ very greatly in size. This however is not in accord
with the dimensions given for the respective types, which are 5.8 and 6.2 mm for *patellaris* and *planus* respectively; both are therefore large species not differing greatly in size.

*Hypoxestus holmi* GOODNIGHT and GOODNIGHT I am unable to include in the genus; as indicated by the authors it differs from the other members by possessing a set of characters found in no other species. I do not think it belongs to *Hypoxestus* at all but seems to be related to *Lossidacola* except in having 6 instead of 5 segments for tarsus I. The pedipalp in the figure of the type is extremely short and high with unusually large ventral teeth. There seems to be a considerable discrepancy between the figures of the male type in lateral and dorsal view (figures 7 and 8).

Figs. 25-31. - *Hypoxestus bituberculatus* n. sp., 25. chelica: a from inner side; 26. penis. *Hypoxestus accentuatus* SØRENSEN; 27. genital operculum of $\delta$. *Hypoxestus obscurus* ROEWER; 29 and 30. genital operculum of $\delta$ and $\varphi$; 31. penis.
**Hypoxestus accentuatus** (Soerensen) - (Figs. 27, 28).

1 $\delta$, 2 $\varphi$ (108841-108843) 4 $\varphi$ (108848-108851) and 4 $\varphi$ (108901-108904), N.W. slope of Mt. Meru, Olkokola, at 2600 m., Tanganyika Terr., 3-VII-1957; 1 $\varphi$ (109624) Alpine prairie, South slope of Kilimanjaro at 4600 m., Tanganyika Terr., 18/20-VII-1957; 1 $\delta$, 2 $\varphi$ (109591-109593) in decomposed tree of montane forest, Kilimanjaro, N. of Marangu, on S.E. slope at 2300 m., 15-VII-57; 1 $\delta$ (108858) at the source of the Latia in savannah and Hagenia vegetation, Olkokola, Mt. Meru on N.W. slope at 2900 m., 27/28-VI-57; 4 $\delta$ $\varphi$ (108905-108954) and 1 $\delta$ (118554) in leaf litter under Hagenia, Olkokola, Mt. Meru, N.W. slope at 2600 m., 3-VII-57; 1 $\delta$ (108794-108803) in wooded ravine, Olkokola, Mt. Meru on N.W. slope at 2750 m., 25-VI-57; 5 $\delta$ $\varphi$ (108787-108792) with the same data as the preceding record; 1 $\delta$, 5 juv. (108737-108742) at source of the Latia, Olkokola, Mt. Meru on N.W. slope, at 2750 m., 25/26/30-VI-1957; the following with same data as the preceding record: 1 $\delta$, 1 $\varphi$ (108774-108775); 1 $\delta$, 1 $\varphi$ (108776-108783); 2 $\varphi$ $\varphi$ (108757-108758); 2 $\varphi$ $\varphi$ (108753-108754); 2 $\varphi$ $\varphi$ (108751-108752); $\delta$ $\varphi$ (108961-108970); 1 $\delta$ from (108859-108870), Mt. Meru, Olkokola, versant N.O. at 2900 m., in Hagenia Savannah, 27/28-VI-1957. Genital operculum of $\delta$ as in fig. 27; penis as in fig. 28.

**Hypoxestus mesoleucus** (Soerensen)

6 $\delta$ $\varphi$ (109317-109322) in montane forest on east of Mt. Oldeani, at 2300 m., Tanganyika Terr., 13-VI-1957; 1 $\delta$ (108771), at the source of the Latia river, Mt. Meru, Olkokola towards the Northwest at 2750 m., 25/26-VI-1957; 1 $\delta$ (108985) Mt. Meru, towards the North-west, at 2700 m., 26-VI-1957.

**Hypoxestus obscurus** Roewer (Figs. 29-31).

32 $\delta$ $\varphi$ (109516-109545) North of Marangu, towards S.E., Kilimanjaro, at 2250 m., Tanganyika Terr., 19-VII-1957; 2 $\delta$ $\delta$, 2 $\varphi$ $\varphi$ (109565-109568) with the same data but at 1600-1750 m., 13/20-VI-1957; 2 $\delta$ $\delta$, 2 $\varphi$ $\varphi$ (109550-109553) with the same data as the preceding record. Genital operculum of $\delta$ as in Fig. 29, of $\varphi$ as in Fig. 30; of penis as in Fig. 31.

**Hypoxestus patellaris** (Soerensen)

$\delta$ $\varphi$ (109577-109579) subalpine prairie, N. of Marangu, towards the S.E. at 3000 m., Kilimanjaro, Tanganyika Terr., 16-VII-1957; 1 $\delta$ (109348-109350) in montane forest of Ngorongoro, 2200 m., Tanganyika Terr., 11-VI-1957.

This is a much larger species than any other of the genus and quite distinct in other respects.

A large $\delta$ from a series of 2 $\delta$ $\delta$, 10 $\varphi$ $\varphi$ paratypes, kindly loaned me by the Director of the Naturhistoriska Riksmuseet of Stockholm, measured 8.8 mm including the chelicerae, 6.8 mm without these appendages.

The body is elongate, with the sides almost completely parallel; the first groove separating the carapace from area I is very deep, curved strong-
ly in a semicircle forwards more than sideways, raising the smooth carapace well above the surrounding area. Anterior margin of carapace with the outer of the two lateral tubercles obsolete, less than $\frac{1}{2}$ the length of the inner one; median tubercle $\frac{2}{3}$ length of inner lateral but considerably wider, triangular.

Chelicera very large and swollen, distal dorsal enlargement of segment I raised very high with a few small granules on its inner half, almost smooth on outer half, the baso-lateral granule small; dorsum of segment II with a large, rounded, backwardly projecting swelling basally.

Pedipalp femur with 2 irregular rows of small but distinct granules dorsally, ventrally with a regular row of 10 small equal-sized teeth occupying almost its entire length; trochanter with a large blunt ventral tooth, much larger than those of the femur.

**Hypoxestus levis** Loman


**Hypoxestus trituberculatus** n. sp. - (Figs. 32-35).

*Types*, 1 ♂ holotype (109385), 2 ♂ ♀ paratypes, prairie with *Helichrysum*, Mt. Hanang, south slope at 2900 m., Tanganyika Terr., 23/26-V-1957.

♂. **Colour.** Dorsal surface with predominantly blackish reticulation, areas I-V mostly black, the divisions of the areas yellow, ocular tubercle blackish with a round yellow marking between the eyes, a blackish ( )-shaped marking on each side of carapace; free tergites blackish with a narrow transverse anterior yellow stripe, enlarged granules of III yellow; coxae yellow but darker distally, sternites yellow with a narrow blackish anterior and posterior margin, without a wide median blackish band; pedipalps and chelicera predominantly yellow, the former indistinctly tinged with black; coxae and trochanters of legs I-IV yellow but coxa IV blackish, legs blackish, femora and tibiae with a narrow, metatarsi with a wide, yellow band in middle.

**Dorsal surface.** Anterior margin of carapace with the outer of the paired lateral tubercles half as long as wide as the inner one, subequal to middle one. Ocular tubercle above with uniform small granules, carapace with only a few scattered ones, almost smooth; area I with a patch of scattered granules at the sides, II-IV with 2 irregular rows of small granules; area V and free tergites I and II with one row of small granules, those of II more or less duplicated, III with a row of 3 large, triangular, equally spaced spines, between these small granules about 3 rows deep but irregularly arranged. Lateral margin of scute with an irregular duplicated row of small granules.
Ventral surface. Coxae with fairly uniform but not dense granulation; sternites with one regular row of small granules; genital operculum, fig. 34, longer than wide, almost trapeziform, with about 27 round tubercles and setae. Penis as in fig. 35.

Figs. 32-37. *Hypoxestus itituberculatus* n. sp., 32. pedipalp-femur from inner side; 33. chelicera from outer side; 34. genital operculum of ♂; 35. penis. *Hypoxestus hituber
culatus* n. sp.; 36. pedipalp-femur from inner side; 37. genital operculum of ♂.

Pedipalp. Femur as in fig. 32 seen from inner side, 6-8 very small weak granules above, a small obsolete granule at inner apex, patella with a similar one at each side; inner margin of tibia with 3 short alternating with 2 long spines, outer margin with short, long, short spines; tarsus with 2 stout spines on each side, a third much weaker basal one.
Chelicera with the dorsal swelling of segment I rounded, covered with small, well-separated granules, fig. 33.

Legs with close, regular granulation as far as tibia; femur IV strongly sinuate basally seen from above, the others normal. Tarsal segments 6:9:10:7:8.

Dimensions: Length of body 5.4, pedipalps 4.5 mm.

Additional material 1 ♂, 1 ♀ (109397-109399) in tall undergrowth with Protea, south slope of Mt. Hanang at 2500 m., Tanganyika Terr., 26-V-57; 1 ♀ from (109323-109332) Mt. Oldeani, verst. Est in montane forest at 2300 m., 13-VI-1957.

The species is related to H. quadricornis (Soerensen) but differs mainly in having 3 large distinct spines on free tergite III.

Hypoxestus bituberculatus n. sp. - (Figs. 25, 26, 36, 37).

Holotype ♂ (109260), allotype ♀ (109261) in bamboo forest, E. slope of Mt. Oldeani, at 2350-2500 m., Tanganyika Terr., 6/9-VI-57.

Same date, 13 ♀, paratypes.

♂. Colour predominantly yellow, some blackish reticulation at antero-lateral angles of carapace and a blackish crescentic marking on each side of carapace; area V and free tergites I and II with a narrow transverse blackish stripe, sternites yellow, a black spot in the middle forming an ill-defined median stripe, the sides blackish. Palpi and chelicera yellow, femur of palp with broad blackish apical and basal bands. Legs predominantly yellow with some ill-defined darker bands.

Dorsal surface. Anterior margin of carapace with a row of small granules, ocular tubercle dorsally and carapace with fairly uniform small granules. Outer of paired lateral tubercles very short, bluntly rounded, half as long as the pointed inner one; median tubercle large, only a little shorter than the inner lateral. Areas I-IV with granules 3-4 rows deep, V and free tergites I and II with 1 row, irregularly duplicated in II; free tergite III with a pair of triangular enlarged granules (smaller than those of trituberculatus), with 1 or 2 enlarged and pointed but much smaller granules between them; lateral margin of scute with the row of granules obsolete or a single row of very small obscure granules.

Ventral surface. Coxae with small granules, those of IV well separated and reduced in size; sternites with a single row of very small indistinct granules. Genital operculum, Fig. 37, subtriangular, with 15 setae much longer than those of trituberculatus and not rising from such large tubercles; penis as in fig. 26.

Pedipalp. Femur as in fig. 36 seen from inner side, with a few obsolete granules dorsally; patella unarmed, tibia with 2 inner and 1 long outer spine ventrally in addition to some much smaller teeth.

Chelicera. Dorsal enlargement of segment I smooth above, a few scattered granules at the sides; outer side at its base with a fairly large triangular tubercle, Fig. 25.
Legs. Femur IV sinuate at base, legs with fine, close, matt granulation to tibia. Tarsal segments 6:8-10:7:8.

**Dimensions**: Length of body 5.1, pedipalps 4 mm.

♀. Colouring a little darker except the median black stripe of the under surface which is much weaker. Legs III and IV sinuate at their bases, a little more slender than in the ♂. In all other respects resembling the ♂. Genital operculum not wider than in ♂.

**Dimensions**: Length of body 6.5, pedipalps 4 mm.

**Additional material**: 1 ♀ (109378), 1 ♂ (109372) and 1 ♀ (109391-109392), prairie with *Helichrysum*, Mt. Hanang, Southern slope at 2400 m., Tanganyika Terr., 22/30-V-57; 20 ♀ ♂ (109295-109314) montane forest Mt. Oldeani at 2300 m., Tanganyika Terr., 10-VI-57.

The relationships of the species lie with *accentuatus* (SOERENSEN) and *levis* LOMAN.

**Genus CAELOBUNUS** LOMAN


I have here considered RÖWEER’s *Metarhabdopygus jeanneli* as a member of the genus *Caelobunus* since it differs from it only in having the distal dorsal swelling of the chelicera granulated and also the convex surface of the ocular tubercle granulated while that of *Caelobunus* is concave and smooth in the middle. *Metarhabdopygus* RÖWEER thus becomes a synonym of *Caelobunus* LOMAN.

**Key to the species of Caelobunus**

1. Segment I of chelicera smooth above; ocular tubercle concave, with a few granules at the sides ................................................................. 2
   - Segment I of chelicera granular above; ocular tubercle convex, its dorsal surface covered with granules ............................................................. 3

2. Background colour of body greyish-yellow, carapace and 4 dorsal spines black and contrasting ................................................. *melanacanthus* LOMAN
   - Background colour of body dark reddish-brown, the 4 dorsal spines not contrasting with the rest of body ........................................ *fuscus* RÖWEER

3. Coxae pale yellow, tarsus II with 14, tarsus IV with 9 segments, leg II 2½-3 times body length .............................................. *jeanneli* (RÖWEER)
   - Coxae dark reddish-brown, tarsus II with 11-12, tarsus IV with 8 segments; legs longer, 3½-4 times body length ................................ *ater* n. sp.
Caelobunus ater n. sp. - (Figs. 38-42).

Holotypes, 1 ♂ (109024), allotype, 1 ♀ (109025), and 28 paratypes (♂ ♂ , ♀ ♀ and immature specimens), Bunduki, Uluguru Mts., Tanganyika Terr., Mgeta moy. at 1300 m, 30-IV/2-V-1957.

♀ Colour. Dorsal surface blackish-brown, almost black, the following a little lighter (dark orange): some symmetrical reticulate markings on carapace, the lateral and transverse grooves of dorsal scute, a narrow median stripe from the middle of the posterior margin of scute to between the

spines on free tergite III, the apical half of the 4 dorsal spines. Ventral surface blackish-brown, the medial parts of the coxae lighter (reddish-brown), pedipalps and chelicerae light olive green, heavily banded and reticulated with black. Legs: trochanters with a narrow black apical ring; femora with apical and basal black rings, the anterior ones with some indistinct black bands in the middle as well; tibiae and metatarsi with wide alternating bands of red and black (metatarsus IV with 4 distinct bands of each); tarsi I, III and IV olive green, of II black.
**Dorsal surface.** Anterior margin of carapace with the inner of the paired lateral tubercles much longer and thicker, sometimes with 2 small tubercles laterally to it. Anterior edge with a row of small granules. Ocular tubercle above flat or slightly convex, uniformly covered with small granules similar to those of carapace and dorsal scute, an irregularly duplicated row at side of dorsal scute; area V and free tergites with a strip of similar granules, about 2 deep.

**Ventral surface.** Coxae I-III densely and uniformly covered with small granules, those of IV sparse, especially mesially, the area below genital operculum almost without; sternites with 1 posterior regular row of small granules, a second more anterior row very irregular, indistinct in the middle; genital operculum as in fig. 38, with about 25 setae; penis large and heavily chitinised, fig. 40.

**Pedipalp.** Femur as in fig. 42 from inner side, patella with 3-4 small teeth on inner ventral margin, tibia with 2 inner, 1 outer long spines in addition to short teeth, tarsus with 2 long spines on each side and short teeth.

**Chelicera** as in fig. 41 from outer side, segment II smooth but anterior surface with a row of 3-4 very small granules.

**Legs** with numerous small granules as far as tibia, all femora straight, not sinuate. Tarsal segments 6:11-12:7:8.

**Dimensions.** Length of body 7, pedipalps 4.7; legs 13.5:26.5:16.2:23 mm.

♀. There is no difference between the sexes in colour, granulation of body and chelicera, or spination of pedipalps. The ♀ appears to be somewhat larger and the shape of the genital operculum, fig. 39, is different, wider and more pointed. Ovipositor with 5 fairly long curved setae on each side at apex. Tarsal segments as in ♂.

**Dimensions.** Length of body 8, leg II 27.5 mm.

**Additional material.** 13 ♀ (109080-109089) and 3 ♀ (109065-109068) Bunduki, Tanganyika Terr., Mungula Gorge at 1500 m., in humus of transitional forest, 1/6-V-1957; 2 ♂, 1 ♀ (109427-109429) Ululu-Ndogo Valley, Uluguru Mts., Tanganyika Terr., at 1500 m., 8-V-1957; 9 ♂ (109113-109122) Bunduki, Tanganyika Terr., Uluguru Mts., at 1300 m.; in hollow tree of vestigial ombrophile forest, 7-V-1957.

In full-grown adults tarsus II had 11 segments in 12 specimens, 12 in 5, 11 or 12 in 5 others; tarsus IV only occasionally with 9 tarsal segments on one side.

The species is closely related to *C. jeanneli* (ROEWER) differing from it in the stouter pedipalp-femur, in all legs being relatively longer, in the colouring, and the smaller number of tarsal segments for legs II and IV.
Subfamily **Sidaminae** Roewer

*Key to the genera of Sidaminae (Central and East Africa)*

1. Tarsus I with 4 segments .................................................. *Sidama* Roewer
   - Tarsus I with more than 4 segments .......................................................... 2
2. Tarsus I with 5 segments .................................................. *Blanthyrea* Roewer
   - Tarsus I with more than 5 segments .......................................................... 3
3. Tarsus I with 6-7 segments; area I not divided by a median groove ... 4
   - Tarsus I with 7-10 segments; area I with or without a median groove ... 5
4. Pedipalp femur with ventral spines more than twice diameter of segment; ocular tubercle smooth above ........................................... *Congolla* Roewer
   - Pedipalp femur with ventral spines subequal to diameter of segment; ocular tubercle granular above, at least one pair of these enlarged ........
     ........................................................................................................... *Metasidama* Roewer
5. Legs normal, II about 8 times body length; free tergites with a row of strongly enlarged triangular granules, larger than any on dorsal scute ....
   ........................................................................................................... *Scabrosidama* n. genus
   - Legs very long and slender, II 14-17 times body length; free tergites with small weak granules much smaller than any on dorsal scute ........ 6
6. Tarsus I with 10 segments, distitarsus II with 3; area I divided by a suture (cave-living) .......................................................... *Neosidama* Roewer
   - Tarsus I with 7-9 (usually 8) segments, distitarsus II with 4; area I not divided by a suture (forest-living) ................................. *Lisposidama* n. genus

**Genus SCABROSIDAMA** n. genus

Anterior margin of carapace with a group of 3-4 tubercles on each side, the inner considerably larger than the others; ocular tubercle covered with scattered granules, not armed with teeth or spines but 1 enlarged conical granule on each side, fig. 49. Dorsal scute covered thickly with coarse granules of different size, a pair on each area enlarged and spine-like; area I not divided in the middle; free tergites with a regular posterior row of enlarged triangular granules.

Opening of stigmata hidden. Pedipalps and chelicera as in *Neosidama* Roewer. Tarsal segments 7-9: 12-17: 7-8: 8-10: distitarsus of leg I with 2, of II with 4 segments. The genus resembles *Neosidama* but differs in having strong spine-like granules on the free tergites, in the smaller number of tarsal segments, and in distitarsus of leg II having 4 instead of 3 segments. In a number of characters it seems to be intermediate to *Metasidama* Roewer and *Neosidama* Roewer.

Type, *Scabrosidama serraticheles* n. sp.
Scabrosidama serrachelis n. sp. - (Figs. 43-49).

Holotype 1 ♂ (109090), paratypes 2 ♂ 1 ♀. Bunduki, Uluguru Mts., Tanganyika Terr., in Mungula gorge at 1500 m., 1/6-V-1957.

♂. Colour of dorsal surface light brown becoming a little darker posteriorly, transverse and lateral grooves of dorsal scute yellow; carapace and ocular tubercle with blackish symmetrical markings, enlarged granules of free tergites blackish; ventral surface yellow or orange, without markings; palps and chelicerae yellow with some darker indistinct reticulate markings, legs brown with reticulate blackish markings.
**Dorsal surface.** Anterior margin of carapace with tubercles as in fig. 43, otherwise smooth but with a low rounded raised area in the middle just anterior to ocular tubercle; ocular tubercle as in fig. 49, irregularly and sparsely covered with granules, one very large round or conical granule on each side mesially to and a little behind level of the eye. Carapace smooth with a group of 4-5 small granules postero-laterally to ocular tubercle; areas each with a row of somewhat enlarged granules (usually the middle row), 2 of these, situated far apart, a little larger than the others, spine-like; areas I and II with this row recurved, straight in area III, procurred in IV; granules in I, III and IV 3 deep, in II 5 deep; area V with a strong row of triangular tooth-like granules on its posterior margin, anterior to this a regular row of much smaller round granules. Lateral margin of scute with
2 irregular rows of small granules. Free tergites as in fig. 44 seen from above, each with a regular row of enlarged triangular granules increasing progressively in size posteriorly, without a regular row of small granules anteriorly, these being sparse.

**Ventral surface.** Coxa I with a row of large anterior and small posterior round granules, remaining coxae with sparse, well separated granules, almost smooth basally but granulated apically; sternites with a row of small indistinct granules. Genital operculum as in fig. 45 with 12 setae. Penis as in fig. 46.

**Pedipalp.** Femur as in fig. 47, seen from inner side; patella with 2 long inner spiniform teeth, 1 outer shorter tooth; tibia with 3 shorter teeth alternating with 2 long spines on inner side, outer side with a long spine in the middle and 2 shorter teeth on each side; tarsus with spination similar to inner side of tibia.

**Chelicera** as in fig. 48 seen from outer side.

**Legs** long and slender, the femora quite straight. Tarsal segments different in each of the 7 specimens from the type locality, varying as follows: I 6-9, II 12-17, III 7-8, IV 8-10, I and III usually with 8, II usually with 15, IV usually with 9 segments.

**Dimensions:** Body length 4.8, leg I 15.5, II 36.5, IV 22.5 mm., pedipalp 4.2 mm.

I can find no difference which would indicate female characters in these specimens, One of them has the second pair of legs distinctly shorter, the granulation of both dorsal and ventral surfaces a little stronger and the pedipalp femur with 8 ventral teeth; this may possibly be a female.

**Additional material.** 1 ♀? (109130-109312) Bunduki, Uluguru Mts., Tanganyika Terr., in a hollow tree of vestigial ombrophile forest at 1300 m., 7-V-1957; 2 ♂♂, 1 ♀ (109174-109175) and 1 immature ♂ (109047) with the same data as the types.

**LISPOSIDAMA** n. genus

Anterior margin of scute normal, with 2:1:2 tubercles. Ocular tubercle irregularly covered with small granules, without spines or tubercles. Areas I-IV with a pair of enlarged spines, those of I, II and IV however very short and widely separated, about a third as long as those of III which are conspicuous; area I not divided by a median suture; free sternites unarmed, each with a single row of small widely separated granules; granules of ventral surface larger and more numerous than those of dorsal surface, sternites with a distinct regular row of small granules; opening of stigmata hidden. Pedipalp femur with 9-11 large pointed teeth ventrally, a row of granules on its outer surface. Segment I of chelicera roughened with small but distinct granules above, segment II with a row of toothlike granules on anterior surface. Legs very long and extremely slender, especially II which is about 14 times length of body. Distitarsus of leg I with 2, of leg II with 4 segments. Tarsal segments 7-9: 16-18; 8-10; 9-11.

**Type:** Lisposidama filipes n. sp.
Lisposidama filipes n. sp. - (Figs. 50-54).

**Types.** 1 ♂ holotype (109130), 1 ♀ allotype (109131), from a hollow tree in a vestigial ombrophile forest at 1300 m., Bunduki, Uluguru Mts., Tanganyika Terr., 7-V-1957.

♂. **Colour.** Dorsal surface blackish, some yellow reticulate markings on carapace; coxae brown, yellow in the middle, sternites blackish brown, legs brown to blackish but trochanters yellow with a black apical ring; patella II yellow, contrasting with the black femur and tibia, the joint between tibia and metatarsus of II and IV similarly bright yellow; mouthparts yellow to orange with blackish reticulation.

Dorsal surface smooth, anterior margin of carapace with only 2 lateral tubercles of moderate size, the inner a little larger than the outer one, Fig. 50; ocular tubercle with small sparse granules, 3-4 somewhat enlarged ones on the anterior surface, one on each side mesially to and a little behind each eye; carapace smooth and shiny, areas with enlarged spines as in generic description; posterior margin of scute and of free tergites I and II with a row of 7-9 widely separated indistinct low granules, otherwise smooth, III with an irregular anterior row as well; lateral margin of dorsal scute with an ill-defined row of 8-10 unusually large round granules.

Ventral surface. Coxae with fairly dense distinct granules except in the middle, I with a large bifid tubercle on its anterior distal margin; sternites with a regular row of distinct round granules; genital operculum as in fig. 54; penis as in fig. 51, closely resembling that of *Scabrosidama serraticclesis* n. sp.

**Pedipalps.** Femur as in fig. 53 seen from inner side, a distinct row of small round granules on the basal two-thirds of its outer surface, remaining segments armed as in *Scabrosidama*.

**Chelicera.** Segment I with small granules above, fig. 52. Segment II with an anterior row of about 6 saw-like teeth on its anterior surface, irregularly duplicated at base of segment; outer surface with a row of 5 or 6 smaller round granules.

**Legs.** Tarsal segments 7-9. 16-18:8-10:9:11, but usually 8:16-17:9:10.

**Dimensions:** Length of body 5.2; legs 27; 71; 29; 38; pedipalp 5.3 mm.

The other specimen, which appears to be a ♀, differs from the above description only in the considerably shorter legs and generally fewer tarsal segments (7-8:16-17:8-9:9). The species differs from *Scabrosidama serraticclesis* in the tubercles of the anterior margin of carapace, the smooth dorsal scute with the enlarged paired spines on areas I-IV and the much longer legs; it agrees with it in the structure of the penis and in the 4-segmented distitarsus of leg II.

**Additional material:** 1 ♀ more darkly coloured than in the type, with tarsal segments 7:16:8:9 (109065-109068) in the humus of transitional forest, Mungula Gorge, Bunduki, Uluguru Mts., Tanganyika Terr., at 1500 m., 1/6-V-1957.
Genus **METASIDAMA** **ROEWER**

**Metasidama gracilis** n. sp. - (Figs. 55-60).

*Types, 1 ♂ holotype (109014), 4 ♂ ♂ paratypes, Bunduki, moy. Mgeta, Uluguru Mts., Tanganyika Terr., at 1300 m., 30-IV/2-V-1957.*

Figs. 55-60. - *Metasidama gracilis* n. sp.; 55 and 56. trochanter-femur of pedipalp, inner and outer sides respectively; 57. penis; 58. chelicera from outer side, and 59 from above; 60. genital operculum of ♂.

*Colour* blackish-brown and yellow, black predominating; dorsal scute and free tergites blackish with some transverse symmetrical yellow markings, enlarged granules black, carapace predominantly yellow, a broad black band on each side, a fairly wide yellow hand between. Ventral surface blackish, coxae with strong blackish reticulation but mostly yellow at their
bases. Pedipalps and chelicerae mostly yellow with blackish reticulation, tarsus of pedipalp and segment II of chelicerae more blackish. Legs brown, the anterior ones becoming darker (blackish), the posterior ones lighter (yellow) distally, no yellow annulations.

**Dorsal surface.** Anterior margin of carapace with the tubercles normal, the inner of the two lateral ones thicker, a little longer than the outer and somewhat curved. Carapace smooth anteriorly, with scattered granules laterally and posteriorly to the ocular tubercle; ocular tubercle above with small scattered granules, 1 on each side mesially and posteriorly to the eye, elongated and somewhat pointed.

Areas uniformly but not densely covered with small granules, I-III with 2 widely separated enlarged pointed tooth-like granules, area IV without, area V with a pair of enlarged pointed triangular granules, resembling those of free tergites I-III but a little longer; area I not divided in the middle; lateral margin of scute with an irregular row of 20 small granules. Free tergites I-III with a posterior row of respectively 6, 7 and 9 enlarged pointed triangular granules, a larger usually alternating with a smaller granule, III in addition, with an irregular anterior row of smaller round granules.

**Ventral surface.** Coxa I with 2 or 3 regular rows of enlarged round granules, II and III with 1 anterior row of smaller granules, IV with sparse granules, almost smooth proximally; sternites with 1 row of small well-separated granules, less distinct than those of coxae. Genital operculum as in fig. 60, with 8 setae. Penis as in fig. 57, differing from the previous species in the much shorter spines and the expanded apex of the organ, 2 ventral spines opposite the lateral group of 3, in addition to those shown in fig. 57.

**Pedipalp.** Dorsal surface of all segments with some scattered but distinct round granules, outer surface of femur with a row of 6-7 in basal two-thirds of segment, fig. 56, inner side as in fig. 55; patella with 2 long inner and 1 shorter outer spiniform teeth; tibia on outer side with 1 long spine in middle, 2 shorter teeth on each side, inner margin with 1 short, 1 long, 2 short, 1 long spines, tarsus on each side with 3 short alternating with 2 long spines.

**Chelicerae** as in fig. 58 from outer side, segment I from above as in fig. 59, with more numerous and much larger granules than in either of the two previous genera described.

**Legs** long and slender, femora straight, all segments to tibia with minute but distinct uniform granulation. Seen from above coxa I and II with an enlarged tooth-like granule at apex of posterior margin, IV with 4 similar granules along its anterior margin and a dorsal group of 5-6 smaller ones in the middle. Tarsal segments 7-8: 15: 7: 8. Including the 4 paratypes tarsus I varies from 6-8 segments (but usually 7), II similarly 12-15, III 6-7 (usually 6), IV 7-8 (usually 7). Distitarsus of I with 2, of II with 4 segments (in only one specimen with 3 segments, then only on one side).

**Dimensions:** Length of body 4, pedipalp 2.5; legs 11.5, 31, 12, 17 mm.

In only one character does this species disagree with ROEWER's description of *Metasidama*, viz: the distitarsus of leg II with 4 instead of 3 seg-
ments. In spite of this I feel sure that the species is very close to *M. ephippia* A. from which it only differs in details of the dorsal granulation and the spination of the pedipalps (e.g. only 5 large ventral spines on the femur instead of 8 in *ephippiatus*).

**Additional material.** 1 ♂, 1 ♀ (109012-109013) with the same data as the types; 1 immature ♀ (109446) Uluguru Mts., Tanganyika Terr., Ululu-Ndogo Valley at 1300 m., Uluguru Mts., Tanganyika Terr., 8-V-1957; 1 ♂ (109061) and 1 immature ♂ (109047), immature ♀ (109069) Mungula Gorge, Bunduki, Uluguru Mts., Tanganyika Terr., at 1500 m., 1/6-V-1957.

**Key to the genera of Erecinae (Central and East Africa)**

1. Distitarsus of leg II with 2 segments ....................................................... 2
   - Distitarsus of leg II with 3 or 4 segments ............................................. 13
2. Tarsus I with 4 segments .............................................................................. 3
   - Tarsus I with more than 4 segments ......................................................... 7
3. Tarsus II with 5 segments ................................................................. *Ternitereca* ROEWER
   - Tarsus II with more than 5 segments ..................................................... 4
4. Scute and free tergites with tubercles or enlarged granules ................. 5
   - Scute and free tergites unarmed ................................................................. 6
5. Areas defined by transverse grooves, II and III with a pair of tubercles; tarsus IV with 6 segments ..................................................... *Calicereca* ROEWER
   - Areas not divided by grooves, scute with transverse rows of round granules; tarsus IV with 5 segments ........................................ *Kasaina* LAWRENCE
6. Tarsi III and IV with 5 and 6 segments ........................................... *Ereca* SOERENSEN
   - Tarsi III and IV with 6 and 7 segments ............................................. *Lubudia* ROEWER (Termitophilous)
7. Tarsus I with 5 segments .............................................................................. 8
   - Tarsus I with 6 segments ................................................................. *Erecabia* ROEWER
8. Free tergites I-III unarmed ................................................................ *Metereca* ROEWER
   - At least free tergite III armed ................................................................. 9
9. Areas I-V of scute unarmed ........................................................................ 10
   - Areas I, IV, and V of scute unarmed, II and III and free tergites II and III with a pair of spines ..................................................... *Erecomma* ROEWER
10. Free tergite I unarmed, II and III with 2 or 3 spines, or free tergites I-III armed ......................................................................................... 11
    - Free tergites I and II unarmed, free tergite III with a pair of spines ................................................................. *Erecella* ROEWER
11. Area I divided by a median groove; ocular tubercle large, drawn out into a long pointed process ........................................... *Neobaorix* n. genus
    - Area I entire, ocular tubercle low, transversely oval ........................................ 12
12. Ocular tubercle with a pair of large conical spines above; free tergite I with a row of spines ........................................ Bundukia n. genus
   Ocular tubercle without a pair of spines above; free tergite I unarmed ................................................................. Erecola ROEWER

13. Ocular tubercle bluntly conical, eyes absent .............. Tundabia ROEWER
   - Ocular tubercle transversely oval, low, without spines, or granulated, or with a pair of spines; eyes present .................. 14

14. Distitarsus of leg II with 4 segments ...................... Montereca n. genus
   - Distitarsus of leg II with 3 segments ........................................... 15

15. Area I of scute divided by a median groove .................. 16
   - Area I of scute entire ..................................................................... 19

16. Areas I-V and free tergites without spines .......... Aberdereca GOODNIGHT
   - At least areas I-III with spines ....................................................... 17

17. Areas I-IV with a pair of spines, area V and free tergites with a row of spines ......................................................... Acanthophrysella STRAND
   - Areas I-III with, IV without a pair of spines ...................................... 18

18. Area V and free tergites I-III each with a row of spines ............................................................ Bulobana ROEWER
   - Area V and free tergites I-III unarmed ............................................. 20

19. Tarsus I with 4 or 5 segments ......................................................... 21
   - Tarsus I with 6 segments .................................................................. 26

20. Free tergites I-III unarmed ............................................ Erebalda ROEWER
   - At least free tergites II and III with spines .................................... 21

   - Some or all of areas I-IV with a pair of spines .................................. 22

22. Areas I-IV with a pair of spines ........................................................... 22
   - Only areas II-III or I-III with spines ................................................. 23

23. Tarsus I with 5 segments, area V and free tergite I without a pair of spines ......................................................... Eregonda ROEWER
   - Tarsus I with 4 segments, area V and free tergite I with a row of spines ................................................................. Erecops ROEWER

24. Tarsus I with 4 segments; area V and free tergite I without spines ................ Ereconga ROEWER
   - Tarsus I with 5 segments; area V and free tergites with large spines, . 25

25. Areas I-III and V each with a pair of spines ............... Ereala ROEWER
   - These areas with spines, I-IV in addition flanked laterally by a large tubercle ................................................................. Faradjea ROEWER

26. Areas I-III and V with a pair of tubercles, free tergite III unarmed ......
   - Areas I-III unarmed, free tergites III with a row of spines .................... Kakontwea ROEWER
Genus Ereca Soerensen

Key to the species of Ereca

1. Tarsus I with 5 segments, penis of ♂ with some flattened leaf-shaped hairs as well as spines .................................................. differens Lawrence
- Tarsus I with 4 segments, penis of ♂ with spines only ........................ 2

2. Tibia of pedipalp with 1 spine on inner side in addition to some teeth 3
- Tibia of pedipalp with 2 inner spines in addition to some teeth ...... 7

3. Dorsal scute uniformly reddish brown ............................................. 4
- Dorsal scute with a symmetrical pattern of black markings on a yellow background ................................................................. 5

4. The two lateral tubercles of anterior margin of carapace equal; body 3.7 mm. ................................................................. soerenensi n. sp.
- Outer of the two lateral tubercles larger than the inner; body 2.5 mm. ................................................................. lata Soerensen

5. The two lateral tubercles subequal ........................................ maculata Roewer
- The two lateral tubercles unequal ..................................................... 6

6. The inner of the two lateral tubercles smaller than the outer ................
- The inner of the two tubercles much larger than outer .....................

7. The two lateral tubercles subequal ........................................ rufa Soerensen
- The outer of these tubercles the smaller ........................................ 8

8. Ocular tubercle on each side with 3 granules .......... modesta Soerensen
- Ocular tubercle uniformly covered with granules .... simulator Soerensen

Ereca differens Lawrence may equally well be placed in the genus Metereca but differs in the tarsal formula 5:7:5:5 as compared with 5:9-12:6:7; in a number of respects it resembles M. montana Roewer.

The genus is montane and appears to be common at fairly high altitudes, being represented in the material before me by a far larger number of individuals than is the case in any other genus. There seems to be a certain amount of intergrading and I think that some of the species described would be better regarded as subspecies of some others, as has been recognised by Goodnight and Goodnight (1959) who regard E. maculata Roewer as a subspecies of undulata.
Ereca maculata ROEWER - (Figs. 61-65, 73).

The following description is based on 15 ♂♀ (108859-108870), Tangan
yika Terr., Mt. Meru, Olkokola, versant N.O. at 2900 m., Hagenia savannah,
27/28-VI-1957. These specimens have been compared with a rather immature
♀ syntype of maculata ROEWER.

Figs. 61-65. Ereca maculata ROEWER, 61. colour pattern of dorsal surface; 62. trochanter-femur of pedipalp, inner side; 63. genital operculum of ♂; 64. apex of penis; 65. opening of penis enlarged.

♂. Colour. Dorsal surface with pattern markings as in fig. 61, the pre
dominant colour black, the lighter parts reddish yellow; ventral surface with
with a wide blackish triangular marking on each side below coxa IV, sepa
rated by a yellow V-shaped marking which encloses a black inverted trian
gular marking; sternites predominantly blackish-brown, each with a dis	inct black transverse stripe near posterior margin; legs entirely blackish
with a greenish tinge, mouthparts yellow with blackish reticulation.
Dorsal surface. Anterior margin of carapace with the lateral tubercles subequal, the inner wider than the outer, much longer than the median which is broadly triangular; anterior margin with a row of slightly elongated granules; ocular tubercle with a few irregular granules laterally but almost smooth in the middle. Carapace quite smooth and shiny, rest of scute with distinct well-separated round granules, rather fewer in the middle of the areas; areas separated by very distinct grooves, I-V with granules 5, 4, 3, 2 and 2 deep respectively but not arranged in rows; free tergites with 2 rows of granules only 4 or 5 in the middle of posterior margin of II and III enlarged, round; lateral margin of scute with a strip of granules 3 deep.

Ventral surface. Coxae regularly covered with numerous small granules each tipped with a narrow lanceolate seta, those of I and II in transverse rows; sternites with 2 fairly regular rows of small granules, those of posterior segments larger; genital operculum as in fig. 63, with 27 short setae. Penis as in figs. 64, 65, with a group of 8 dentate spines on each side, 3 on the edge, the rest ventral.

Pedipalp as in fig. 62 seen from inner side, patella with 3 short teeth on each side, the middle nearer to the basal than the apical; outer side of tibia with 3 teeth - 1 spine - 1 tooth, inner side with 2 teeth - 1 spine - 2 teeth.

Chelicera smooth.

Legs. Leg IV as in fig. 73, tibia with upper and lower surfaces straight, almost parallel, 3½ times as long as deep. All legs with minute shiny granules as far as metatarsus; tarsal segments 4: 7: 5: 6; femora, except II, slightly sigmoid.

Dimensions: Pedipalps 2.8, length of body 3.5 mm.

Additional material. 10 $\delta$ $\varphi$ (108987-108996) and 50 $\delta$ $\varphi$ (108905-108954) Tanganyika Terr., Mt. Meru, Olkokola, versant N.O. 2600 m., 3-VII-1957; 10 $\delta$ $\varphi$ (108961-108970) and 10 $\delta$ $\varphi$ (108794-108803) and 4 $\varphi$ $\varphi$ (118551) from the same locality 2750 m, 25/30-VI-1957; 2 $\varphi$ $\varphi$ (108899-108900) and 15 $\delta$ $\varphi$ (108882-108896) from the same locality at 2500 m, (Gorge of the Tshorongiro), 4-VII-1957; 2 $\varphi$ $\varphi$ (108837-108838) from the same locality in alpine prairie at 3600 m., 2-VII-1957; 10 $\delta$ $\varphi$ (109323-109332) Tanganyika Terr., Mt. Oldeani, versant Est, in montane forest at 2300 m., 13-VI-1937; 1 $\delta$, 2 $\varphi$ $\varphi$ (118548) Mt. Meru, Olkokola, versant N.O., at 2800 m., in Hagenia savannah, 27-VI-1957; 10 $\delta$ $\varphi$ (109608-109617) Kilimanjaro, N. de Marangu, versant S.E., 2200-2400 m., 22-VII-1957; 1 $\delta$ (109590) the same locality at 2300 m., in montane forest 15-VII-1957; 1 $\varphi$ (109655) Kilimanjaro, Marangu, at 1550 m., in transitional forest, 27-II-1956; 2 $\delta$ $\delta$ (108755-108756) Mt. Meru, Olkokola, versant N.O., at 2750 m., 25/26-VI-1957; 2 $\delta$ $\delta$ $\varphi$ (108845-108847) from the same locality at 2600 m., 3-VII-1957; 1 $\delta$, 3 $\varphi$ $\varphi$ (109626-109635) Kilimanjaro, N. de Marangu, in humus of montane forest, 24/25-VII-1957. 5 $\delta$ $\delta$, 6 $\varphi$ $\varphi$ (108060-108825) Mt. Meru, Olkokola, versant N.O., Gorge of the Latia at 2700 m., 28-VI-1957; 1 $\delta$ from (118546) Kilimanjaro Marangu, towards S.E., at 1600-1750 m., 13/20-VIII-1957.
Ereca affinis Soerensen - (Figs. 66-70).

10 ♂ ♀ (118545) Kilimanjaro, N. de Marangu, in humus of montane forest, 24/25-VII-1957; 10 ♂ ♀ (109580-109589) Kilimanjaro, N. de Marangu, versant E.E., 2300 m., in decaying logs of montane forest, 15-VII-1957; 1 ♂, 1 ♀ (109648-109649) Kilimanjaro, Marangu, in montane forest humus, 2400 m., 20-II-1956. 1 ♀ (118547) Kilimanjaro, N. de Marangu, versant S.E., 2200-

Figs. 66-69. Ereca affinis Soerensen, 66 and 67. dorsal and ventral view of penis; 68 and 69. genital operculum of ♀ and ♂ respectively.

2400 m., 22-VII-1957; 1 ♂, 3 ♀ (118550) Mt. Meru, Olkokola, versant N.O., at 2750 m., 30-VI-1957; 2 ♂ ♂ from (118549) Mt. Meru, Olkokola, versant N.O., 2600 m., 3-VII-1957; 1 ♂, 5 ♀ (109487-109492) Kilimanjaro, Bismarck's Hügel, 3100 m., in the zone of cultivated groves, 15-II-1956.

Penis of ♂ (from 10926-109635) as in figs. 66, 67, dorsal and ventral views; genital operculum of ♀ and ♂ as in figs. 68 and 69 respectively; leg IV of ♂ as in fig. 70.
Ereca soerenseni n. sp. - (Figs. 71, 74-79).

Holotype, ♂ (109343) and allotype ♀ (109344) Tanganyika Terr., Ngorongoro, in montane forest, 2200 m., II-IV-1957. Same data, paratype ♀.

♂. Colour pattern absent or very faint, body light reddish brown, carapace a little lighter, ventral surface orange or yellow brown; pedipalps and chelicera yellow; legs in general coloured as body but lighter basally, almost yellow, tarsi II-IV blackish.

Dorsal surface. Ocular tubercle as in fig. 78, with distinct but regular round granules more numerous on posterior than anterior surface; anterior margin of carapace with 2 irregular rows of small granules; lateral tubercles very large, subequal, the inner distinctly wider than the outer, both twice as long as the median. Carapace smooth, area I fairly thickly covered with small granules, II with granules 4 deep, III and IV 3 deep, some of these in the middle of areas larger than the others; sides of dorsal scute with a strip of close uniform granulation, similar to those of areas, 3 or 4 deep; transverse grooves of the areas distinct; area V with 2 rows of granules; free tergites I and II with granules 2 deep, those of posterior row larger, situated on posterior edge of segment; tergite III as in fig. 79 seen from above, the row on its posterior margin largest of all the granules, club-shaped or conical, in front 2 very irregular rows of smaller granules.

Ventral surface. Coxae closely covered with small granules, all sternites with 2 regular rows of small granules; genital operculum as in fig. 76, with 22 setose spines; penis as in figs. 74, 75.

Chelicera smooth.

Pedipalp. Femur (fig. 77), with 8 large ventral teeth; counting from the base, the first, fourth, sixth and eighth larger than the second, third, fifth and seventh; dorsally a row of about 8 very weak granules; patella with 3 short inner teeth, tibia with 1 inner spine and 2 or 3 teeth.
Legs. Leg IV as in fig. 71, patella and tibia not greatly thickened, tibia about twice as thick as metatarsus, a little less wide than apex of femur, its inferior margin straight, parallel to superior margin, femur with a row of small ventral granules. All femora except II sigmoid, tarsal segments 4: 7-8: 5: 6.

Dimensions: Length of body 3.7, pedipalps about 2.5 mm.

♀. Similar to ♂ in all respects but the pedipalp smaller, shorter, with 6 ventral teeth; size smaller; leg IV not incrassate.

Dimensions: Length of body 2.9 mm.

Additional material: 9 ♂ ♀ (109281-109200) Tanganyika Terr., Ngorongoro, region of plantations, 2300 m., 8-VI-1957; 2 ♂ ♂ ♀ (109275-109280) and 50 ♂ ♀ (109209-109258); Mt. Oldeani, versant Est in bamboo forest at
2350-2500 m., 6/9-VI-1957; \( \delta \varphi \) (109348-109350) Ngorongoro, head of source, in montane forest at 2200 m., 11-VI-1957; 14 \( \delta \varphi \) (109351-109360) Mt. Oldeani, versant N., in montane forest with bamboos at 2350 m., 9-VI-1957; 1 \( \varphi \) (109643) Kilimanjaro, Marangu, 2400 m., 20-II-1956; 1 \( \delta \), 2 \( \varphi \varphi \) (109650-109652) Kilimanjaro versant Est, in humus of montane forest at 2700 m., 25-II-1956; 1 \( \varphi \) (109644) of darker colour, Kilimanjaro, Marangu at 2400 m., 20-II-1956.

The species is nearest to *E. simulator* Soerensen which it resembles in colouring and in the general shape of leg IV. It differs from this species in having larger and more numerous granules on the dorsal surface, those of free tergite III especially being larger and longer. Tibia of leg IV is shorter and comparatively deeper, quite smooth dorsally and ventrally while in *simulator* there is a regular row of large granules on the dorsal edge of patella and tibia, also on the proximal two-thirds of the femur ventrally. Pedipalp-femur has 8 ventral teeth, *simulator* only 7, while pedipalp-tibia has only 1 long inner spine (*simulator* 2).

**Ereca undulata** Soerensen - (Figs. 72, 80-82).

Description based on 2 \( \delta \varphi \), 1 \( \varphi \), from (108787-108792) Mt. Meru, Olkoko-la, towards the N.W., at 2750 m., 25-VI-1957.

\( \delta \). Colouring intermediate between *undulatus* and *maculatus*; background yellow with black symmetrical markings, free tergites almost entirely black, less so at the sides and divided in the middle by a yellow stripe; ventral surface as in *maculatus*, about a half of each sternite black, a small black dot in middle of each; legs blackish green, pedipalps and chelicerae yellow, reticulated black.

![Figs. 80-82. Ereca undulata Soerensen, 80, penis; 81, genital operculum of \( \delta \); 82, the same of \( \varphi \).](image-url)
Dorsal surface. Inner tubercle of the lateral pair of the two lateral granules much larger than the outer which is distinctly longer than the median; anterior margin in front of carapace with 2 rows of round granules on each side curved forwards and not meeting in the middle line, the posterior row larger, ocular tubercle with a few superior granules between the eyes; carapace almost smooth, 1 pair of round, widely separated granules behind ocular tubercle; areas I-III with granules 4-5 deep, IV 3 and V 2 deep; scute in the middle with large round shiny contiguous granules, becoming fewer laterally, none at lateral border of scute; lateral margin of scute with a strip of 3 irregular rows of small granules, no enlarged granules in middle of the areas. Free tergites I and II with 2, III with 3 rows of granules the posterior of these a little longer than wide, slightly swollen at their apices.

Ventral surface. All coxae regularly and fairly thickly covered with small granules, sternites with 2 rows of similar granules. Genital operculum as in fig. 81, penis as in fig. 80.

Chelicera robust but smooth, the dorsal enlargement of segment I almost round.

Pedipalp. Trochanter with 1, femur with 5 ventral teeth, the fourth a little shorter than the rest, and a row of 6 fairly large granules dorsally; patella with 2 inner, 3 outer teeth; tibia with 4 outer teeth, the third spiniform, 3 inner teeth, the middle spiniform.

Legs. Tarsus IV as in fig. 72 from the side, tibia very deep, twice as long as deep and 3-4 times as deep as base of metatarsus, upper margin straight, lower margin curved; seen from above tibia longish-oval, much wider than metatarsus, almost 2 as wide as femur, a little wider than patella; femur sigmoid, twice as wide at apex as at base (seen from side) with a row of about 15 small ventral granules; tibia and patella slightly granular above, smooth below. Tarsal segments 4:7:5:6.

Dimensions: Length of body 3.4, pedipalps about 2.3 mm.

♀. Colour as in ♂ but the yellow background proportionally a little lighter. Inferior surface with a distinct black square marking just below the genital operculum, joined basally to a transverse black stripe on each side passing behind coxa IV; pedipalp and chelicera smaller; genital operculum wider, as in fig. 82.

Dimensions: Length of body 3.4 mm.

Genus ERECELLA Roewer

Key to the species of Erecella (Central and East Africa)

1. Inner of the two lateral tubercles of anterior margin of carapace much larger than outer (2-3 times) ................................................................. 2
   - The two lateral tubercles of anterior margin of carapace subequal and small .......................................................................................... 4

2. Ocular tubercle granular above ................................................................ flava (Lake Tanganyika)
   - Ocular tubercle smooth or nearly so .................................................. 3

3. Colour uniform reddish yellow; pedipalp femur with 5 ventral teeth ...
   ........................................................................................................... lutea (Uganda)
   - Colour yellow with symmetrical black pattern; pedipalp femur with 7 ventral teeth .............................................................. basilewskyi (Uganda)

4. Dorsum yellow with black symmetrical pattern; ocular tubercle smooth above; the 5 tubercles of anterior margin of carapace subequal ..........
   ........................................................................................................... signata (Ruanda)
   - Dorsum uniform dark brown, only the transverse grooves of the scutum yellow; ocular tubercle granular; lateral tubercles of carapace twice as long as the median ................................ brunnea (Ruanda)

All the species of this genus, except basilewskyi n. sp., have been described by Dr. C. Fr. Roewer.

Erecella basilewskyi n. sp. - (Figs. 83-86).

Holotype, 1 ♂ (109463), 1 ♀, allotype (109464), paratypes 2 ♀ ♂, Uganda, Bugiri, in vestiges of ombrophile forest, 1400 m., 5/8-VIII-1957.

♂, Colour of dorsal surface as in fig. 83, black markings on a yellow background; coxae yellow brown, IV with an irregular black stripe along anterior margin, a similar one in the middle parallel to it, a small black triangular marking below genital operculum; a large area just below coxa IV black, sternites with diffuse black markings and stripes; chelicera and pedipalps yellow with irregular black reticulation; legs olive green, reticulated black.

Dorsal surface. Abdominal portion of body much wider than head portion and strongly constricted laterally, more so than in lutea Roewer and flava Roewer but less so than in signata Roewer. Tubercles of anterior margin of carapace as in lutea, fig. 84; ocular tubercle smooth or with a few minute granules; areas with only vestigial traces of a transverse row of minute granules each, those of free tergites larger but not as large as in lutea; lateral margin of scute almost smooth, an irregular row of a few granules.
Ventral surface. Coxae with minute dispersed granules, sternites with a transverse row of larger ones.

Chelicerae with both segments quite smooth and shiny.

Pedipalps. Femur with 7 ventral saw-like teeth and a long curved dagger-like spine at inner apex, figs. 85, 86; patella with 3 small inner teeth; 2 outer; tibia with 5 outer, 4 inner similar teeth.

Figs. 83-88. Erectella basilowskyi n. sp., 83. colour pattern of dorsal surface; 84. anterior margin of carapace; 85. trochanter-femur of pedipalp; 86. apex of pedipalp femur from above (enlarged). Erectula teletu sp., 87. anterior margin of carapace; 88. genital operculum of ♂.

Legs. Leg IV somewhat incrassate and long, femur, patella and tibia (but not metatarsus) incrassate, femur 1 ½ times as deep at apex as at base; no enlarged teeth or spines. Tarsal segments 5:10-11:6:7; distitarsus of both I and II with 2 segments.

Dimensions: Length of body 3.5, pedipal 2.4 mm.
9. Similar in the colour pattern and in almost all other respects; size of body and pedipalps smaller; free tergite III sometimes with a row of 4 spines, the lateral on each side smaller.

*Dimensions*: Length of body 3.1 mm.

**Key to the species of Erecula (Central and East Africa)**

1. Body-length 3 mm, leg IV not incrassate ................. *marmorata* ROEWER  
   - Body-length 3.7-6 mm., leg IV incrassate ........................................... 2

2. Lateral tubercles of anterior margin of carapace subequal; pedipalp patella with 4 teeth on each side .................................................. *leleupi* n. sp.  
   - Lateral tubercles of anterior margin of carapace unequal; pedipalp patella with 2 or 3 teeth on each side ................................................. 3

3. Dorsal surface with distinct pattern marking; areas of scute with 2 very regular rows of large granules; pedipalp-femur with 8-9 ventral teeth ....  
   ................................................................. *simpex* ROEWER  
   - Dorsal surface without a pattern; areas with irregular granulation; pedipalp-femur with 5-7 ventral teeth ................................................. 4

4. Pedipalp-femur with 5 ventral teeth; tibia of leg IV almost oval, much constricted at base and apex ............................................ *pachypes* ROEWER  
   - Pedipalp-femur with 7 ventral teeth; tibia of leg IV parallel-sided, of same thickness throughout ............................................. *7-dentata* LAWRENCE

**Erecula leleupi** n. sp. - (Figs. 87-90).


♂. *Colour* light yellow-brown with blackish symmetrical pattern, more or less as in *Erecella basilewskyi* but not as sharply defined; ventral surface below coxa IV and in the middle above it blackish, sternites with diffuse blackish markings, otherwise yellow brown; legs light brown, femora with a blackish ring, chelicera and pedipalps yellow brown.

*Dorsal surface*. Anterior margin of carapace as in fig. 87; ocular tubercle smooth, the area behind it with a pair of widely separated round granules; area I with a regular row of round granules along posterior margin, duplicated in the middle, II-IV with granules 2-3 rows deep, V with 1 row duplicated in parts; free tergites I and II with 1 row each; lateral margin with 2 rather irregular rows of granules.

*Ventral surface*. Coxae II-IV almost smooth, matt, their anterior margins with a regular row of round granules, I with 3 rows of round granules; sternites with 2 irregular rows of small round granules; genital operculum as in Fig. 88; penis as in Fig. 90.
Chelicerae quite smooth on both segments.

Pedipalps. Femur as in fig. 89, seen from inner side; patella with 4 large inner teeth, 4 much smaller outer ones, fig. 89; inner side of tibia with 3 moderate teeth, outer side with 2 short, 1 long and 2 short teeth.

Legs. Leg IV incrassate but without rows of enlarged granules, spines or teeth, coxa above and at the sides with uniform small granules, femur weakly sinuate, tibia parallel-sided, about 4 times as long as deep; tarsal segments of leg I robust; tarsal segments 5:8:5:6.

Dimensions: Length of body 3.7; pedipalp 2.8 mm.
MONTERECA  n. genus

Anterior margin of carapace with small lateral and median tubercles; ocular tubercle low, transversely oval; areas of dorsal scute granulated but without enlarged spines; I not divided by a median groove; free tergites I-III with a row of enlarged spines each; chelicera large; distal dorsal swelling of segment I granular. Pedipalp small, femur narrow with small weak ventral teeth, no spine at its inner apex. Legs long slender, especially II, IV not incrassate and without enlarged spines or teeth; distitarsus of I with 2, of II with 4 segments; tarsal segments 5:11:6:7.

Type: Montereca paucidens n. sp.

The Sidaminae are only separated from the Erecriinae by one rather indefinite character, the length of the ventral teeth of the pedipalp femur. Montereca resembles all the three species of Sidaminae which have been described in this paper in having four distitarsal segments on leg II, and in the long and slender legs; it differs from them in the much smaller number of tarsal segments for all the legs (a constant number of 5 on leg I), and the absence of enlarged spines on the scute.

Montereca paucidens n. sp. - (Figs. 91-93).

Holotype 1 ♂ (109447), paratypes 1 ♂, 1 juv., Tangaayika Terr., Uluguru Mts., Ulu-Ndogo Valley at 1500 m., in transitional forest, collected 8-V-1957.

♂. Colour. Dorsal surface with a black symmetrical pattern resembling that of Erecella basilewskyi but less clearly defined, the enlarged spines of the free tergites black; coxae with diffused black reticulation, the area posterior the coxa IV black, sternites with posterior margins broadly blackened; legs blackish green, the anterior a little darker than the posterior; chelicera and pedipalps variegated blackish green.

Dorsal surface. Anterior margin of carapace with small to moderate sized tubercles, fig. 93, ocular tubercle low, flat above, with granulation as in fig. 93; behind ocular tubercle an indistinct row of about 4 slightly enlarged granules; areas I-V uniformly but not thickly covered with small pointed granules, I not divided by a groove; free tergites I with a row of 6 rather small, unequal, pointed spines, II with 8 distinctly longer ones, III with 7 a little longer than those of II; coxae I-III with small scattered irregular granules of varying size, their anterior margins with a regular row of larger ones, IV with posterior half almost smooth, anterior half with some irregular enlarged granules, near its distal end dorsally 1 or 2 elongate pointed granules; sternites with a regular row of small granules bordering their posterior margins.

Chelicera as in fig. 91 seen from outer side.

Pedipalps. Femur with 4 short, well separated granules ventrally, as in fig. 92; trochanter with a triangular tooth tipped with a long spine in contrast to the short apical setae of the femoral teeth, no spine or tooth at
inner apex of femur; patella with 2 inner, 1 outer short, sharp, triangular teeth; tibia with an inner row of 5 short triangular and long spinose teeth as follows: short, long, short, long, short; outer row with 4 teeth: short, short, long, short.

Legs with irregular small granules, those of femur and tibia of posterior legs a little larger, posterior legs not incrassate or modified, II very long and slender, especially metatarsus; tarsal segments 5:11-12:6:7.

Dimensions: Length of body 4, pedipalps 2.2, leg II 13.4 mm.

**BUNDUKIA** n. genus

Lateral tubercles of anterior margin of carapace large, the median one obsolete; ocular tubercle above with a pair of conical pointed spines between the eyes; areas I-IV with a pair of very small pointed granules, scute otherwise smooth; area V and free tergites I-III with a row of much longer, sharp spines; pedipalp femur with a spine at extreme inner apex; chelicerae without granules. Leg IV incrassate; distitarsus of legs I and II with 2 segments each; tarsal segments 5:9-12:6:7.

Type: *Bundukia nigra* n. sp.

The genus seems nearest to *Erecula* and *Erecella*, differing from them in the armature of the dorsal surface and the presence of a pair robust spines on the ocular tubercle.

**Bundukia nigra** n. sp. - (Figs. 94-100).

*Holotype* 1 ♂ (109044), allotypes (118555), ♂, 1 paratype juv. (118556), Bunduki, Uluguru Mts., moy. Mgeta, 1300 m., collected 30-IV/2-V-1957.

*Colour* predominantly black, forming a symmetrical pattern on a yellow background, free tergites entirely black, only the spines lighter; coxae diffuse blackish, a large black marking below IV bisected by a narrow prolongation of a laneolate black marking below genital operculum, sternites black; legs entirely blackish green, the apices of most segments with a black ring; pedipalp reticulated blackish, chelicerae yellow green with blackish markings.

*Dorsal surface.* Anterior margin of carapace as in fig. 94, inner tubercle longer and thicker than outer; ocular tubercle smooth, with two large, pointed, conical spines, almost contiguous at their bases; dorsal scute smooth, areas I-IV with a pair of small vestigial granules, those of II-IV pointed; area V with a row of 4, free tergites with 4-5 sharp pointed spines, those of area V smaller than those of free tergites, larger than those of areas I-IV, free tergites with a few small irregular granules as well as spines; lateral margin of scute without a row of small granules but a group of 3 enlarged ones on its edge opposite middle of coxa IV.

*Ventral surface.* Coxae II-IV smooth, matt, I with 2 rows of small round granules, a group of 4 elongate ones on anterior proximal edge, II with an anterior row of round granules and 3 enlarged ones on its posterior margin at distal apex; coxae I and II with a pointed dorsal granule, IV with small
granules at the sides becoming larger as they pass into the rough granulation of the latero-dorsal surface which is visible from above; sternites with a single very regular border of small bead-like granules along their posterior margins, otherwise quite smooth. Genital operculum as in fig. 98; penis as in fig. 99, its apex with a group of about 9 strong spines on the lateral swelling, 3 ventral, 6 dorsal or implanted on its edge; in all 12 or 13 spines on each side.

Pedipalp. Trochanter-femur-patella as in fig. 95 seen from inner side, inner spine of femur situated near extreme apex and ventral surface; patella with 3 long inner spines, 3 much shorter, tooth-like outer ones; tibia with a row of 5 short and 1 long spines on its outer side, fig. 96, inner side with 2 short, 1 long, 1 short, 1 long; tarsus on outer edge with spines as in fig. 97.

Chelicera smooth and unspined except for 2 minute tooth-like granules at base of the dorsal distal swelling of segment I, fig. 100.
Legs. Leg IV moderately incrassate, femur weakly sinuate (less so than III); patella the deepest of the segments, a row of small granules on its dorsal surface and on the medial and ventral surfaces of femur; tarsal segments of I and III robust, of II slender. Tarsal segments 5:9:12:6:7.

Dimensions: Length of body 4.5, pedipalp 2.2 mm.

Additional material: 1 ♂ from (109094-109103) Bunduki, Uluguru Mts., Mungula Gorge at 1500 m., in humus from transitional forest, 1/6-V-1957.

Genus ERECABIA Roewer

Erecabia pluridens n. sp. - (Figs. 101-106).

Types, 1 ♂ holotype (109153), 1 ♀ allotype (109154), 24 paratypes ♂ ♀ in mountain forest, summit of Kikunda, 1850-1950 m., Uluguru Mts., Tanganyika Terr., 8-V-1957.

Figs. 101-106. Erecabia pluridens n. sp., 101. anterior margin of carapace; 102. genital operculum of ♀; 103. trochanter-femur-patella of ♂ pedipalp; 104. free tergites II and III of ♂; 105 and 106. dorsal and ventral surfaces of penis.
Colour in both sexes resembling that described for *Erecula marmorata* Roewer, blackish and yellow to orange, the darker colours predominating a little.

♂. Dorsal surface. Anterior margin of carapace with large diverging tubercles as in fig. 101, the two laterals subequal or the outer a little larger; carapace and ocular tubercle smooth matt, the latter with a few minute granules above; dorsal scute smooth matt, areas II-IV with very faint indications of a row of minute granules, V with a row of slightly larger granules. Lateral margin of scute with a single row of very minute granules; free tergite II with 2 enlarged spines, shorter than those on III, III with a row of 5, 3 shorter alternating with 2 long spines, Fig. 104, the 3 shorter a little behind the others, some small granules between the enlarged spines of II and III.

Ventral surface. Coxae thickly and uniformly covered with small granules, a middle row of I and II enlarged but not conspicuously so; sternites with a single row of minute granules; penis as in figs. 105, 106, most of the spines being situated on the under surface, fig. 106.

Pedipalp. Femur as in fig. 103 seen from inner side, the outer surface with some indistinct granules; patella with 2 outer, 3 inner teeth, the inner considerably longer; tibia on both sides with 2 short basal, 1 middle long, 1 apical short spines; tarsus on outer side with 2 short, 1 long, 1 short, 1 long, 1 short, on inner side with 1 short, 1 long, 1 short, 1 long spines.

Chelicera smooth.

Legs with very minute granules to tibia, IV incrassate; femora not sinuate; tarsal segments 6:11:6:7.

Dimensions: Length of body 4, pedipalps 3.7 mm.

♀. As in the ♂, the transverse rows of small granules on the dorsal scute and free tergites a little larger and more distinct than in the ♂; the granules of sternites and coxae a little larger. Genital operculum as in fig. 102, pedipalp femur with 6 ventral teeth; chelicera smooth; legs matt, IV not incrassate though longer and thicker than the others and sinuate. Tarsal segments 6:10:6:7.

Dimensions: Length of body 4, pedipalp 3.5 mm.

Additional material: 4♀♂ (118543) in transitional forest, Ululu-Ndogo valley, Uluguru Mts., Tanganyika Terr., at 1500 m., 8-V-1957.

The species might be placed in either *Erecula* or *Ereocabia*; it differs from *Erecula* in having 6 tarsal segments for leg I, from *Ereocabia hartmanni* in having free tergite II armed with 2 spines, III with a row of 5.

Key to the species of Ereocabia

1. Free tergite II with 0, III with 2 spines .................. *hartmanni* Roewer
   - Free tergite II with 2, III with 5 spines .................. *pluridens* Lawrence
**ROEWERECA** n. genus

Ocular tubercle low, transversely oval, quite smooth above; area I not divided by a median groove; areas I-IV smooth without spines, V with a pair of short spines in the middle; free tergites I-III with a pair of sharp spines (III with a row of 5); pedipalp femur with 2 sharp tooth-like spines at inner apex; patella with 2 inner teeth. Tarsal segments 5-6: 8-9: 6: 7; distitarsus of I with 2, of II with 3 segments; leg IV longer than the others, with femur, patella and tibia incrassate.

The genus appears to be closely related to Erecula from which it differs mainly in the 3-segmented distitarsus of leg II and in having a pair of spines on free tergite I.

Type: *Roewereca tenebrosa* n. sp.

*Roewereca tenebrosa* n. sp. (Figs. 107-112).

Holotypes 1 ♂ (109070), 1 ♀ (109077) Tanganyika Terr., Bunduki, Mungula Gorge, Uluguru Mts., 1500 m., collected 1/6-V-1957.

♂. Colour in general black, or with fine reticulated black markings; a stripe bisecting the carapace, a transverse stripe along the posterior of
areas I-IV (the two posterior much shorter and narrower than the anterior) a wide stripe along the lateral margin of scute, all yellow; ventral surface a little lighter in the middle, brown.

*Dorsal surface.* Anterior margin of carapace as in Fig. 107, ocular tubercle small, low, quite smooth; dorsal scute quite smooth except for a pair of small round barely perceptible granules on area IV; area V with a pair of short but distinct spines in the middle; free tergites I and II with a pair of slender spines in middle, III with 4 or 5, a little shorter than those of I and II, fig. 108.

*Ventral surface.* Sternites and coxae with minute scattered granules, coxa I with 2 rows of minute granules anteriorly.

*Chelicera* as in Fig. 110 seen from inner side. Segment I with a very large blunt tooth ventrally near its inner apex, II with a row of 4-5 large teeth on the inner half of anterior surface, 1 or 2 inner spines near its base.

*Pedipalp.* Femur with ventral teeth as in Fig. 109 seen from inner side, inner apex with 2 spine-like teeth; patella with 2 large inner, 1 outer spines; tibia with 5 inner, 4 outer spines.

*Legs.* Leg IV with femur incrassate in apical half but without enlarged granules or spines, Fig. 111; patella and tibia much thicker than metatarsus, these segments with a row of small but regular conical granules along dorsal edge, each with a stout seta, Fig. 112. Tarsal segments 5: 8-9: 6: 7, distitarsus of I with 2, of II with 3 segments.

*Dimensions:* Length of body 2.8, pedipalp 1.8, leg II 7.5, leg IV 7.8 mm.

♀. Colour as in ♀ from which it differs only in minor characters: area V without a pair of spines, those of free tergite I small; palpi and chelicerae smaller, segment I of chelicera with tooth near ventral inner apex smaller, anterior surface of segment II almost smooth. Leg IV much less incrassate than in ♀ but longer and thicker than the others.

*Dimensions:* Length of body 2.7 mm.

*Additional material:* 25 ♀ ♂ (109094-109103) and 1 ♀ (109062) with the same data as the type; 1 ♀, 5 ♀ ♂ (109435-109444) and 2 ♀ ♂, 1 ♀ (109447-109451), Uluguru Mts., Ululu-Nodgo Valley, 1500 m., in transitional forest, 8-V-1957.

**NEOBAEORIX** n. genus

Ocular tubercle large, drawn out into a long pointed process directed more upwards than forwards; grooves between the areas deep and clear, area I divided by a median groove; areas I-V fairly thickly and uniformly covered with small granules, without enlarged teeth or spines; free tergite I without, II and III with a pair of enlarged tooth-like spines in the middle, those of II much shorter than III; stigmata hidden beneath coxa IV. Pedipalp not granulated dorsally, femur with 6 strong triangular ventral teeth in basal half, inner apex with a long sharp toothlike spine; chelicera with segment I above and II anteriorly without granules. Femora
of legs III and IV sinuate, distitarsi of tarsi I and II with 2 segments each. Tarsal segments 5:8:6:7.

Type: Neobaerix cornuta n. sp.

Neobaerix cornuta n. sp. - (Figs. 113-117).

Holotype, 1 ♀ (109435), in transitional forest, Ululu-Ndogo Valley. Uluguru Mts., Tanganyika Terr., at 1500 m., 8-V-1957.

Figs. 113-117. Neobaerix cornuta n. genus, n. sp., ♀, 113. dorsal pattern of carapace; 114. genital operculum; 115. chelicera from outer side; 116. trochanter and femur of pedipalp inner side; 117. free tergites I-III from above.

Colour. Dominant colour blackish-brown with yellow to orange between the black pattern, carapace and ocular tubercle as in Fig. 113, scute with strongly crescentic black markings laterally, enclosing a confused central one with yellow and black reticulation, free tergites blackish, the enlarged spines of II and III light yellow; ventral surface with symmetrical
dark markings laterally, yellow in the middle, sternites blackish; mouthparts yellowish with ill-defined blackish annulations and reticulations. Legs blackish-brown, coxae and trochanters yellowish, the latter with a black apical ring.

**Dorsal surface** with tubercles of anterior margin as in Fig. 113, the middle one considerably shorter than the outer lateral, ocular tubercle with a narrow conical process, directed upwards and forwards, the apex surpassing the anterior margin by a little; carapace smooth, a row of small granules on anterior margin at lateral angle; areas I-IV fairly uniformly covered with small granules about 3 deep, those of I smaller than the others, area V and free tergite I with 2 such rows, free tergites II and III as in Fig. 117 seen from above, each with a pair of well separated enlarged triangular spines, those of II considerably smaller than III; dorsal scute with a lateral row of granules only in anterior half, these irregularly duplicated.

**Ventral surface.** Coxae fairly regularly covered with distinct round granules, none of them enlarged; sternites with a regular row of distinct granules. Genital operculum as in Fig. 114.

**Pedipalp** with femur as in Fig. 116 seen from inner side, some large round granules above; patella with 2 inner, 1 outer tooth; inner side of tibia with 2 short alternating with 2 long spines, outer side with 1 long and 2 short on each side, tarsus on each side with 2 long spines and 3-4 shorter teeth.

**Chelicera.** Segment I smooth above, divided into two sections by a ridge, below on outer side with a sharp triangular tooth; segment II without granules, Fig. 115.

**Legs.** Short and stout, femora III and IV with a sigmoid curve, all legs minutely granular to tibia; coxae from above without enlarged granules. Tarsal segments 5:8:6:7.

**Dimensions:** Total length 4, pedipalps 2.8, legs 6.5; 9.3; 6.6; 9.7 mm.

**Suborder** Palpatores

**Family** PHALANGIIDAE

*Key to the genera of Phalangiidae (Males) (Central and East Africa)*

1. Segment I of chelicera ventrally with a forwardly directed process; claw of pedipalp with comb-teeth .......... *Odontobunus* Roewer (Liobuninae)
   - Segment I of chelicera ventrally without a forwardly directed process .......................................................... 2 (Phalangiinae)

2. Spines of tergites in groups of 3 or 4, confined to a median strip of dorsal surface; chelicera not enlarged ........................................... 3
   - Spines of tergites not in groups of 3 or 4, in rows extending right across the body; chelicera enlarged, or normal and similar to those of the females ................................................................. 4
3. The two thoracic segments not spined; spines of abdominal tergites I-IV long, arranged in a contiguous cluster of 3 each ...... Cheops Soerensen
   - Thoracic segments behind ocular tubercle spined; spines of tergites short, separate, in rows of 4 each ........................................... Ruandella Roewer
4. Segment II of chelicera much swollen, almost globose, segment I normal ................................................................. Guria Loman
   - Segment II of chelicera not inflated, more or less similar to I ........ 5
5. Both segments of chelicera usually elongate, cylindrical .......................................................... Dasylobus Simon
   - Neither segments of chelicera enlarged or elongate, similar to those of the females .......................................................... 6
6. Supra-cheliceral lamella smooth; pedipalp-patella with or without apophyses ........................................................... Rhampsimitus Simon
   - Supra-cheliceral lamella with a pointed granule; pedipalp without apophyses ........................................................... Dacnopilio Roewer
7. Only leg I much incrassate, especially femur; anterior margin of carapace with 1-2 spines in the middle ........... Cristina Loman
   - Leg I normal similar in the two sexes .......................................... 8
8. Patella and sometimes tibia and femur of pedipalp with apophyses .... 9
   - Pedipalp without apophyses ........................................................... 11
9. Tergites, ocular tubercle, legs with numerous long conspicuous spines; anterior margin of carapace in the middle with a pair of long, forwardly projecting spines ........................................................... Odontosoma Silhavy
   - Tergites and legs with small, weak granules; carapace in the middle without a pair of spines .................................................. 10
10. Ocular tubercle small, low, with 4 pairs of short spines; spines of tergites minute, obsolete ........................................... Dasylous Simon
    - Ocular tubercle tall, slender, with 2 pairs of long, slender, nearly horizontal spines; spines of anterior tergites large, of posterior ones small, absent on the last three ........................................ Megistobunus Hansen (M. elegans Roewer)
11. All tergites with transverse rows of small spines; ocular tubercle with 2 pairs of almost vertical spines; segment II of chelicera normal ........
    - Only the first two abdominal tergites with 1 long spine each or with 2-3 enlarged spines in the middle; ocular tubercle with 4 pairs of spines, the anterior and posterior long; anterior surface of segment II of chelicera with rounded hairy process near its apex ........ Chelibunus Roewer

Genus CHEOPS Soerensen (Figs. 118-121)

The genus, represented by six species, all from East Africa, is a quite distinct one, easily recognised by the peculiar arrangement and fixed number of the dorsal spines. The genus appears to be aberrant in having the claw of the pedipalp toothed, Fig. 121, a character which does not seem to have been observed by the author of the genus, Soerensen. A syntype of minor
Roewer and the ♂ type of albidorsum Roewer both have 3 or 4 small teeth at the base of the claw. According to Roewer's key (1923, p. 810) it should not be included in the Phalangiinae; neither however can it be placed with the Liobuninae or Gagrellinae since both these subfamilies are characterised by a large forwardly directed spine on the ventral surface of segment I of the chelicera. For the meantime I think it should be retained in the Phalangiinae.

Roewer does not give any secondary sexual characters for distinguishing the males; these characters are very poorly developed but I think that males differ from the females in their different and generally darker colouring, smaller size, longer legs and in having a continuous strip of fine granulation occupying most of the ventral surface of pedipalp-tarsus, Fig. 120.

Key to the species of Cheops

1. Femora and patella of legs I-IV with 2-3 small teeth at their dorsal apices ................................................................. 2
   - Femora and patellae of legs I-IV without teeth .................. laeipes Roewer
2. Edge of carapace on each side of gland openings without spines; dorsal spines of abdomen situated on a sharply defined, pale yellow median marking ................................................................. albidorsum Roewer
   - Edge of carapace on each side of gland openings with 1 or more spines; abdomen without a dorsal median yellow marking .................. 3
3. Edge of carapace on each side of gland opening with a group of 4 spines; body length 5, leg II 3½ times body length ................... armatus Soerensen
   - Edge of carapace with 1 spine on each side of gland opening; leg II 4-7 times body length ................................................................. 4
4. Coxa IV at its anterior apex with a tooth-like spine; leg II 4 times body length ......................................................... minor Roewer
   - Coxa IV without a spine at its anterior apex; leg II 6-7 times body length ................................................................. longipes n. sp.

Cheops longipes n. sp. - (Figs. 118-121).

Holotype 1 ♂ (109602), 1 ♀ allotype (109603), Kilimanjaro, N. of Marangu, towards the S.E., 2500 m., 15-VI-1957.

♀. Colour. Spines of ocular tubercle and a median dorsal band including them, mottled white; a median pair of short parallel white stripes between ocular tubercle and anterior margin of carapace; abdomen with an ill-defined, mottled lighter median band including the spines, a large blackish marking on each side opposite the second row of spines, rest of dorsal surface mottled with black and white spots. Ventral surface in general dirty brown, apical third of coxae blackish brown, a dark spot at their bases and at base of genital operculum on each side. Pedipalp femur-tibia blackish above except at apex, tarsus entirely light yellow; chelicera, segment I with diffuse dark markings, II yellow. Legs brown, femora and tibia of I, III and IV with a distinct band in the middle, that of IV wider.
Dorsal surface as in C. minor Roewer, but the spines of ocular tubercle and abdominal tergites much shorter, more as in armatus Soerensen, 1 small spine anterior and posterior to the gland openings; the 2 middle spines of ocular tubercle a little shorter than the others. Legs spined as in C. minor, coxa II with a sharp spine at posterior apex but IV without or with a very short blunt one at anterior apex.

Figs. 118-123. Cheops longipes n. sp., ♀, 118. trochanter and base of femur of pedipalp; 119. pedipalp-patella from above; 120. part of ventral surface of pedipalp-tarsus, enlarged; 121. claw of pedipalp. Rhampsisinus angulatus n. sp., 122. chelicera of ♀ from outer side. Rhampsisinus brevipalpis n. sp.; 123. chelicera of ♀ from outer side.

Pedipalp femur with setae rising from ventral round tubercles in basal three-fourths, patella without apophysis, tarsus ventrally without teeth or granules.

Legs long and slender, only the femora with some rows of weak spiniform granules, II 6 times as long as body.

Dimensions: Length of body 3.6, leg II 21.5 mm.
δ. Differing from the ♀ as follows: abdomen in the middle with a uniformly yellow, well defined sub-rectangular marking enclosing the spines, which are blackish-brown; ocular tubercle above with a clearly defined median yellow stripe, colouring of dorsum otherwise as in the ♀. Coxae as in the ♀ but with only 1 dark spot near base of IV posteriorly, anal operculum with a black dot in the middle. Legs much darker, blackish-brown (femur II brown), pedipalps entirely blackish except at apices of femur-tibia, chelicera blackish-brown.

**Pedipalp** femur clothed with black setae, which, in its basal three-fourths ventrally rise from small round tubercles, Fig. 118; trochanter similarly in distal half; patella without an inner apophysis apically, Fig. 119, tarsus ventrally with two narrow strips of minute tooth-like granules along the whole of its length, though not reaching the apex of the segment, Fig. 120, giving it a file-like appearance; these strips are not present on the pedipalp of the ♀ or with only a few scattered granules; claw of tarsus with 6 distinct slender teeth basally, Fig. 121. Femora of legs with distinct rows of small sharp spines, stronger than in the ♀, leg II 7 times as long as body.

**Dimensions**: Length of body 3.2, leg II 23 mm.

The species seems nearest to *C. minor* in the arrangement and number of the spines, but differs in its larger size, the shorter spines of the ocular tubercle and tergites, colouring, longer and much more slender legs. According to Roewer the body length of the type is only 1.5 mm and we assume that this must be the male form although the sex is not specified in the description. It also differs from the ♀ type of *albidorsum*, which appears to be very immature, in the characters mentioned above.

**Additional material**: 1 δ, 1 ♀ (109637-109638) Kilimanjaro, in montane forest of superior peak, 2950 m., 16-II-1956; 2 δ, 2 ♀ (109569-109572) and 1 δ (109574) Kilimanjaro, N. of Marangu, towards the S.E. at 3000 m., in alpine prairie, 16-VII-1957.

The last record is a much darker δ, the legs, except coxae and trochanters which are yellow, being entirely black; spines of abdomen black, rising from a black marking.

**Genus GURUIA LOMAN**

Key to the species of Guruia (Males) (Central and East Africa)

1. Ocular tubercle with 2 dorsal spines on each side ........................................
   ................................................................................................................. **quadrispina** Roewer
   - Ocular tubercle with 3-5 dorsal spines on each side ............................ 2

2. Ocular tubercle with 5 dorsal spines on each side .......... **tetea** Roewer
   - Ocular tubercle with 3 or 4 dorsal spines on each side ........................ 3
3. Pedipalp patella without a medial apophysis distally ............................ 4
   - Pedipalp patella with a medial apophysis distally ............................ 7
4. Pedipalp femur ventrally with a row of small tooth-like granules ........
   .......................................................................................... frigescens LOMAN
   - Pedipalp femur ventrally quite smooth ........................................... 5
5. Whole of anterior surface of segment II of chelicera granular ..............
   .......................................................................................... nigra ROEWER
   - Distal half or more of anterior surface of segment II of chelicera smooth ................................................................................. 6
6. Immovable finger of chelicera with a sharp outward bend; coxae
   I-IV smooth ........................................................................................ africana (KARSH)
   - Immovable finger of chelicera straight; coxa I granular, II and III with
     minute granules ................................................................................ mossambica LAWRENCE
7. Segment II of chelicera entirely smooth .............................................. 8
   - Segment II of chelicera granular ....................................................... 9
8. Pedipalp femur smooth ventrally; ocular tubercle with 4 short spines
   dorsally .............................................................................................. palpinatis ROEWER
   - Pedipalp femur with a row of granules ventrally; ocular tubercle with
     3 spines dorsally .............................................................................. levis LOMAN
9. Carapace in front of ocular tubercle quite smooth; dorsal spines of
   ocular tubercle long and slender ........................................................... 10
   - Carapace in front of ocular tubercle granular; spines of ocular tubercle
     shorter and thicker ............................................................................. 11
10. Segment I of chelicera quite smooth ventrally ................................. longipes ROEWER
    - Segment I of chelicera with 3-5 strong tooth-like spines ventrally ....
        .............................................................................................. leucobunus ROEWER
11. Segment II of chelicera from in front subangular in outline; immovable
    finger with 1 large tooth in middle of its cutting edge ....................... 12
    - Segment II of chelicera from in front rounded in outline; immovable
      finger with 2 teeth, 1 subapical, 1 subbasal .................................... 13
12. Dorsum of femur near apex and patella of pedipalp granular ............
    .............................................................................................. palmatimana POCOCK
    - Pedipalp entirely smooth .................................................................. mescuitnea ROEWER
13. Whole of segment I of chelicera thickly covered with granules .......... obtus
    - Segment I of chelicera with sparse granules, the sides for the most part
      smooth ............................................................................................ 14
14. Whole of anterior surface of segment II of chelicera finely granular; coxa
    I granular; dorsum of abdomen deep blackish brown . matengona ROEWER
    - Distal third of anterior surface of segment II of chelicera smooth; coxae
      smooth-matt; dorsum of abdomen grey-yellow .............................. ukerewia ROEWER
Genus GURUIA LOMAN

Guruia mossambica LAWRENCE


It seems quite extraordinary that these specimens, taken at such great altitudes and separated in distance by about 15° of latitude, should be identical with G. mossambica which lives in forests a few hundred feet above sea level on the Zambesi river, Portuguese East Africa; yet I can find no specific differences between the two.

A ♂ (109259) from Mt. Oldeani, towards the East, in bamboo forest at 2350-2500 m., 6/9-VI-1958, differs in the following details from mossambica.

Ocular tubercle with the anterior pair of dorsal spines minute, granuliform, further from the middle pair than these are from the posterior; anterior edge of carapace with a pointed granule in the middle, on each side of it a small cluster of 6-7 small granules, a group of about 10 similar granules at the antero-lateral angles of the carapace; between these and ocular tubercle but nearer to the latter, 3-4 small granules; transverse rows of granules on tergites minute, no transverse grooves. Outer surface of segment II of chelicera distinctly concave, the granules of anterior surface large and sharp, reaching further distally than in mossambica; granulation of posterior surface very coarse, reaching to the base of the fingers; movable finger smooth, no group of minute granules on its outer basal surface as in mossambica. Coxae II-IV entirely smooth, I with minute scattered granules becoming a little larger distally, its distal margin bordered by a row of moderate sized granules. Legs almost smooth, only dorsal surfaces of femora with minute inconspicuous granules. Colouring as in mossambica.

Dimensions: Length of body 7.7 (with chelicera 13.5), pedipalp 11.8, chelicera I + II = 4.8 ± 7.5, leg II 40 mm.

I do not however consider that any of these details merit specific distinction.

Genus RHAMPSINITUS SIMON

Key to the species of Rhampsinitus (Males) (Central and East Africa)

1. Ocular tubercle with 2 pairs of dorsal spines ........................................ 2
   - Ocular tubercle with more than 2 pairs of dorsal spines ....................... 3

2. Femur of leg I without enlarged teeth at ventral apex; abdominal tergites I-V fused to form a hard scute .................. scutiger ROEWER
   - Femur of leg I with 5 very large pointed teeth at ventral apex; tergites of abdomen normal .................................................. quadrispina ROEWER

3. Ocular tubercle with 3 pairs of dorsal spines ....................................... 4
   - Ocular tubercle with more than 3 pairs of dorsal spines ..................... 6
4. Pedipalp slender, 3 times as long as body, the femur finely granular ....

- Pedipalp short, not much longer than body, femur quite smooth .... 5

5. Both segments of chelicera with numerous spines .... brevipalpis n. sp.
- Only segment I of chelicera with 2 tooth-like ventral spines .........

- spinifrons ROEVER

6. Ocular tubercle with 4 pairs of dorsal spines ........................................ 7
- Ocular tubercle with more than 4 pairs of spines ................................. 10

7. Pedipalp very weak and shorter than segment I of chelicera ..................

- Pedipalp much longer than segment I of chelicera .............................. 8

- Pedipalp shorter, twice or less body length ........................................... 9

8. Pedipalp very long and slender, 3½ times body length ........ ater ROEVER

9. Pedipalp-patella with apophysis, segment I of chelicera with only 3 large
ventral teeth; legs long, slender, cylindrical, with weak spines ..........

- Pedipalp-patella without or with very slight apophysis; segment I of
chelicera with numerous teeth; legs shorter, thicker, angular, with
strong spines ........................................... angulatus n. sp.

10. Femora I-IV cylindrical; segment I of chelicera with a regular ventro-
lateral row of teeth ........................................... pictus (SØRENSEN)
- Femora I-IV angular; segment I of chelicera with or without teeth but
not forming a regular row ........................................... 11

11. Ocular tubercle with a dorsal comblike row of 4-6 large teeth; segment I
of chelicera without teeth or granules ventrally ........ montanus SØRENSEN
- Ocular tubercle with 6 minute well separated teeth dorsally; segment I
of chelicera with some irregular granulation ventrally .... lettioui ROEVER

Rhamphsinus angulatus n.sp. - (Fig. 122).

Holotype 1 ♂ (109506), 1 ♀ allotype (109507) Kilimanjaro, Marungu,
plantations and cultivated zone, collected 20/27-VII-1957.

♂ Colour of dorsum brown, mottled with some white and black spots,
without a distinct pattern; sternites and genital operculum light brown, coxae
a little darker, the apical third dark brown; legs brown, femur I and patellae
I-IV blackish-brown; segment I of chelicera brown, darker at the sides and
below, II brown, darker along outer side and at base, anterior surface with
a few small dark dots; pedipalp light brown except tarsus which is yellow
but blackish at base.

Dorsal surface. Anterior margin of carapace with a cluster of 5-6 small
spines in middle line. 3-4 at antero-lateral angle, between these and ocular
tubercle 5-6 widely separated small spines; ocular tubercle low, longer than
high, with 3 pairs of short dorsal spines, another single one on posterior surface; in other paratypes a pair of additional spines on posterior and anterior surfaces (5 in all) or these represented by a single spine between the rows; tergites with irregularly duplicated rows of distinct small sharp granules.

**Ventral surface** smooth matt.

**Chelicera** spined as in Fig. 122, seen from outer side, ventral surface of segment I quite smooth in the middle, outer edge with a saw-like row of 4 equal-sized sharp teeth; inner surface with a few spines in basal third; segment II with only 1 subbasal spine anteriorly.

**Pedipalp** with all segments smooth, patella without or with a very slightly projecting, rather pointed apophysis at inner apex.

**Legs.** Femora with very distinct rows of sharp tooth-like granules, equal sized on all legs and without enlarged teeth at ventral apex of femur I; tibia I deeper than femur; tibia and patella unspined but with keels giving them an angular structure, more marked in I and III than in II and IV.

**Dimensions:** Length of body 5, chelicera I + II = 1.2 + 1.8, leg II 30 mm.

♀. With a dark brown median band on dorsum, a little more than a third width of abdomen, subparallel or a little wider posteriorly, a yellow-white dorsal stripe on ocular tubercle. Granules of tergites much smaller than in ♂, quite indistinct; granules of femora much weaker than in ♂ but tibia of leg I very thick, exceeding that of ♂ and relatively much wider than metatarsus as compared with the ♂; pedipalp patella with the apical apophysis small and inconspicuous; chelicera with 1 or 2 granules on ventral surface of segment I basally, or none.

**Dimensions:** Length of body 6.5 mm.

**Additional material:** 1 ♂ (109495), 1 subadult ♀ (109508), 1 ♀ (109493), 1 ♀ (109509) and 1 ♀ (109494) with the same data as the type; 1 subadult ♀ (109573), Kilimanjaro, N. of Marangu, in montane forest humus, 22-VII-1957; 1 ♂ from (109411-109414), Kenya, Mola, Mau Escarpment, at 2150-2200 m., 11/12-IV-1957.

Rhampsinitus brevipalpis n. sp. - (Fig. 123).

**Holotype**, 1 ♂ (109375), Mt. Hanang, towards the S., in Helichrysum prairie, at 2400 m., collected 22/30-VI-1957.

**Colour** dark brown with some black spots and markings not forming a definite pattern; sternites and genital operculum very light brown; coxae dark brown, the middle portion much lighter; chelicera blackish brown; pedipalp dark brown, the tarsus lighter; legs brown (femur II yellowish), the tarsi darker distally, blackish at their apices.

**Dorsal surface.** Carapace with two rows of 6-7 spines between ocular tubercle and its anterior margin; on each side of these rows the anterior margin of carapace bordered by an irregular row of small spines, another spine on each side near base of ocular tubercle; ocular tubercle about as high as long, with 3 pairs of moderately long spines, the anterior pair a little shorter; tergites with minute well separated spines but in regular rows.
Ventral surface. Coxa I roughened with small scattered granules, II-IV smooth; sternites and genital operculum quite smooth.

Pedipalps very short, without granules, femur ventrally with the usual short setae rising from small round tubercles.

Chelicera as in Fig. 123 from outer side; segment I with inner surface quite smooth except on upper edge in distal two-thirds and whole of ventral edge, ventral surface quite smooth except for a group of small granules basally; segment II on its outer surface in the middle with the faint impression of a blunt keel; inner surface almost smooth, a few granules anteriorly, anterior surface roughened with small scattered granules in proximal two-thirds.

Legs. Femora armed with distinct rows of moderate sharp spines, those of II fewer and smaller; patellae and tibiae unspined except for 2-3 minute ones at ventral apices of patellae III and IV; tibiae of I, III and IV bluntly angular.

Dimensions: Length of body 6, pedipalp 7.3, chelicera I + 2 = 2.3 + 4, leg II 34 mm.

In the key to the East African forms of Rhampsinitus the species would fall nearest to niger Sørensen; it can be easily distinguished from this species however in the very much shorter pedipalp which in niger is very long and slender, being more than 3 times body length.

Additional material. 1 ♀ (109376) and 1 immature ♀ (109377) with the same data as the type; 4 ♀ ♀ (109333-109336) with the same data as the type but collected at 2300-2400 m., on 29/30-V-1957.

Rhampsinitus niger Sørensen

1 Subadult ♂ (109547) Kilimanjaro, Marangu, towards the S.E. at 1600-1750 m., collected 13/20-VII-1957; 1 subadult ♀ (109515), Marangu, collected 20/27-VII-1957.

Rhampsinitus bettoni (Pocock)

1 Subadult ♂, 5 ♀ ♀ (109618-109623) Kilimanjaro, towards the S., 4200-4600 m., in alpine prairie, 18/20-VII-1957; 2 ♀ ♀ (109315-109316) Ngorongoro Mts., at 2400-2500 m., in the nests of Tachyoryctes, collected 14/17-VI-1957.

Rhampsinitus sp.

1 Subadult ♀ (109659) Kilimanjaro, N. of Marangu, collected 22-VII-1957; 3 subadult ♀ ♀ (109639-109641), Kilimanjaro, upper peak in montane forest at 2950 m., collected 16-II-1958.
Genus **CHELIBUNUS** Roewer

*Key to the species of Chelibunus*

1. The two middle spines on each side of dorsum of ocular tubercle not much smaller than the others ................................................. *pupillaris* n. sp.
   - The two middle spines of dorsum of ocular tubercle much smaller than the others ................................................................. 2

2. Ocular tubercle much higher than long; abdominal tergites I and II with each 1 long spine, tergites otherwise unspined ............... *africanus* Roewer
   - Ocular tubercle longer than high; thoracic and abdominal tergites with short as well as long spines .............................................. 3

3. First abdominal tergite with a single forked spine exceeding the ocular tubercle in height ................................................. *furcifer* Roewer
   - Thoracic and first 3 abdominal tergites with 2 or 3 enlarged spines but shorter than that of *furcifer* ........................................ *ruwenzorius* Roewer

**Chelibunus pupillaris** n. sp. - (Figs. 124-126).

*Holotype*, 1 g (109409) Kenya, Molo, Mau escarpment, 2150-2200 m., collected 11/12-IV-1957.

*Colour*. Dorsal surface with a fairly narrow subparallel light yellow median stripe, slightly widened posteriorly, in which the larger spines of the tergites are situated, remainder yellow brown mottled with black spots of varying size; ocular tubercle with a narrow lighter stripe dorsally, the sides blackish; sternites and genital operculum very light yellow-brown, mottled with dark brown; coxae light, the distal halves strongly contrasted dark brown; chelicerae yellow but whole of outer surface of segment I, and segment II basally, brown; pedipalps yellow with some black spots. Legs: femora black, distal segments blackish-brown, metatarsi and tarsi lighter; coxae, trochanters and extreme base of femora, yellow.

*Dorsal surface*. Anterior margin of carapace with no tooth or spine in the middle; carapace with narrow sharp erect spines as follows: 1 on each side of opening of gland at antero-lateral angle, 1 on each side between ocular tubercle and anterior margin lateral to the middle line, 1 laterally near base of ocular tubercle, 2 more between this and antero-lateral angle; ocular tubercle as in Fig. 124; thoracic and first 5 abdominal tergites with rows of granules, those of IV and V small, the two middle spines of abdominal tergites I-III distinctly larger.

*Ventral surface*. Coxae and sternites smooth matt.

*Chelicera* as in Fig. 125 seen from inner side, a slight round protuberance on the anterior surface of segment II near its apex.

*Pedipalp*. Femur dorsally with an irregular row of small black, blunt spines; tarsus ventrally with a strip of minute granuliform spinules, entire in proximal half, dividing at the middle into two narrow strips, fig. 126.
Legs not long, with small weak spines, especially ventrally, tibiae I and III bluntly angled, IV very weakly so; femur I distinctly thicker than in remaining legs, tibiae of I, III and IV thicker than the corresponding femora.

Dimensions: Length of body 4.4 pedipalps ± 4.2 mm.

This species, though based on a perhaps not mature female, is quite different from the three others hitherto described by Roewer. The definition of the genus should be amended by the omission of the character « ocular tubercle twice as high as wide at base », this being true only of africanus. The best distinguishing characters seem to be the spination of the ocular tubercle, the weak armature of the legs and the rounded swelling at the apex of segment II of the chelicera.
Additional material: 1 ♀ (109410) with the same data as the type does not have a distinct dorsal lighter band in the middle of abdomen; pedipalp-patella with a fairly large apophysis. 2 ♀ ♂ (109411-109414) and 2 ♀ ♂ (109418-109419) with the same data as the type.

Genus MEGISTOBUNUS HANSEN

Key to the species of Megistobunus

1. Ocular tubercle with a long anterior and posterior pair of spines almost horizontal, the middle pair obsolete .................................................. elegans ROEWER
- Ocular tubercle with 3 pairs of almost vertical spines, the middle pair as large as the others ................................................................. funereus n. sp.

Megistobunus funereus n. sp. - (Figs. 127-131).


Colour. Dorsal surface entirely black, ventral surface black but genital operculum brown, the areas bordering it light yellow, coxae blackish brown, light at their bases; pedipalp blackish, tarsus lighter, femur and patella with a narrow apical yellow ring; chelicera blackish-brown, the fingers yellow on basal half or more; legs black above, ventrally a little lighter, especially femur II.

Dorsal surface as in Fig. 129, anterior margin of carapace quite unarmed in the middle; ocular tubercle as in Fig. 127, with 3 strong triangular spines on each side, the middle and posterior subcontiguous; first thoracic tergite without spines, second with 2-3 at the side; abdominal tergites with 6-10 strong spines, the middle one very large, only the last 4 small tergites separated by grooves, the first four entirely without.

Ventral surface. Coxa I with small and not numerous granules, II with still fewer, hardly perceptible granules, almost smooth. III and IV quite smooth.

Chelicera as in Fig. 128 seen from outer side.

Pedipalp quite unarmed except for 6 small pointed tooth-like granules on dorsal surface of femur, 2 more at distal dorsal apex; patella with a short apophysis as in Fig. 131 seen from above, Fig. 130 from inner side. Claw quite smooth.

Legs. Legs long and slender, with weak femoral spines, those of IV strongest, of II weakest; legs not incrassate or angled, patella and distal segments smooth, cylindrical.

Dimensions: Length of body 4.2, of pedipalp 5; chelicera I + II = 1.4 + 2.2 mm., of leg II 37.6.

♀. A topotype and paratype ♀ (109001) differs from the ♂ as follows: Colouring in general lighter, dorsal scute brown, the posterior tergites much lighter; ventral surface much lighter, genital operculum, sternites and proximal halves of coxae yellow-white. Legs much lighter than ♂, especially metatarsi and tarsi and femora II and IV which are yellow to light brown.
Spines of tergites much smaller, only the middle ones of moderate size, thoracic tergites however both with a row of small sharp teeth. Segment I of chelicera with a large shiny granule on outer side of dorsal surface in the middle, both segments otherwise quite smooth and shiny. Pedipalp patella with an apophysis similar to that of $\delta$. Legs much more slender but not longer, femora more weakly toothed.

**Dimensions**: Length of body 7, leg II 35 mm.

In another $\delta$ from the same locality as the type (109010) the spines of dorsal surface are larger and stronger; abdominal tergites I-V dark, forming a scute, the posterior 3 and anal operculum much lighter; first thoracic ter-

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Figs. 129-135. Megistobunus funereus n. sp. $\delta$, 129. dorsal surface from above; 130. pedipalp-patella from inner side; 131. the same from above. Dacnophilus scopulatus n. sp. $\delta$; 132. chelicera from outer side; 133. segment I of chelicera (enlarged) from inner side; 134. pedipalp-femur from the side; 135. ocular tubercle.
gite with 3 small spines on each side, the second with a row of 5-6 moderate ones and 2 sharp spines on its extreme lateral edge.

Additional material: 2 ♂ ♂ (108999-108990), 1 ♀ (109011), 1 immature ♀ (109009), 2 immature ♀ ♀ (108997-108998), 2 ♀ ♀ (109001 and 109002), 1 ♂ (109010) and 2 immature ♀ ♀ (109045-109046) with the same data as the type; 3 ♀ ♀ (109174-109178) Bunduki, Mungulu Gorge, Uluguru Mts., in transitional forest at 1500 m., collected 1/6-V-1957.

Genus DACNOPILIO Roewer

Key to the species of Dacnopilio (Central and East Africa)

1. Legs angled, pedipalp-femur unarmed, pedipalp-tarsus with a row of minute granules ventrally .................................................. pteronis (Soerensen)

- Legs cylindrical, pedipalp-femur with a row of granules dorsally; pedipalp-tarsus without granules but with thick scopula ventrally .................

.......................................................... scopulatus n. sp.

Dacnopilio scopulatus n. sp. - (Figs. 132-136).

Holotype 1 ♂ (108830), Mt. Meru, Olkokola, towards the N. West at 3600 m., collected 2-VII-1957.

Colour. Dorsal surface rich chocolate brown, mottled with symmetrical black and white dots and stripes but without a definite median marking; coxae entirely blackish-brown, sternites dark brown mottled with lighter spots, genital operculum blackish brown in posterior half, much lighter in anterior half; chelicera blackish, the fingers yellow brown; pedipalp blackish, distal half of tarsus light brown; legs blackish with some indistinct lighter mottling, divisions of metatarsus IV yellow.

Dorsal surface with large, strong, numerous spines as in Fig. 136, thoracic tergite II with a regular row of 12-13 almost equal sized spines; abdominal tergites with rows of strong distinct spines bent forwards in the middle, the middle one a little in advance of the others and distinctly larger; abdominal tubercle seen from the side as in Fig. 135, 4-5 short triangular spines on each side dorsally forming an irregular row.

Ventral surface. Coxa I roughened with small well-separated granules, II-IV smooth.

Chelicera as in Fig. 132 seen from outer side, segment I from inner side as in Fig. 133 (under larger magnification than in Fig. 132).

Pedipalp. Femur with a row of 9-10 small granules on dorsal surface, irregularly duplicated basally, Fig. 134, otherwise entirely unarmed; tarsus without a row or strip of minute granules ventrally but instead a thick scopula along its entire length; patella similar but with the scopula less dense.

Legs. Femora with rows of weak, small, well-separated spines, those of I larger than the others; tibia and metatarsus I with a row of minute but distinct ventral spines, these segments quite smooth in the remaining legs; all patellae at distal dorsal apex with 3 minute spines.
Dimensions: Length of body 5, pedipalp 5, chelicera I + II = 2 + 3.2, leg II 41 mm.

Fig. 136. *Dacnopilio scopulatus* n. sp.  ♂, dorsal surface.

The species belongs to the genus *Dacnopilio* according to the definition given by Roewer since the lamella just above the chelicera bears two small, but distinct, almost contiguous granules which do not seem to be present in *Rhampsinitus* and most other genera of *Phalangiinae*. Nevertheless I do not know whether a generic separation from *Rhampsinitus* is justified on the basis of this seemingly rather slight character, since in all other respects *D. pteronius* and *D. scopulatus* would agree with *Rhampsinitus*. The three species from North and West Africa might show more definite characters on which they could be separated in the genus *Dacnopilio* while the two East African forms should perhaps be accommodated in *Rhampsinitus*. 
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