

NOTES ON EAST AFRICAN *CETONIINÆ* (COLEOPTERA,  
*Scarabæidae*). Pls. A. and B.

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GENERAL INTRODUCTION.

The *Cetoniinæ* form a sub-family of the great family *Scarabæidæ*, which is one of the best defined of the families of beetles, and can be readily recognised by their lamellate or folding antennæ. The "Rose Chafer" of Great Britain is a well-known example. The sub-family is poorly represented in Europe and is specially abundant in the warmer regions of the earth, more particularly in Africa and the Oriental region. About four or five hundred species have been described from the African Continent. When Eastern Africa has been properly worked for the group there is little doubt that this number will be found to exist there.

One of the chief features of the *Cetoniinæ* is, in very many species, the remarkable beauty of their colouration. They are also conspicuous for large horns and projections arising from the head and thorax. Many species are adorned with intricate patterns, these usually taking the form of an arrangement of white or light-coloured spots and bands. They are mostly large or moderately sized insects, oblong-ovate, and slightly convex in shape. Numerous species are metallic, shining, and entirely glabrous and these, where the primary colour appears to be green, show great variation. Green passes into fiery gold, red and purple in one species. Colour is therefore of little specific importance. Very many species are covered with a close, powdery substance which gives them a dull, velvety appearance. Others are densely pubescent and have, on the wing, great resemblance to certain bees which occur in the same locality.

One group contains the well-known Goliath beetles which are the largest coleopterous insects occurring in Africa (Pl. A.). Another, the *Cremastochilina*, contains small, compact, sombre-coloured insects inhabiting the nests of ants and termites. Their appearance is probably due to their mode of life and crepuscular habits, unlike the great majority of the *Cetoniinæ* which are strictly diurnal.

As pointed out by Arrow\*, the sub-family judging by its exuberant colours and by its mode of life may be considered a dominant one, of comparatively late evolution, and enjoying at the present time the maximum of vigour and prosperity.

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\* Faun. Brit. India Col. *Cetoniinæ*, 1910, p. 24.

PLATE A.

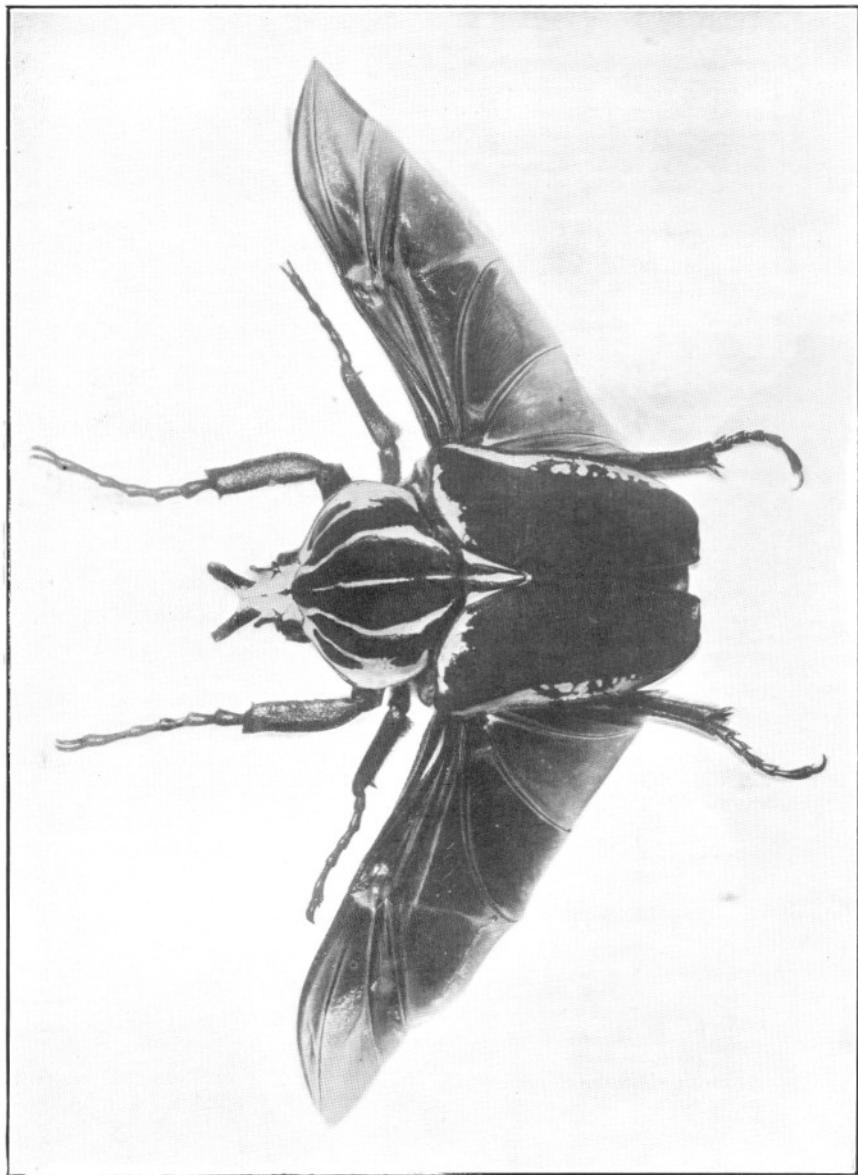


Photo: Dr. van Someren.

*Goliathus giganteus*, ♂ N.S.

### STRUCTURE.

The exo-skeleton is very hard, compact, and chitinous. The abdomen consists of six ventral segments and the whole body is capable of great muscularity. The front of the head is well developed and it is from this and not from the pronotum that the large appendages in the male usually arise. The pronotum fits very closely to the base of the elytra and the scutellum is often concealed wholly or in part. The elytra fit closely to the body and are often much reduced at the sides thereby exposing the lateral portions of the back. The species fly freely and instead of the elytra being prominently raised as in most *Coleoptera*, they are only slightly elevated and the wings are slipped out between their lateral edges. This accounts for the general consolidation of the parts of the body. The wings are usually pigmented dark brown or blue-black. The femora are normal, but the tibiæ are usually toothed externally at least in the female. Tarsi five-jointed. Antennæ 10-jointed, of which the club consists of the last three. Eyes large and prominent. The mouth is only adapted for very soft or liquid food, except in the *Cremastochilina* in which the mandibles are strong and adapted for biting.

A very excellent Monograph on the internal anatomy of the common European Cockchafer, *Melolontha vulgaris*, was published in 1828 by Strauss-Duckheim and to this we would refer the interested reader, as there are few points of difference between the internal morphology of the *Melolonthinæ* and the *Cetoniinæ*.

### SEXUAL DIMORPHISM.

The males in genera such as *Dicranorrhina* and its allies bear upon the head a horn or complicated projection, which is absent in the females. A more constant sexual difference is to be found in the structure of the legs. The anterior tibiæ of the female are always toothed externally and are used for digging purposes. In the male the tibiæ are more slender and the teeth are reduced or absent. Colour constitutes a sexual distinction in some genera, the male being brightly coloured while the female is dull and obscure.

The use or function of the various cephalic processes found in the males is very largely a matter of speculation. Certain observations have been recorded where males have been seen in battle with the antlers interlocked. In many genera, however, this would be impossible as the horns are either curved backwards or in such a manner as to render futile their use as weapons. These insects must find such appendages a definite impediment in their normal functions and very probably a negative factor in the struggle for existence. Darwin's views (Descent of Man)

in regard to sexual selection are now largely rejected and it is possible that these appendages are only the result of a certain cell stimulus. An analogy may be found among the *Dinosaurs* and other enormous prehistoric reptiles which perished in the past owing to their great specialisation and their corresponding unfitness to compete in the struggle for existence.

Head and thoracic armature show an even more remarkable development in some other groups of *Scarabaeidae*, particularly among the dung-feeding *Coprinae* and in the *Dynastinae*. In some genera these structures are not limited to the males but are found in a lesser form among the females. These facts rather strengthen the view that the *Cetoniinae* are of more recent evolution than the remainder of the *Scarabaeidae*.

#### HABITS AND METAMORPHOSES.

In the Journal of this Society (No. 19, 1924) Dr. van Someren and the Rev. J. Wesley Hunt have given a full and very interesting account of the life history of *Diplognatha silicea*, McL. This is one of the commonest of East African *Cetoniinae* and the shining black beetle is a familiar pest of roses in Nairobi gardens. Unfortunately this is the only complete life-history of an African species known to me. Various European species have been studied and Fabre has published (*Souvenirs Entomologiques*, Vol. VIII.) detailed and careful accounts of the early stages of *Cetonia*, *Protaetia*, and *Oxythyraea*.

In most genera the female appears to burrow into vegetable debris or the accumulations of decaying leaves and there deposit her eggs. The larvæ are inactive, sluggish, and move on their backs. They live concealed, often underground, where they feed upon rotten wood or vegetable refuse. Some species, *Protaetia* and most *Cremastocheilina* deposit their eggs in ant's or termite's nests. The ensuing larvæ appear to have no special modification of structure and are apparently unmolested by the ants. They lead a secluded life feeding upon the woody material composing the nest.

The larval life is a long one, and after two or three years a cocoon is constructed from the food materials cemented together by an internal secretion of the intestine. Two or three months are passed as a pupa. The cocoon is then broken, the perfect insect emerges, makes its way above ground and commences to feed and live an active existence.

*Cetoniinae* do not appear to be of much economic importance, pests of cultivated crops being found in the allied sub-families of *Melolonthinae*, *Rutelinae*, and *Dynastinae*. As stated above *Diplognatha silicea*, and also various species of *Pachnoda* and *Rhabdotis*, as perfect insects, are disagreeable pests of roses. They feed upon the young flowers often destroying them before they have a chance to bloom.

So far there are no records of *Cetoniinæ* pests of cereals or crops and if these are subsequently discovered it will probably be in the larval and not the perfect stage that they are found to be harmful.

#### DISTRIBUTION.

It is difficult to say very much about the distribution of *Cetoniinæ* in East Africa until more collecting has been done over a very much wider area. It is only in the *Lepidoptera* that systematic collecting has been done and in no other group of insects can one speak with anything like finality. In the *Cetoniinæ* the same general conditions seem to obtain as in other groups of animals. The fauna of the forest areas of the West Coast stretches across the Congo, into Uganda, penetrates Kenya through Kavirondo and the Nandi Forests and comes to an abrupt halt along a hypothetical line drawn east of Kapsabet, roughly corresponding to the natural barrier of the Elgeyo-Mau Escarpment.

The fauna of Tanganyika west of Lake Victoria is also distinctly West African. East of the Mau Escarpment, in the Rift Valley, the fauna changes and remains more or less constant up to but not including the coastal belt. The range of the same insects is bounded in the South by the Usambara Mountains. South of this mountain range the fauna again changes and a strong South African element is introduced.

The East Africa and Uganda Natural History Society will be very glad to receive specimens of *Cetoniinæ* from any part of East Africa, as it is only by the examination of large collections from all parts of our area that we can form any adequate idea of the distribution of these interesting insects.\*

#### CLASSIFICATION.

The classification of the *Cetoniinæ* has always presented great difficulties owing to the similarity among the species of important morphological characters. The result of this has been the multiplicity of genera, some writers having shown a tendency to erect a new genus for every new species they encountered. Sexual dimorphism and variation in colour have been the major causes of this confusion. Important characters are found in the male genitalia but these are not as useful as in some families of *Coleoptera*.

The following key, adapted from Arrow (loc. cit. p. 28) will serve to distinguish the *Cetoniinæ* from the more closely allied sub-families of the *Scarabæidae*. It may be mentioned, however, that an acquaintance with the general facies of the insects will usually cause them to be readily recognisable.

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\* Specimens should be addressed to the writer, Box 216, Nairobi, and they will be deposited in the collection of the Nairobi Museum.

FAMILY SCARABÆIDÆ.

- Posterior spiracles situated in the dorsal part of the chitinous ventral segments.....*PLEUROSTICTI*  
(*Cetoniinæ*, etc.)
- Posterior spiracles situated in the membrane between dorsal and ventral segments.....*LAPAROSTICTI*  
(*Coprinæ*, etc.)

*PLEUROSTICTI.*

Labrum membranous, not exerted.

- Mandibles not visible externally; front coxae vertical.  
Mesosternal epimera dilated above and usually reaching the dorsal surface; base of the pronotum not meeting ridges upon scutellum and elytra.....*Cetoniinæ*
- Mesosternal epimera not dilated nor reaching the dorsal surface: base of the pronotum meeting ridges upon scutellum and elytra.  
Hind coxae widely separated.....*Valginae*  
Hind coxae contiguous.....*Trichiinæ*
- Mandibles partly visible externally; front coxae transverse .....*Dynastinæ*
- Labrum chitinous and visible externally.
- Posterior spiracles placed in strongly diverging lines: claws movable, unequal.....*Rutelinæ*
- Posterior spiracles placed in scarcely diverging lines: claws generally fixed and equal.....*Melolonthinæ*

The *Cetoniinæ* are divided by Arrow into two sections distinguished as follows:—

- Mandibles thin and not sharp-pointed nor adapted for biting, furnished with a free membranous inner lobe .....*Cetoniina*
- Mandibles strong and sharp, without a free membranous inner lobe.....*Cremastochilina*

The *Cetoniina* contain the majority of the sub-family. Sub-division of the section is rendered very difficult owing to the great similarity of its members in all essential points of structure. In the following list the species are grouped under the tribes enumerated by Schencking (*Catalogus Coleopterorum*, pars 72, 1921), but it is impossible to give a useful key until we have a fuller knowledge of the number of species and extent of the group in East Africa.

The *Cremastochilina* form a well-defined group owing to their homogeneous appearance. They are mostly small insects and sombre and obscure in their coloration. The mouth parts are strongly formed and adopted for biting. Most species are known to be termitobious or myrmecophilous. They apparently live in a state of harmony with their hosts but extremely little is known of their habits and any further observations will be of great interest.

The following list in no way pretends to be exhaustive or even representative but it has been thought advisable to collate what little knowledge we possess as a future basis for investigation. All the species enumerated have been examined and determined by the writer in the British Museum and care has been taken to obtain correct nomenclature.

Only those species in the collection of the Nairobi Museum (with the addition of a few in the writer's collection) have been listed. Others are recorded in the collections of the Entomological Divisions at Kampala and Kabete but, as it has been impossible away from Europe to check the synonymy, these have not been included. Thanks are due for the gift and loan of specimens to Mr. H. Hargreaves, Entomologist to Uganda, and Mr. C. B. Williams, of the Amani Research Institute, Tanganyika. As only a few species of the allied sub-families, *Trichiinae* and *Valginae*, have been yet discovered within our faunistic limits these have been added to the list.

#### SUB-FAMILY CETONIINÆ.

##### Section 1. CETONIINA.

###### TRIBE 1. GOLIATHINI.

- Genus: 1. *Goliathus giganteus*, Lamarck.  
*Syst. Anim. sans Verteb.*, p. 209 (1801).  
Uganda and Western Kenya as far as Rift Valley.
- Genus: 2. *Stephanorates dohertyi*, Jordan.  
Kenya (Uplands, Rabai Hills).
- Genus: 3. *Brachymitra thomasi*, Kolbe.  
Tanganyika, Kenya.
- Genus: 4. *Bettonia mutabilis*, Waterhouse.  
Kenya (Lumbwa, Rongai).
- Genus: 5. *Chelorrhina polyphemus*, F.  
*Spec. Ins. 1*, p. 14.  
Uganda (Mawakota), N.W. Kenya.
- Genus: 6. *Dicranorrhina micans*, Drury.  
*Ill. Exot. Ins. II.*, p. 59.  
Uganda, Kenya (Kaimosi).

PLATE B.

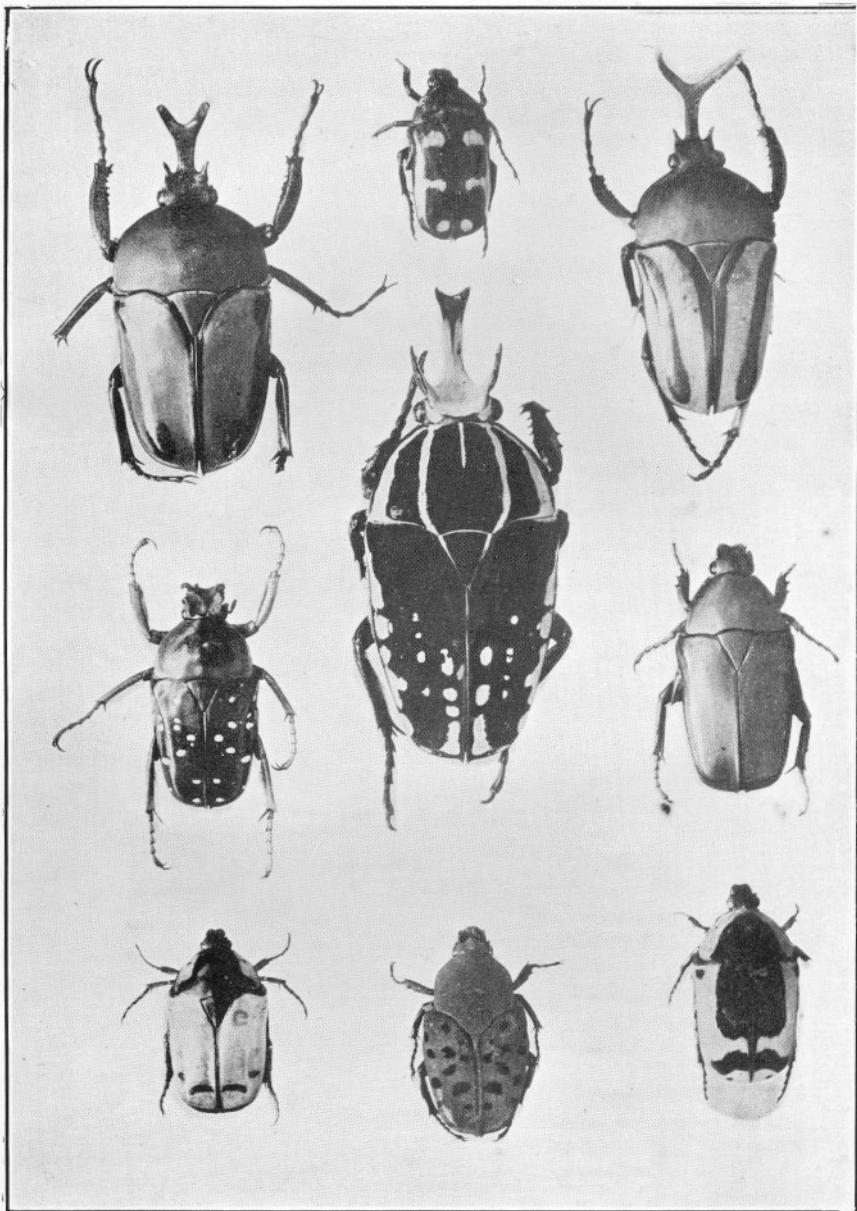


Photo: Dr. van Someren.

*Plaesiorrhina mhondana*, Oberth.

*Eudicella euthalia*, Bates.

*Eudicella gralli*, Buq.

*Stephanorrhina adelpha*, Kolbe.

*Eccoptocnemis barthi*, Har.

*Chelorrhina polyphemus*, F.

*Pachnoda divisa*, Gerst.

*Pachnoda sinuata*, F.

*Conradtia principalis*, Kolbe.

- Genus: 7. *Dicranorrhina oberthuri*, Deyr.  
*Bull. Soc. Ent. Fr.*, 1876, p. 82.  
Kenya (Rabai), Tanganyika.
- Genus: 8. *Eudicella smithi*, McLeay.  
*Ill. Zool. S. Afr.*, p. 34.  
Tanganyika.
9. *var. immaculata*, Heath.  
Kenya (Nairobi, etc.).
10. *Eudicella euthalia*, Bates.  
*Ent. Mo. Mag.*, Vol. 18, p. 156.  
Tanganyika.
11. *Eudicella gralli*, Buquet.  
*Ann. Soc. Ent. France*, p. 201 (1880).  
Uganda, Kenya (N.W.).
12. *Eudicella cupreosuturalis*, Bourg.  
Kenya (Yala R. Kakumega). Gedye Coll.
- Genus: 13. *Neptunides stanleyi*, Janson.  
*Entom. XII.*, p. 40.  
Uganda, Kenya (Kakumega), Tanganyika (Bukoba).
14. *Neptunides polychrous*, Thomson.  
*Bull. Soc. Ent. Fr.*, p. 106 (1879).  
Tanganyika.
- Genus: 15. *Ranzania splendens*, Bert.  
*Mem. Ac. Bologn.* VI., p. 420 (1855).  
Tanganyika.
- Genus: 16. *Taurhina longiceps*, Kolbe.  
Uganda, Kenya (N.W.), Tanganyika (Bukoba).
- Genus: 17. *Coelorrhina cornuta*, Heath.  
Kenya, Tanganyika, generally distributed.
18. *Coelorrhina selene*, Kolbe.  
Uganda, Kenya (Kakumega).
19. *Coelorrhina loricata*, Janson.  
*Cist. Ent.* II., p. 141 (1877).  
Uganda, Kenya (Kakumega).
- Genus: 20. *Chorodera quinquelleata*, F.  
*Spec. Ins.* I., p. 56.  
Uganda (Mawakota).
- Genus: 21. *Stephanorrhina adelpha*, Kolbe.  
*Die Käfer Deut-Ost-Afrikas*, p. 182 (1897).  
Uganda, Kenya (Kakumega), Tanganyika (Bukoba).
22. *Stephanorrhina guttata*, Olivier.  
Uganda.

23. *Genyodonta flavomaculata*, F.  
*Ent. Syst. Suppl.*, p. 120.  
Kenya (Mombasa).
- Genus: 24. *Plæsiorrhina recurva*, F.  
*Syst. El.* II., p. 138.  
Uganda, Kenya (N.W.).
25. *Plæsiorrhina cinctula*, var. *ugandensis*; Heath.  
Uganda, Kenya (N.W.).
- Genus: 26. *Plæsiorrhina cinctuta*, Voet.  
Tanganyika (Bukoba), Uganda. Gedye Coll.
27. *Plæsiorrhina mhondana*, Oberth.  
*Bull. Soc. Ent. Fr.*, 1880, p. 119.  
Kenya (Rabai), Tanganyika.
28. var. *flavipennis*, Kolbe.  
*Sitz. Gesell. nat. Fr. Berlin*, 1892, s. 64.  
Tanganyika.
- Genus: 29. *Pedinorrhina subænea*, Harold.  
*Mitth. Ent. Ver. Munchen* II., s. 103 (1878).  
Uganda (Entebbe).
- Genus: 30. *Dysphilophora trivattata*, Sehaum.  
*Anal. Entom.*, p. 41.  
Kenya (Rabai), Tanganyika.
- Genus: 31. *Smaragdesthes africana*, Drury.  
*Ill. Exot. Ins.* II., p. 54.  
Kenya, Uganda, Tanganyika, generally distributed.
- Genus: 32. *Ptychodesthes gratiosa*, Ancey.  
*Le Naturaliste*, III., p. 509.  
Kenya (Teita), Tanganyika.
33. *Ptychodesthes schenklingi*, Moser.  
Kenya (Kakumega). Gedye Coll.
- Genus: 34. *Tæniesthes specularis*, Gerstaecker.  
*Arch. f. Naturgesch* 33, Jahrg. I., s. 33.  
Kenya (Makindu), Zanzibar.
- Genus: 35. *Dymusia nitidula*, F.  
*Ent. Syst.* I., p. 146.  
Uganda (Wanga).
- Genus: 36. *Gnathocera trivattata*; Swed.  
*Vet. Akad. Mya. Handl.* III., p. 190 (1787).  
Uganda, Kenya (Kakumega).
37. *Gnathocera, afzelli*, Swed.  
*Syn. Ins.* I., p. 50.  
Uganda, Kenya (Kakumega).

38. *Gnathocera legrosi*, Janson.  
Uganda, Kenya, Tanganyika, generally distributed.
39. *Gnathocera trivialis*, Gerstaecker.  
*Mitth. Natur. Ver. Greifswald*, s. 25 (1882).  
Uganda (Maragoli).
- Genus: 40. *Tmesorrhina pectoralis*, Moser.  
Uganda, Kenya, generally distributed.
- Genus: 41. *Eccoptocnemis barthi*, Harold.  
*Mitt. Muh. Ent. Ver. II.*, p. 102 (1878).  
Uganda, Kenya (Kakumega).
- Genus: 42. *Eccoptocnemis relucens*, Bates.  
*E.M.M. XVIII.*, p. 157 (1881).  
Kenya (Rabai, Nairobi).
- Genus: 43. *Hypselegenia corrosa*, Bates.  
*E.M.M. XVIII.*, p. 156 (1881).  
Tanganyika.
- Genus: 44. *Hæmatonotus hauseri*, Kraatz.  
*Deutsch. Ent. Zeit.*, s. 371 (1896).  
Kenya (Machakos).

#### TRIBE 2. GYMNETINI.

- Genus: 45. *Stethodesma strachani*, Bainb.  
*Proc. Ent. Soc. Lond.*, p. 6 (1840).  
Uganda, Kenya (Kakumega).
46. *Stethodesma servillei*, White.  
*Proc. Zool. Soc. XXIV.*, p. 15 (1856).  
Tanganyika (Moshi), Zanzibar.

#### TRIBE 3. CETONIINI.

- Genus: 47. *Pachnoda sinuata*, F.  
*Syst. Ent. App.*, p. 819.  
Kenya, generally distributed.
48. *var. flaviventris*, G. & P.  
*Mon.*, p. 182.  
Uganda, Kenya (N.W. only).
49. *Pachnoda marginata*, Drury.  
Uganda.
50. *Pachnoda petersi*, Harold.  
Kenya (Nairobi, Naivasha).
51. *Pachnoda rufa*, De Geer.  
*Mem. Ins. VII.*, p. 640.  
Kenya (Kabete).

52. *Pachnoda divisa*, Gerstaecker.  
*Jahrb. wis. Anstalten*, I., s. 47 (1884).  
 Kenya (Naivasha), Tanganyika.
53. *Pachnoda inscripta*, G. & P.  
 Kenya (Kaimosi).
54. *Pachnoda postica*, G. & P.  
*Mon.*, p. 181.  
 Uganda, Kenya (Kakumega).
55. *Pachnoda marginella*, F.  
*Syst. Ent.*, p. 46.  
 Uganda, Kenya.
56. *Pachnoda cordata*, Drury.  
*Ill. Exot. Ins.* II., p. 59 (1775).  
 Uganda, Kenya (Nairobi).
57. *Pachnoda viridana*, Blanch.  
*Cat. Coll. Ent.* p. 2 (1850).  
 Uganda, Kenya (Kericho), Tanganyika (Bukoba).
58. *Pachnoda rubrocincta*, Hope.  
*Trans. Ent. Soc. Lond.* V., p. 33 (1847).  
 Tanganyika (Bukoba). Gedye coll.
- Genus: 59. *Rhabdotis aulica*, Olivier.  
*Entom.* i., 6, p. 15.  
 Kenya, Tanganyika.
60. *Rhabdotis sobrina*, G. & P.  
 Uganda and Kenya, generally distributed.
- Genus: 61. *Elaphinis adspersula*, Gerstaecker.  
*Jahrb. wis. Anstalten Hamb.* I., s. 461 (1884).  
 Kenya and Tanganyika, generally distributed.
- Genus: 62. *Phonotænia balteata*, De Geer.  
*Mem. Ins.* VII., p. 642.  
 Uganda and Kenya, generally distributed.
63. *Phonotænia sanguinoleata*, Oliv.  
*Ent.* 1, 6, p. 49.  
 Uganda (Jinja).
64. *Phonotænia scalaris*, G. & P.  
*Mon.* p. 249.  
 Uganda.
- Genus: 65. *Tephraea sternalis*, Moser.  
 Uganda, Kenya (Kakumega, Kaimosi).
- Genus: 66. *Polystalactica punctulata*, Olivier.  
 Kenya (Rabai, Kisumu), generally distributed.

- Genus:** 67. *Homothyrea helenæ*, Schaum.  
*Trans. Ent. Soc. Lond.* V., p. 71 (1848).  
 Kenya (Kibwezi).
- Genus:** 68. *Stichothyrea picticollis*, Kraatz.  
*Deutsch. Ent. Zeit.*, s. 74 (1882).  
 Uganda, Kenya (Kericho).
69. *Stichothyrea densata*, Kolbe.  
 Kenya (Kakumega), Uganda (Kigezi).
- Genus:** 70. *Mausoleopsis amabilis*, Schaum.  
*Ann. Soc. Ent. France.*, p. 408 (1844).  
 Kenya (Rabai, Nairobi, etc.).
- Genus:** 71. *Leucocelis plebejus*, Kolbe.  
*Stett. Ent. Zeit.*, p. 290 (1895).  
 Uganda, Kenya (Kakumega).
72. *Leucocelis elegans*, Kolbe.  
*Stett. Ent. Zeit.*, s. 291 (1895).  
 Kenya, generally distributed.
73. *Leucocelis haemorrhoidalis*, F.  
*Syst. Ent. App.*, p. 819.  
 Uganda and Kenya, generally distributed.

#### TRIBE 4. DIPLOGNATHINI.

- Genus:** 74. *Diplognatha silicea*, McLeay.  
*Ill. Zool. Afr.* II., p. 22.  
 Kenya, Uganda, Tanganyika, and Zanzibar, generally distributed.
75. *Diplognatha montana*, Kolbe.  
*Sitz. Ges. naturf. Fr. Berlin*, 68 (1892).  
 Kenya, Uganda, Tanganyika, generally distributed.
76. *Diplognatha viridicalcea*, Kolbe.  
*Die Käfer Deut-Ost-Afr.*, p. 192 (1897).  
 Uganda, Tanganyika (Bukoba).
77. *Diplognatha gagates*, F.  
*Syst. Ent.*, p. 49.  
 Uganda, Tanganyika.
78. *Diplognatha striata*, Janson.  
*Cist. Ent.* II., p. 263.  
 Kenya (Rabai), Tanganyika, Zanzibar.
- Genus:** 79. *Conradtia principalis*, Kolbe.  
*Sitz. Gesell. naturf. Fre. Berlin*, s. 69 (1892).  
 Tanganyika.

- Genus: 80. *Charadronota acutangula*, Arrow.  
*Ann. Mag. Nat. Hist.*, p. 529, IX. (1922).  
Kenya (Maragoli), Uganda.
81. *Charadronota quadrisignata*, G. & P.  
Uganda (Entebbe).
- Genus: 82. *Poecilophila maculatissima*, Boh.  
*Oefers. Vet. Ak. Handl.*, s. 120 (1860).  
Kenya (Rabai), Tanganyika, Zanzibar.
83. *Poecilophila tessellata*, Moser.  
Kenya (Machakos).
- Genus: 84. *Porphyronota cinnamomea*, Afzel.  
*Schonherr's Synom. Ins.* I., 3, App., p. 48.  
Uganda.
- Genus: 85. *Eriulis variolosa*, G. & P.  
Uganda (Namasagali). Gedye Coll.
- Genus: 86. *Niphetophora carneola*, Burmeister.  
*Hand. d. Entom.* V., p. 559 (1847).  
Uganda, Kenya (Kaimosi).
- Genus: 87. *Pseudoprotætia pilicollis*, Kraatz.  
Kenya (Makindu).
- Genus: 88. *Pseudinca robusta*, Janson.  
Uganda, Kenya.
89. *Pseudinca vitticollis*, Bourg.  
Uganda.
90. *Pseudinca fischeri*, Kolbe.  
*Stett. Ent. Zeit.* s. 281 (1895).  
Uganda (Entebbe).
91. *Pseudinca admixta*, Hope.  
Uganda (Entebbe).

## Section 2. CREMASTOCHILINA.

- Genus: 92. *Cymophorus rubronotatus*, Pering.  
*Trans. S. Afr. Phil. Soc.* III., p. 99 (1885).  
Kenya (Wanga, Kaimosi).
- Genus: 93. *Cymophorus undatus*, Kirby.  
*Zool. Jrn.* III., p. 271.  
Kenya, Uganda, Tanganyika, and Zanzibar, generally distributed.
- Genus: 94. *Coenochilus glabratus*, Boh.  
*Ins. Caffr.* II., p. 50 (1857).  
Kenya (Nairobi, Wanga).

Genus: 95. *Plagiochilus angustatus*, Westwood.  
Uganda, Kenya (Kavirondo).

96. *Macroma cognata*, Schäum.  
*Germ. Zelt.* iii., 1841, p. 278.  
Uganda (Jinja, Entebbe).

#### SUB-FAMILY TRICHIINÆ.

##### TRIBE 1. OSMODERMINI.

Genus: 1. *Incala calabarina*, Westwood.  
Kenya (Maragoli).  
2. *Incala lincola*, Westw.  
*Arcana Ent.* I., p. 187.  
Uganda.

##### TRIBE 2. TRICHIINI.

Genus: 3. *Polyplastus ovatus*, Waterhouse.  
Kenya (Rabai, Nairobi).  
4. *Polyplastus bicolor*, Kolbe.  
Uganda (Kampala).  
5. *Trichius sobrinus*, Arr.  
*Am. Mag. Nat. Hist.*, Vol. 9, p. 529, 1922.  
Uganda (Mabira).

#### SUB-FAMILY VALGINÆ.

Genus: 1. *Comythovalgus fasciculatus*, Gyll.  
*Sch. Syn. Ins.* I., 3, p. 48  
Kenya (Nairobi).

2. *Comythovalgus sansibaricus*, Kolbe.  
*Entom. Nachr.*, s. 10 (1896).  
Kenya (Rabai), Zanzibar.

Genus: 3. *Ischnovalgus albosquamatus*, Fairm.  
*Ann. Soc. Ent. France*, p. 188 (1887).  
Kenya (Nairobi), Tanganyika.