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Fruitflies collected by Dr. Erwin Lindner in East and South Africa (Trypetidae, Diptera)

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With 3 Figures



Since the last comprehensive review of the African Trypetidae by BEZZI in 1924, many new species have been described and groups revised, but much remains to be done. Many species are still in the genera in which they were placed by BEZZI and their correct position needs further consideration. Genera such as *Ensina* and *Trupanea* have been more or less broken up, some species retained in a restricted sense, others for which new genera have been erected, leaving a few species the generic position of which requires more study. It is thus at times necessary to refer to a species under a genus to which it may not now belong. Further, it is not satisfactory to describe an apparently "new" species under an alien genus, such a species all too often represented by a single specimen; it is better to await a revision of the group to which it may belong and preferably the discovery of more specimens.

In the small collection of Trypetidae from East and South Africa kindly sent by Prof. Dr. E. LINDNER, there are some that must be retained in a possibly incorrect genus and even specimens that cannot yet be correctly identified. Most of the specimens were taken in "T. T. — Tanganyika Territory" now "Tanzania" and this is not repeated throughout the paper; localities in other areas are given in detail.

References to literature are given when needed, or only the latest general reference is noted.

Dacus (Dacus) bivittatus Bigot

Four males and two females, Makoa, 15. II. 1959 and 3., 5. and 8. IV. 1959.

This is the large cucurbit fly, a common pest throughout Africa.

Dacus (Didacus) vertebratus Bezzi

Two males, Makoa, 14. II. 1959.

This is also one of the serious pests of cucurbits in Africa. The species is very variable and single specimens are sometimes not easy to identify.

Dacus (Psilodacus) mochii Bezzi

One male and four females, Makoa, 6.–25. II. 1959.

These agree with specimens from the Congo; the male specimen is small and teneral.

Pterandrus rosa (Karsch)

Nine females, Makoa, 13. I.–20. II. 1959. Most of them taken at light (Lichtfang). This, the Natal fruitfly, is a major pest of deciduous fruits in South and East Africa.

Ocnerioxa undata (Bezzi)

Ocneros undatus Bezzi, 1920, Bull. ent. Res., 10: 248.

Ocnerioxa undata (Bezzi) 1923, Ann. Mus. Nat. Paris, 29: 519; 1924, Bull. ent. Res., 15: 113.

Two males and four females, Marangu, 1.–20. III. 1959, one female, Makoa, 17. I. 1959, and one female from Okameni-Tsavo, 25.–28. II. 1959.

These specimens have been identified as *O. undata* since they agree with the description given by BEZZI. There are, however, certain problems concerning the species placed in the genera *Ocnerioxa* and *Afrocneros* that require a revision of the group.

Ocnerioxa lindneri n. sp. (Figs. 1 A and 1 B)

This new species comes within the meaning of the genus *Ocnerioxa* given by BEZZI in 1924. It differs from all the other species in the absence of a dark, blackish bar or stripe along the top of the mesopleura, the so-called notopleural stripe, and from all except *woodi* BEZZI in the absence of the presutural bristle. It differs further from *woodi* in the absence of a dark bar across the epistome. The two specimens described here are so alike, apart from a slight difference in wing-pattern, that they must represent the same species.



Fig. 1. *Ocneria lindneri* n. sp., wing, A ♂, B ♀.

Holotype ♂, Chyulu Hills, Kenya, April 1938, alt. 5200 ft. Coryndon Museum; Allotype ♀, Makoa, Tanganyika Territory, East Africa, 17. I. 1959, LINDNER leg.

♂: Length 4.4 mm, wing 4.5 mm; ♀: length 5.5 mm, wing 5.0 mm.

Head: Yellow, brown above neck, length : height : width, 6 : 8 : 10; eye rounded, length about 0.8 height; frons, width 0.8 length, 0.4 width of head, moderate brown pubescence on anterior half, ocellar dot black, ocellar bristle very minute or practically absent; bristles: postorbitals a single row of short, dark bristles, postverticals, inner and outer verticals present; two lower orbitals, the anterior about half the length of the hind one, two upper orbitals, the hind one small and pale; lunule yellow, short lunate; antennae 0.8 face, segment 3 yellow, oval, arista very slightly pubescent; face concave, parafacials narrow, epistome projecting about half width of antennal segment 3; genae moderately wide, 0.2 height of eye, bristle yellow; postgenae swollen.

Thorax: Dorsum brown to notopleural suture with obscure not strongly marked blackish stripes: narrowly above humerus widening to suture, barely apparent in female but depending on direction of light, behind suture a moderately wide stripe just outside dorsocentral line and an oval, submedian spot behind and weakly continued before suture; humerus in ♂ brown, in ♀ yellow; dust slight, brownish, but grey on darker areas, pubescence short, fine, brown-shining; pleura yellow, thinly clothed with fine hairs, no dark stripe along top of mesopleura; postscutellar area shining ferruginous; bristles: scapulars weak; dorsocentrals near scutellum, 3 supra-alar, 2 notopleural, but no presutural, 1 mesopleural and 1 sternopleural, no pteropleural. Legs yellow. Scutellum yellow, triangular, flat above, sides flattened, in ♀ slightly convex above; 4 bristles, long, apicals 0.8 basals. Wing: pattern by transmitted light Fig. 1 A ♂, B ♀, in oblique light almost entirely brown except costal spots and a pale oval area along vein 5 in posterior cell 3 and slightly over outer end of vein 4, these shining whitish; stigma as long as outer costal cell; vein 3 fairly setose above to mid posterior cell 2 and below to upper cross-vein.

Abdomen: ♂, somewhat translucent, shining mottled blackish-ferruginous, tergite 3 wide, about as wide as length of abdomen, but apical tergites narrowed, tergite 5 yellow on middle for half length, tergite 9 yellow, cerci very long, 0.4 mm. ♀, shining,

fine dark pubescence, tergites 1 + 2 yellow, 3 mainly yellow on anterior half with brown spots on middle and sides, on hind half slightly yellowish with small hyaline spots, 4 brown, 5 brown, on middle of posterior half yellow with small hyaline spots, 6 short, yellow, with numerous, small hyaline spots; ovicape brown, black at tip, length 1.0 mm, fine pale pubescence; intermediate membrane yellow, aculeus, apex exposed, yellow, tip rounded.

Terpnodesma taeniptera (Bezzi)

Terellia taeniptera Bezzi, 1924, Ann. S. Afr. Mus., 19: 506, Pl. XIII, Fig. 52.

Terpnodesma taeniptera (Bezzi) Munro, 1956, Ann. Mus. Congo Tervuren, Zool., 51: 469, Figs. 2—3.

Two males and two females, Makoa, 10. IV. 1959. These are stated to have been taken at light (Lichtfang), an interesting occurrence as trypetids do not seem to be attracted to light as a rule probably as they do not normally fly at night.

This is a curious species, apparently quite wide-spread but never numerous. Described as a *Terellia*, it showed such remarkable characters, especially in the aedeagus, that a new genus was erected for it.

Metasphenisca bezziana (Enderlein)

Trypeta bezziana Enderlein, 1911, Zool. Jahrb., 31: 424, Fig. F.

Metasphenisca bezziana (Enderlein) Munro, 1947, Mem. Ent. Soc. S. Afr., 1: 130, Figs. 23, 165, 249.

Aciura latincisa Bezzi, 1924, Bull. ent. Res., 15: 122. Munro, 1935, Ann. Mus. Nat. Hung., 29: 140, Fig. 8. (It may be noted that in the latter reference the name „tetrapoda“ should read „tetrachaeta“.)

One male, 3. X. 1958, „An Bord nach Verlassen von Las Palmas“ in the Canary Islands. This is a remarkable record. The species was described from Eritrea and as far as may be judged, this specimen is ENDERLEIN's species. Two other specimens from Kenya also agree but this is a case where more material is needed. The generic differences, such as there may be, between *Isoconia* Munro and *Metasphenisca* Bezzi need further study.

Paraspheniscoides binaria (Loew)

Trypeta binaria Loew, 1861, Berl. Ent. Zeit., 5: 274, ♀, Pl. II, Fig. 11.

Notoxesis binaria (Loew) Munro, 1947, Mem. Ent. Soc. S. Afr., 1: 144, Figs.

Paraspheniscoides binaria (Loew) Hering, 1941, Ann. Nat.-hist. Mus., Wien, 51: 197 — as type species of *Paraspheniscoides*.

The species has also been placed in *Aciura* and in *Spheniscomyia*.

Two females, Makoa, 10. I. 1959 (Lichtfang). A wide-spread species and one of those that infest the inflorescence of *Lippia*.

Dicheniotes distigma (Bezzi)

Tephrella distigma Bezzi, 1924, Ann. S. Afr. Mus., 19: 519, Pl. XIV, Fig. 68.

Dicheniotes distigma (Bezzi) Munro, 1947, Mem. Ent. Soc. S. Afr., 1: 182, Figs.

One male, Makoa, 2. II. 1959.

Afraciura quaternaria (Bezzi)

Spheniscomyia quaternaria Bezzi, 1924, Ann. S. Afr. Mus., 19: 516, Pl. XIV, Fig. 67.

Conionota quaternaria (Bezzi) Munro, 1947, Mem. Ent. Soc. S. Afr., 1: 148, Figs.

Afraciura quaternaria (Bezzi) Hering, 1941, Ann. Nat.-hist. Mus., Wien, 51: 198.

One female, Makoa, 3. IV. 1959. Another of the species of which the larvae live in the inflorescence of *Lippia* (Verbenaceae).

It may be noted that when the genus *Conionota* (MUNRO op. cit.: 147) was published, the description of *Afraciura* (HERING op. cit.: 197) was not available due to war conditions. BEZZI's species is reasonably congeneric with *Afraciura zernyi* Hering.

Mesoclanis dubia (Walker)

MUNRO, 1950, J. Ent. Soc. S. Afr., 13: 41.

One female Kapstadt (Capetown, South Africa). This is one of the species that live in the flowers and seeds of *Chrysanthemoides monilifera* (Compositae).

Lethyna aequabilis Munro

MUNRO, 1957, Brit. Mus. Ruwenzori Exp., 1934—1935, 2: 947, Figs.

One male, Kilimandjaro S. W., O. Africa, 3500 m, 1.—4. II. 1959.

Paroxyna ignobilis (Loew)

MUNRO, 1957, op. cit., 2: 977, Figs.

One female, Kapstadt, 1958.

A common species, wide-spread from South to East Africa and Eritrea infesting the flowers of *Sonchus* (Compositae).*Paroxyna siphonina* (Bezzi)

MUNRO, 1957, op. cit., 2: 960, Figs.

One female, Makoa, 10.—20. II. 1959.

Scedella praetexta (Loew)

MUNRO, 1957, op. cit., 2: 996.

One female, Mbugve, 29.—30. III. 1959.

Scedella dissoluta (Loew)

MUNRO, 1957, op. cit., 2: 998.

One male and one female, Makoa, 3.—9. IV. 1959. These specimens are not quite typical.

Scedella glebosa Munro

MUNRO, 1957, op. cit., 2: 990, Figs.

One male and one female, Makoa, 3. and 5. IV. 1959.

Acanthiophilus muii Bezzi

BEZZI, 1924, Bull. ent. Res., 15: 139.

One female, Durban, South Africa, 7. XII. 1958. A common species along the eastern coast of South Africa, forming terminal twig galls on *Brachylaena* (Compositae). This species and *A. hemimelas* Bezzi are to some extent very like species of *Acanthiophilus*, but certain characters indicate possible generic differences that will be studied in a later revision of the group.„*Trupanea*“ *woodi* Bezzi

BEZZI, 1924, Bull. ent. Res., 15: 146.

Seven males and ten females, Makoa, 6.—25. II. and IV. 1959 on *Vernonia* spec. only.„*Trupanea*“ *aurea* Bezzi

BEZZI, 1924, Bull. ent. Res., 15: 144.

Two males, Makoa, 6.—25. II. 1959 and 4. IV. 1959.

Note: In a recent paper (MUNRO, 1964, The Genus *Trupanea* in Africa, Dept. Agric. Tech. Services, Rep. S. Afr., Ent. Memoirs, Vol. 8) the concept of the genus *Trupanea* has been restricted in particular to species having not less than three lower orbital bristles, two scutellars and a typical aedeagus. Apart from these, of the species included by BEZZI in *Trupanea* (*Trypanea*) in 1924, some have already been placed in other genera leaving certain others with four scutellar bristles still to be considered; among these are „*T*“ *woodi* and „*T*“ *aurea*. However, considerable comparative work will need to be done to attain a solution.„*Trupanea*“ sp.

Three males, Makoa, 6.—25. II. 1959 and two females, 4. IV. 1959. These specimens have also four scutellars and appear similar to others awaiting study.

„*Rhabdochaeta*“ *nigra* Bezzi

MUNRO, 1935, Ann. Mus. Nat. Hung., 29: 159.

One male, Makoa, 11. II. 1959.

„*Rhabdochaeta*“ sp. (Fig. 2 below)

Five males and three females, Makoa, 3. IV. 1959. On *Vernonia* spec. only.

Note: None of the species placed in the genus *Rhabdochaeta* de Meijere (1904, Bijdr. Dierk., 17: 108, Fig. 23) belong there because the genus and its type species have been quite incorrectly interpreted. A revision of the whole subfamily is to be undertaken to re-assess the position.

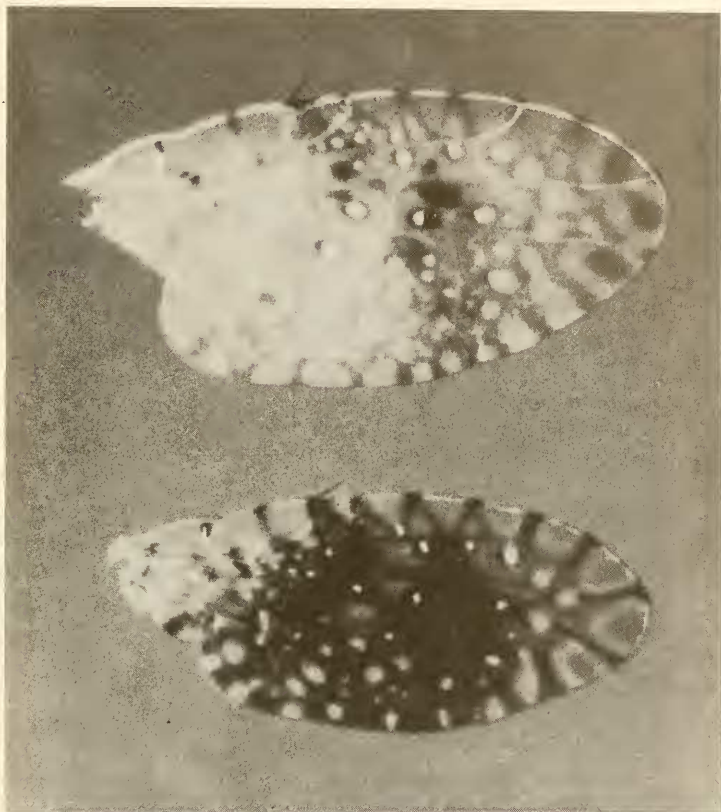


Fig. 2. Wing of *Cladotricha* spec. (above) and of *Rhabdochaeta* spec. (below). Photo GEORG KUBE.

Cladotricha sp. (Fig. 2 above)

Two males and three females, Makoa, II.-4. IV. 1959 on *Vernonia* spec. only. A small, whitish species; it is not *Cladotricha fordiana* (Munro) but seems to belong to the same genus. Many specimens await study and can only be included in the subfamily revision.

Urophora pantomelas Bezzi

Bezzi, 1926, Bol. Lab. Zool. gen. e agr. Portici, 18: 288.

Three females Makoa, 4. IV. 1959 and 6.-25. IV. 1959.

A small, black species commonly breeding in the flower-heads of *Helichrysum* (Compositae). This and a series of species generally referred to *Urophora* are awaiting revision.

Anschrift des Verfassers:

Dr. H. K. Munro, Private Bag 134, Pretoria, South Africa

Ergänzende Bemerkungen des Sammlers

Als Sammler des vorstehend durch Dr. H. K. MUNRO bearbeiteten Materials von afrikanischen Trypetiden erlaube ich mir, mit Zustimmung Dr. MUNROS, folgende Ergänzung dieser Arbeit.

Es waren drei ökologische Gegebenheiten, die in besonderer Weise das Vorkommen einiger Trypetiden-Arten begünstigten und ihre Beobachtung und Erbeutung ermöglichten.



Fig. 3. *Vernonia* spec. — Biotop of *Trupanea woodi* Bezzi, *Trupanea aurea* Bezzi, *Scedella dissoluta* (Loew), *Scedella glebosa* Munro, *Stylyia sororcula* Wied., *Rhabdochaeta nigra* Bezzi, *Rhabdochaeta* spec., *Cladotricha* spec., *Urophora pantomelas* Bezzi. (Photo ELMAR LINDNER.)

Dr. MUNRO erwähnt, daß nur wenige Arten am Licht gefangen würden. Das mag wohl daran liegen, daß die meisten Sammler (in der Regel sind es Schmetterlingssammler) auf diese kleinen Insekten nicht achten. Ich erbeutete am Licht *Pterandrus rosa* (Karsch), *Terpnodesma taeniptera* Bezzi, *Paraspheniscoides binaria* (Loew) und *Dicheniotes distigma* Bezzi. Erstere beide wurden nur bei dieser Gelegenheit in Anzahl beobachtet; die beiden anderen Arten waren Einzelfunde.

Die Exkrete von Blattläusen, Schildläusen und Mottenschildläusen (Aleurodinen) besitzen immer größte Anziehungskraft für viele Dipteren. Trypetiden sind dabei im allgemeinen nicht häufig, aber an einer von den Entwicklungsstadien eines *Aleuro-*

canthus spec. befallenen Gartenrose war in Marangu die schöne *Ocnerioxa undata* Bezzi nicht selten. Dazu kamen noch vor: *Coniopnota reculta* Munro, *Tephraclia sphenoptera* Bezzi und *Bezziella margaritifera* (Bezzi). Alle Trypetiden der Ausbeute von Marangu stammen von diesem Rosenstrauch. Auf der Pflanzung Makoa am Kibo beobachtete ich auch die Mittelmeerfruchtfliege *Ceratitis capitata* (Wied.) bei Schildläusen des Kaffeestrauches.

Die reichste Ausbeute an Bohrfliegen ergab der durch Wochen hindurch fast tägliche Besuch eines ansehnlichen Bestandes einer *Vernonia* spec. (Fig. 3) auf Makoa, einer Pflanze, die Ansammlungen ähnlich denen unserer Brennessel bildet und die wenig auffallende, leicht violette Blütchen trägt. Die Farbe fällt um so weniger auf, als die verwelkten Blüten dem Blütenstand im ganzen ein unansehnliches Bild geben, demgegenüber die wenigen frischen Blüten, die täglich hinzukommen, nicht sehr in Erscheinung treten. Dazu kam, daß die Blütenstände während der ersten Blütezeit der Pflanze von Blattläusen befallen waren. Ich hatte aber nicht den Eindruck, daß die Blattläuse eine besondere Anziehung auf die Trypetiden bewirkten, denn letztere erschienen in der Hauptsache, als der Blattlausbefall ziemlich abgeklungen war. Es traten auf: *Trupanea woodi* Bezzi, *Trupanea aurea* Bezzi, *Scedella dissoluta* (Loew), *Scedella globosa* Munro, *Stylia sororcula* Wied., *Rhabdochaeta nigra* Bezzi, *Rhabdochaeta ? neavei* Bezzi (HERING det.), *Cladotricha* spec. und *Urophora pantomelas* Bezzi. Die schönen Arten *Trupanea woodi* Bezzi und *Rhabdochaeta ? neavei* Bezzi, auch *Cladotricha* spec., waren so häufig, daß anzunehmen ist, sie machen ihre Entwicklung in den Infloreszenzen der Pflanze durch.

Die Liste Dr. MUNROS ergänzend, füge ich noch an:

Ceratitis capitata (Wied.), die „Mittelmeerfruchtfliege“.

Von ihr fing ich 1 ♀ in Durban 7. XII. 1958 und 1 ♂ auf Makoa am 10. II. 1959, letzteres bei Kaffeeshildläusen. Diese Art ist in der Alten Welt wie in der Neuen Welt verbreitet, auch in Afrika und auf Madagaskar.

Pliomelaena brevifrons Bezzi (LINDNER det.)

1 ♂ von Makoa 6.–25. II. 1959.

Bezziella margaritifera Bezzi (HERING det.)

1 ♀ von Marangu 1.–20. III. 1959.

Stylia sororcula Wied. (HERING det.)

1 ♀ von Marangu 1.–20. III. 1959, 1 ♂ von Makoa 6.–25. II. 1959.

E. Lindner