

A new *Typhloscaris* Kuntzen, 1914, from Kenya (Coleoptera: Carabidae, Scaritini)

by

JAAP van ETTEN

Laboratorium voor Zoölogische Oecologie en Taxonomie, Utrecht

ABSTRACT. — A new species of *Typhloscaris* Kuntzen, *T. meruensis*, is described from Kenya. The species is closely related to *T. hutchinsi* and *T. marakwetensis*. Its distribution seems to be restricted to the lower slopes of the Mount Kenya.

The genus *Typhloscaris* Kuntzen contains some 25 species, which are found on the mountains and mountain ridges of East Africa. Three species are restricted to Madagascar (Basilewsky, 1973a). Most species were originally placed in the genus *Scarites* Fabricius, subgenus *Oroscaris* Bänninger, 1939. Basilewsky (1973a, b), however, considered subgenus *Oroscaris* to be synonymous with the genus *Typhloscaris*.

During initial studies of the genus I obtained some large specimens, collected by a group of local insect collectors, calling themselves "Meru Entomological Unit", which were rather similar to *T. hutchinsi* Alluaud. Bänninger (1935, 1939) mentioned a large form of *T. hutchinsi* (see also Burgeon, 1935). This form was up to 23 mm long (typical *T. hutchinsi* is 13-19 mm), had enlarged genae and, especially at the left side, enlarged paragenae, with a tooth which pointed inwardly over the side of the mentum. One of the large specimens I obtained had these characteristics, but 8 specimens differed from this description and are considered to be a new species.

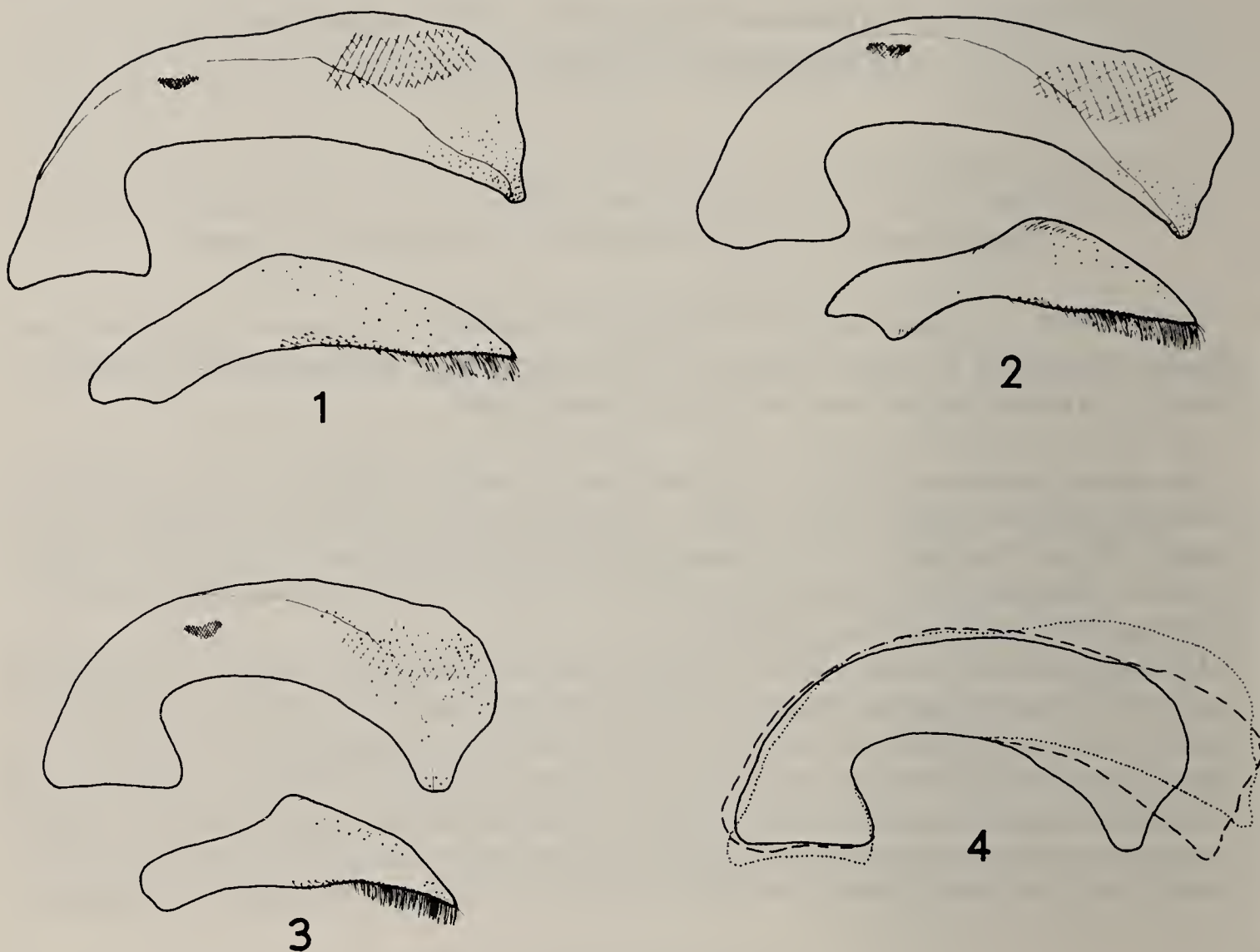
Typhloscaris meruensis n. sp.

Length. — ♂ 21-22 mm, ♀ 17-20 mm. Brachypterous. Black, shining. Antennae and tarsi ferruginous. The whole underside with punctures and wrinkles.

Head. — Fairly large, 1.36 (1.22-1.46) times wider than long. Frontal grooves deep and sharp, short, not reaching further than the eyes; posteriorly converging. Frons smooth, with a few undep striations, which are sometimes hardly visible. Eyes small, less than 30-40% of the height of the mandibles, which means that they are reduced (Hvalac, 1969); slit-like. The ocular protuberance is strongly projecting and more or less rounded, about equal in size for males and females. Labrum more or less flat; tridentate, the medium tooth large with an apex, which is more rounded in the ♀ than in the ♂. Mandibles large. Mentum with large lobes, edges not marginated, with microsculpture, but hardly any striations; medium tooth sharp, $\pm 60-70^\circ$, strongly marginated. Clypeus without setiferous pores. Paragenae with a tooth which reaches the edge of the mentum; a protuberance at the apical side, which in the ♂ is enlarged to a wing-like shape, which projects inwardly. Antennae short, segments 2 and 3 about equally long, segments 4 to 11 flattened, segments 4 to 10 are 1.00-1.30 times longer than wide.

Thorax. — The thorax is 1.69 (1.52-1.83) times wider than long. Anterior side slightly concave. The thorax is widest at about 1/5 of its length; from there slightly narrowed towards its base, with a straight margin; a small but distinct denticle in the hind angles; anterior part not marginated, although a slight indication of a margin is visible in the middle; sides and posterior part marginated. Longitudinal median groove clearly visible over the whole length, although it is not very deep; transversal groove visible over the whole length, but less deep than the longitudinal groove. Surface smooth.

Elytra. — The elytra are 1.55 (1.48-1.64) times longer than wide, ovoid, slightly flattened. At the base a well developed ridge. This ridge is posteriorly marginated by a groove, which is an extension of the first stria. This ridge is granulated and covered with tubercles and with setiferous pores. The margin is wide and becomes gradually wider towards the apex. Because of this margin the elytra seems to have a pointed apex, which gives them a heartshaped impres-



Figs. 1-4: Aedeagi of three species of the genus *Typhloscaris*. 1. *T. meruensis* n. spec. (holotype), 2. *T. hutchinsi* Alluaud (Kikuyu Escarpment Forest, Kenya), 3. *T. marakwetensis* Bänninger (Mau Escarpment, Kenya), 4. The aedeagi of the three species placed on top of each other.

sion. The margin is strongly granulated till the 8th stria. Shoulders distinct, slightly curved, with a small dent. Striae without punctation, rather deep, disappearing towards the apex. In the third interval 2 setiferous pores in the apical 1/3.

Legs. — Tarsi ferruginous, tibiae and femuri piceous to black. Spines at the external side of the protibia sharp, 2 large, 1 small, 1 very small (hardly visible). The mesofemur has some short hairs on the dorsal side. Mesotibia a bit flattened with rows of short hairs; at the upper side with short spines, which increases in size towards the distal end; with one large distal spine. The metatibia with rows of hairs, restricted to the distal 2/3.

Aedeagus as in fig. 1.

Measurements (in mm). — Head: length 2.9-4.2, width 3.7-5.6; mandibles: length ♂ 4.3-4.6, length ♀ 2.5-3.4; thorax: length 3.2-3.7, width 4.9-6.7; elytra: length 8.1-9.3, width 4.9-6.2. The extremes of 8 specimens have been given; for the mandibles: 3 ♂♂ and 5 ♀♀.

Distribution. — Kenya, Meru Town and the forests on the eastern slopes of the Mount Kenya, altitude 1500-2200 m.

Material examined. — 1 ♂ (holotype), type locality: Meru Town, Oct.-Nov. 1976, leg. R. A. Owala (coll. Institute of Taxonomic Zoology, Zoölogisch Museum, Amsterdam (ZMA)); 2 ♂♂ and 4 ♀♀ (paratypes), Kinoru Forest, Meru, Feb. 1979, leg. Meru Ent. Unit (1 ♂ and 2 ♀♀ coll. J. van Etten, Utrecht; 1 ♂ and 1 ♀ coll. Musée de l'Afrique Centrale, Tervuren, Belgium; 1 ♀ coll. ZMA); 1 ♀ (paratype), Imeti Forest, Meru, Feb. 1979, leg. Meru Ent. Unit (coll. ZMA).

Diagnosis

T. meruensis n. sp. is closely related to *T. hutchinsi* Alluaud and *T. marakwetensis* Bänninger, which was originally described as a subspecies of *T. hutchinsi*. Basilewsky (1954) elevated the taxon to the species level. The three species have a clearly different aedeagus (figs. 1, 2 and 3). The aedeagus of *T. hutchinsi* is curved, the aedeagus of *T. meruensis* is nearly straight, while the aedeagus of *T. marakwetensis* is intermediate between these two (see fig. 4).

The three species can be separated with the following key:

1. Elytra with rather deep striae and convex intervals. Base of the elytra with a ridge, which is strongly granulated and covered with tubercles. Genae of the ♂ with a conical enlargement (conical protuberance). Labrum tridentate 2
- Elytra with fine striae and more or less completely flattened intervals. No ridge at the base of the elytra, which descends rounded. Labrum with a medium tooth only. Aedeagus slightly curved (fig. 2). Length 13-21 mm *marakwetensis*
2. Ridge at the base of the elytra strongly developed, margined posteriorly by a groove, which is an extension of the first stria. Paragenae of the ♂ at the apical side with a protuberance, which is enlarged to a winglike shape, which projects medianly. The pronotum is wider than in the next species, 1.69 (1.58-1.83) times wider than long. Medium tooth of the mentum sharp ($\pm 60-70^\circ$). Spines of the protibia sharp. Elytra flattened, giving a heartshaped impression. Aedeagus nearly straight (fig 1). Length 17-22 mm..... *meruensis* n. sp.
- Ridge at the base of the elytra less strongly developed. First stria is not clearly extended to margin the ridge posteriorly. Paragenae of the ♂ without an enlarged winglike protuberance, although a large form has a small protuberance, which is not winglike enlarged. Pronotum less wide than in the previous species, 1.58 (1.38-1.69) times wider than long. Medium tooth of the mentum blunt, $\pm 120^\circ$. Elytra convex. Spines of the protibia more blunt with a round apex. Aedeagus curved (fig. 3). Length 13-19 mm..... *hutchinsi*

Note. The large form of *hutchinsi*, which has a length up to 23 mm, enlarged genae and, especially at the left side enlarged paragenae with a dent which points inwardly over the mentum, has already been mentioned. This form has also a small protuberance (tubercule) at the apical side of the paragenae. I saw one specimen of 22 mm length (♂) from Meru, Imeti forest, Feb. 1979, leg. Meru Ent. Unit.

For separation of these three species from other species of *Typhloscaris* I refer to the key of Bänninger (1939, pp. 129-136 and 145-146) and for the three species from Madagascar to Basilewsky (1973a, pp. 43-49).

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