Zeitschrift der Arbeitsgemeinschaft Österreichischer Entomologen, 45. Jg., 1/2, 30.6.1993

Microlara gen.n. mahensis sp.n., from the Seychelles (Coleoptera: Elmidae, Larainae)

by MANFRED A. JÄCH

Abstract

Microlara gen.n. mahensis sp.n., the first riffle beetle (Elmidae, Larainae) recorded from the Seychelles is described.

Despite several hydrobiological surveys, carried out in the Seychelles, by the Percy Sladen Trust Expedition 1905 and 1908/9, by F. Starmühlner (University of Vienna) in 1974 and M. Madl (Natural History Museum, Vienna) in 1991, no riffle beetles (Elmidae) were recorded from these islands until today. In December 1992, H. Malicky operated a light trap on Mahé Island to attract aquatic insects. Quite surprisingly, the material he collected contained also 3 elmids. These specimens represent a new genus and species of the subfamily Larainae.

My sincere thanks are due to H. Malicky, for donating the type material. All specimens are deposited in the Natural History Museum, Vienna. I am very much obliged to J.M. Campbell (Ottawa) for his comments on the manuscript.

Microlara gen.n.

(Figs 1 - 5)

Length (pronotum + elytra): 2.3 - 2.7 mm.

Body elongate, subparallel.

Integument clothed with rather short hydrofuge pubescence.

Antennae 11-segmented. Clypeus transversely rectangular, frontoclypeal suture deep, extending between bases of antennae; anterior angles rounded.

Pronotum distinctly broader than long (1 : 1.37 - 1.45); widest at basal third, then narrowing anteriorly; front margin arcuate; front angles broadly rounded; basal margin trisinuate; hind angles excised; a distinct posterolateral impression extending from posterior angles to basal third; lateral margin narrowly rimmed. Hypomeron oblique. Scutellum flat, ovate. Elytra with 6 punctate striae between suture and shoulder; a few scutellary punctures, forming an accessory stria, may be developed; elytral striae only very shallowly impressed; elytral punctures small, but distinctly impressed; elytral margin moderately wide; elytral apices obtusely rectangular in both sexes. Hind wing¹ (Fig. 5): without anal cell; without radial cross vein; r-m cross vein only very short; prosternal process long and slender, more or less evenly tapering from base to apex. Mesosternum with a deep depression on midline for the reception of the prosternal process. Metasternum with a shallow longitudinal groove on midline. Epipleura oblique. Legs densely pubescent, only mesotibia smooth. Abdomen with 5 visible sterna.

¹ The nomenclature of the hind wing venation, as currently used by riffle beetle specialists, e.g. BROWN (1981), SPANGLER & SANTIAGO-FRAGOSO (1992) and others, is not in overall concordance with the terminology proposed by WALLACE & FOX (1980). These differences are most evident in the numbering of the anal veins and the interpretation of the postcubitus. To ensure stability among riffle beetle specialists I have adopted the terminology used by BROWN (1981) and SPANGLER & SANTIAGO-FRAGOSO (1992).



Fig. 1: Microlara gen.n. mahensis sp.n., habitus, holotype [Foto: H. Schillhammer]

Genitalia (Figs 2 - 4): Aedeagus conspicuously long and slender, phallobasis and penis about equally long. Female genitalia moderately long.

No obvious external sexual dimorphism observed. The female is slightly larger than the two males.

Larva unknown.

Differential diagnosis: A very distinctive genus. It can be distinguished from the five Ethiopian genera (Hydrethus FAIRMAIRE, Omotonus DELEVE, Potamocares GROUVELLE, Potamodytes GROUVELLE, Potamolatres DELEVE) by the smaller size, by the reduced hind wing venation (absence of anal cell) and by the morphology of the male and female genitalia. In fact, reduction of the anal cell in the hind wing is hitherto known only from Neotropical genera (Hexanchorus SHARP, three Phanocerus Sharp, Pharceonus Spangler & Santiago-FRAGOSO). The members of these genera comprise rather small species, but they all differ greatly from Microlara gen.n. in the general habitus and the morphology of the male and female genitalia. It seems that Microlara gen.n. is not very closely related with any other Larainae genus described so far. Since our knowledge of the Ethiopian realm (incl. Madagascar) is still very scanty and since

Microlara gen.n. mahensis sp.n. is a rather small insect it is possible that related genera will be discovered in the future.

Type species: Microlara mahensis sp.n.

Etymology: Micro (Greek, small) and Lara (type genus of the subfamily). Refers to the comparatively small size of the new genus; gender, feminine.

Microlara mahensis sp.n.

Type locality: Riviere du Cap, Mahé, Seychelles.

Type material: Holotype \bigcirc : "SEYCH., Mahé, 1992 Riv. du Cap 10.12., Malicky". Paraytpes: One \bigcirc labelled as the holotype; 1 \bigcirc : "SEYCH., Mahé, 1992 Casse Dent, 12.12. 500m leg. Malicky".

Diagnosis: Length (pronotum + elytra): 2.3 - 2.5 mm (\heartsuit) and 2.7 mm (\heartsuit). Body form elongate, subparallel, moderately convex.

Dark brown, mouthparts, coxae, trochanters, femora (except apical one-fourth), mesotibia, tarsi and claws paler yellowish.

Labrum and clypeus truncate. Frons finely punctured, superficially microreticulate between punctures. Antenna 11-segmented, pubescent.

Pronotum broader than long; surface punctate as head.

Elytra more than 3 times as long as wide and 2.8 times as long as pronotum, broadest at apical third; lateral margin smooth; humeri moderately gibbous; intervals flat or very slightly convex; punctures of elytral striae becoming finer and shallower and intervals becoming narrower apically; striae effaced on apical sixth.

Mesotibia smooth, pubesence covering only basal one-sixth.

©Arbeitsgemeinschaft Österreichischer Entomologen, Wien, download unter www.biologiezentrum.at



Figs 2 - 4: Microlara gen.n. mahensis sp.n., 2) aedeagus, lateral aspect, 3) same, ventral aspect, 4) female genitalia, ventral aspect.

Aedeagus (Figs 2, 3): Penis long and slender, apically tapering (ventral aspect) and distinctly curved ventrad (lateral aspect); corona situated in apical one-fifth; endophallus without any peculiarities. Parameres long and slender, shorter than penis, apices acute (ventral aspect) and slightly sinuous (lateral view). Phallobasis approximately as long as parameres, cylindrical, parallel-sided.



Fig. 5: Microlara gen.n. mahensis sp.n., hind wing.

Female genitalia (Fig. 4): Terminal segment long and thin; preapical segment (main piece) moderately long, distal sclerite 0.6 times as long as main piece; basal sclerite distinctly longer than the two apical segments and the distal sclerite together, longitudinal sclerotized rod distinct in apical two-third. Median section (oviduct) everted in the single female examined, which is probably an artefact due to treatment with alcohol (the material had been preserved in alcohol by Malicky and was eventually mounted after it was received by the Natural History Museum).

Distribution: So far known only from Mahé, Island (Seychelles).

Etymology: Named in reference to the type locality.

Zusammenfassung

Microlara gen.n. mahensis sp.n. von den Seychellen wird beschrieben. Es ist dies der erste Nachweis einer Elmidae (Larainae) von dieser Inselgruppe. Die geringe Körpergröße, das Fehlen einer geschlossenen Analzelle im Hinterflügel und die Morphologie der männlichen und weiblichen Genitalorgane unterscheiden die neue Gattung deutlich von allen Äthiopischen und Orientalischen Gattungen der Unterfamilie Larainae.

REFERENCES

- BROWN, H.P. 1981: Key to the world genera of Larinae (Coleoptera, Dryopoidea, Elmidae), with descriptions of new genera from Hispaniola, Colombia, Australia, and New Guinea. - Pan-Pacific Entomologist 57: 76-104.
- SPANGLER, P. J. and S. SANTIAGO-FRAGOSO 1992: The aquatic beetle subfamily Larainae (Coleoptera: Elmidae) in Mexico, Central America, and the West Indies. - Smithsonian contributions to Zoology 528: 1-74.
- WALLACE, F. L. and R. C. Fox 1980: A comparative morphological study of the hind wing venation of the order Coleoptera, part II. - Proceedings of the Entomological Society of Washington 82(4): 609-654.

Address of the author: Dr. Manfred A. JÄCH,

Naturhistorisches Museum, Burgring 7, A-1014 Wien, Austria.

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: Zeitschrift der Arbeitsgemeinschaft Österreichischer Entomologen

Jahr/Year: 1993

Band/Volume: 45

Autor(en)/Author(s): Jäch Manfred A.

Artikel/Article: Microlara gen.n., from the Seychelles (Coleoptera: Elmidae, Larainae). 15-18