

On the systematic position of *Seychellesius* Carvalho (Heteroptera: Miridae)

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Abstract. The monotypic genus *Seychellesius* Carvalho is transferred from the subfamily Cylapinae to Deraeocorinae, tribus Termatophylini Reuter. Redescriptions and illustrations of the genus and its single species *Seychellesius niger* (Distant) are given.

INTRODUCTION

The species *Fulvius niger* was described by Distant (1913) on the basis of a single specimen, which had been collected on the Seychelles Islands. Distant placed the new species in the genus *Fulvius* Stål, but was uncertain about its systematic position, and therefore put a question mark in the description and on the label. In the original description he wrote that this species was also allied to the genus *Fulvidius* Poppius.

During the examination of the type specimen in the collection of the British Museum (Natural History), Carvalho (1988) established a new genus *Seychellesius* for Distant's species. Carvalho placed the new genus in Cylapinae, tribe Fulviini and pointed out that the new genus might be easily differentiated from *Fulvius* Stål on the basis of the peculiar row of spines on metafemora.

During the examination of the holotype of *Seychellesius niger* (Distant) I noted very short tibiae, shorter than femora, a transverse furrow on pronotum, very short antennae, and punctured anal vein and R+M on hemelytra (Fig. 1). Such a set of characters is unknown from any genera of Cylapinae. Moreover, the tarsi are slightly thickened in the apical part and the examination of the pretarsal structure (Fig. 2) showed that this genus had nothing to do with Cylapinae and should be transferred to Deraeocorinae. One of the most important characters of Cylapinae is the structure of claws, which are long, slender, usually with a small subapical tooth, and parempodia that are setiform. *Seychellesius* has claws curved, with a strong basal cleft, characteristic of Deraeocorinae, parempodia in Termatophylini are usually setiform but can also be flattened apically (Cassis, 1995) as in *Seychellesius*. *Seychellesius* has the general appearance of Termatophylini. Pretarsal structure, divided pronotum, and punctured veins indicate that it should be placed in this tribe. The length of the first segment of rostrum is thought to be one of the most important distinguishing characters of this tribe (Cassis, 1995); unfortunately the rostrum in the holotype has been broken.

At present Termatophylini are known from Neotropical, Oriental, and Australian Regions, have also been reported from China, Japan, North Africa and the Middle East

(Cassis, 1995). Only one genus – *Teratophylum* – is known also from the Afrotropical region (Schuh, 1995).

Following the key given by Cassis, the first character, “dorsum without rows of punctures on pronotum and hemelytra”, separated the neotropical genus *Teratophylidea* Reuter & Poppius from others. *Seychellesius* differs from the other genera because it has punctured veins on hemelytra but its furrow on the pronotum is not punctured. According to the other characters listed in the key, such as the position of the eyes in relation to pronotal collar, the ratio of punctate R+M and median flexion line, *Seychellesius* is close to the genera *Teratophylum* Reuter and *Teratophyloides* Carvalho. The former has the posterior margin of pronotal collar punctate, in *Seychellesius*, however, it is not punctate just as in *Teratophyloides*. *Seychellesius* in turn has a row of spines in the apical part of metafemour, which are absent from *Teratophyloides* (occur also in the genus *Kundakimuka* Cassis).

The analysis of the phylogenetic relationships given by Cassis (1995, Fig. 131) shows that *Seychellesius* should be placed near the most plesiomorphic of the teratophylinae: *Teratophylina* Carvalho described from India. Relatively small, only slightly convex ommatidia might indicate a monophyletic lineage and separate both genera from the clade formed by the remaining teratophylinae. Of course a detailed analysis of the characters is not possible at present because the single, and partly damaged specimen sunk in glue cannot be a reliable source of data.

TAXONOMY

Subfamily Deraeocorinae Douglas & Scott, 1865

Tribus Teratophylini Reuter, 1884

Genus *Seychellesius* Carvalho, 1988

Seychellesius Carvalho, 1988: 99.

Seychellesius: Schuh, 1995: 37.

TYPE SPECIES: *Fulvius niger* Distant, 1913 (original designation).

Redescription

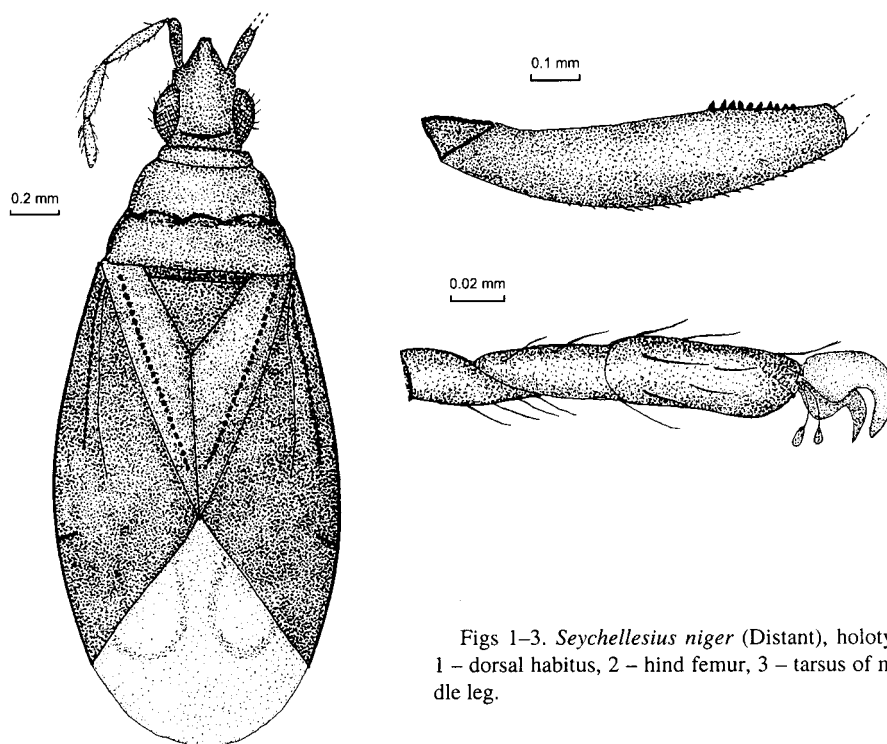
Small, body very flat, elongated, covered with very short, fine setae, eyes elongated in lateral view, almost contiguous with pronotal collar, reaching gula below, covered with setae, vertex with a distinct, protruding margin, antennae very short, inserted on tubercles contiguous with the margins of eyes, the first antennal segment thickest.

Pronotal collar very wide, flat, the anterior lobe of pronotum flat, calli confluent, separated from the posterior lobe by a long, deep, transverse furrow. Lateral margins of pronotum slightly curved and carinate, humeral angles rounded, mesoscutum partly covered by pronotum. Scutellum flat.

Hemelytra well developed, flat, widest in the distal part; anal vein and R+M punctured (Fig. 1), costal fracture distinct; membrane single-celled.

Underside of the body and legs strongly sclerotized; legs very short, covered with dense setae, tibiae shorter than femora, hind femora with spines in the apical part, femora, tibiae and tarsi thickened towards the apex, tarsi two-segmented, the second segment divided, claws curved, with a distinct, basal cleft; parempodia flattened apically (Fig. 3).

Only one known species in the genus.



Figs 1–3. *Seychellesius niger* (Distant), holotype.
1 – dorsal habitus, 2 – hind femur, 3 – tarsus of middle leg.

Seychellesius niger (Distant, 1913)

Fulvius niger Distant, 1913: 182.

Fulvius niger: Bergroth, 1920: 76; Carvalho, 1957: 18; Schuh, 1995: 28.

Sechellesius niger: Carvalho, 1988: 99; Schuh, 1995: 37.

Redescription

Body dark brown, covered with short, pale setae, length of the body 2.73 mm, width 1.0 mm. Head chestnut with silvery eyes, setae on eyes much longer than the diameter of ommatidium. Length of head 0.39 mm seen from above, 0.41 mm in lateral view, width of head 0.41 mm, diameter of eye 0.15 mm, height of head in lateral view 0.23 mm. First antennal segment dark brown, remaining segments pale, covered with long, pale setae, length of the antennal segments in mm: 0.18 : 0.26 : 0.23 : 0.18. Rostrum broken in the examined specimen.

Pronotal collar and pronotum dark brown, width of collar 0.13 mm, length of the anterior margin of pronotum 0.36 mm, length of pronotum (excluding pronotal collar) 0.33 mm, the lateral margins 0.39 mm, the posterior margin 0.72 mm. Mesoscutum and scutellum brown, paler than pronotum.

Hemelytra brown, mat, embolium narrow, cuneus brown, unicoloured, long and wide, length of cuneus 0.52 mm, width 0.39 mm. Membrane grey, cell rounded, venation blurred.

Underside of the body dark brown; coxae, trochanters, femora and tibiae dark brown, covered with dense, dark setae, tibiae pale at apex, tarsi pale. Hind femora with a row of 10 short, thick spines on the inner surface of the apical part (Fig. 2).

TYPE MATERIAL EXAMINED: Holotype ♀: Type [circular label with red margin]; Seychelles Islands, Percy Sladen Trust Expedition. 1911-497; *Fulvius* ? *niger* n. sp Distant [handwritten]. Housed in the British Museum of Natural History, London, UK.

DISTRIBUTION. The Seychelles Islands.

REMARKS. Distant in his original description identified the specimen as a male, whereas in fact the holotype is a female. I have not found on the labels the precise data on the place where the specimen was collected, in the original description Distant wrote: "Loc. Seychelles. Silhouette: from Mare aux Conchons, over 1000 feet. Mahe: precise locality uncertain".

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REFERENCES

- BERGROTH E. 1920: List of the Cylapinae (Hem., Miridae) with description of new Philippine forms. *Ann. Soc. Entomol. Belg.* **60**: 67–83.
- CARVALHO J.C.M. 1957: Catalogue of the Miridae of the World. Part I. Subfamilies Cylapinae, Deraeocorinae and Bryocorinae. *Arq. Mus. Nac. (Rio de Janeiro)* **44**: 1–158.
- CARVALHO J.C.M. 1988: Description of two new genera and taxonomical notes on two species of Miridae. *Rev. Bras. Entomol.* **32**: 99–101.
- CASSIS G. 1995: A reclassification and phylogeny of the Termatophylini (Heteroptera: Miridae: Deraeocorinae), with a taxonomic revision of the Australian species, and a review of the tribal classification of the Deraeocorinae. *Proc. Entomol. Soc. Wash.* **97**: 258–330.
- DISTANT W.L. 1913: Reports of the Percy Sladen Trust Expedition to the Indian Ocean in 1905. No. IX Rhynchota. Part I: Suborder Heteroptera. *Trans. Linn. Soc. Lond.* **16**: 139–190.
- SCHUH R.T. 1995: *Plant Bugs of the World (Insecta: Heteroptera: Miridae)*, *Systematic Catalogue, Distribution, Host List and Bibliography*. New York Entomological Society, New York, 1329 pp.

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