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PTYOPTERYX BRITSKII, A NEW NEOTROPICAL GENUS AND SPECIES OF THE HITHERTO ETHIOPIAN TORRIDINCOLIDAE (COLEOPTERA, MYXOPHAGA)

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ABSTRACT

Ptyopteryx britskii, gen. n., sp. n. (type-locality, Brazil, Rio de Janeiro, São Fidélis), collected in the stomach of a characid fish, is described, and related to the genus *Torridincola* Steffan, 1964, from Africa. Even though some differences are evident, the two genera are considered as representing the same family, Torridincolidae.

The study of the stomach contents of a characid fish of the genus *Acestroramphus*, received for identification from our colleague Naercio A. Menezes, revealed, among other remains of various Arthropoda, a series of small (1,5-2,0 mm), well preserved, elmid-like beetles, belonging to what we consider an undescribed genus and species of a family of Coleoptera recently described from Africa by A. W. Steffan (1964), the Torridincolidae.

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Ptyopteryx, gen. n.

Body ellipsoid-oval, not very convex, shiny, with metallic sheen; deeply sculptured on elytra. Antennae very small, 9-segmented (scape globose, pedicel smaller, following segments increasing in size and thickness towards apex, forming a smooth, small club, with the last segment about as long as the three preceding ones

together); head prolonged in short, snout; hypognathous, with typical mouthparts of the suborder (mandibles with preapical tooth and molar part, the former, as in *Torridincola*, only present in one of the mandibles); maxilla with single maxillary lobe; pro- and mesocoxae slightly oval, transverse; metacoxae elongate, transverse; all coxae very separated from each other. Legs normal, with 4-segmented tarsi (segments one and two very small, visible only in microscopic preparation; three and four each more than twice as long as one and two together), claws simple. Hind wings fringed around margin, except near "costal region"; "oblong cell" present. Abdomen with 4 visible sternites (between the penultimate and the last segments there is a semilunar depression, differently built in male and female; in the male it is simply semilunar, while in the female the depression is medially prolonged towards the apex of the abdomen. A sharp, thin keel, which starts between the hind coxae, ends in this abdominal depression of unknown function. Is it the vestigial, 5th abdominal segment which is present in *Torridincola* as a normal segment?).

TYPE-SPECIES:***Ptyopteryx britskii*, sp. n.**

(Figs. 1-12)

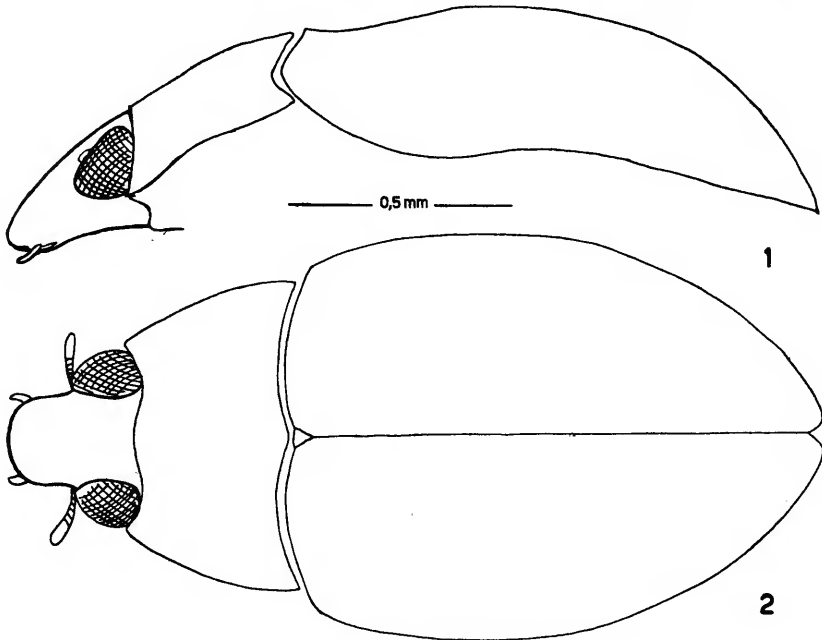
TYPE-DATA

Holotype and 16 paratypes, from Brazil, state of Rio de Janeiro, São Fidélis, from the stomach of *Acestroramphus* sp. (Pisces, Characidae, DZ 4746), collected in the Córrego Pedra d'Água, 25.I.1965, by H. A. Britski. Parts of broken specimens, from same series, mounted on microscope slides. Holotype ♂, 6♂ and 5♀ paratypes and microscope slides in the Departamento de Zoologia, São Paulo; 1♂ paratype in the Museum of Comparative Zoology, Cambridge, United States; 1♂ paratype in the American Museum of Natural History, New York, United States; 1♀ paratype in the California Academy of Sciences, San Francisco, United States; 1♀ paratype in the United States National Museum, Washington, D.C., United States; and 1♂ paratype in the British Museum (Natural History), London, England.

DESCRIPTION

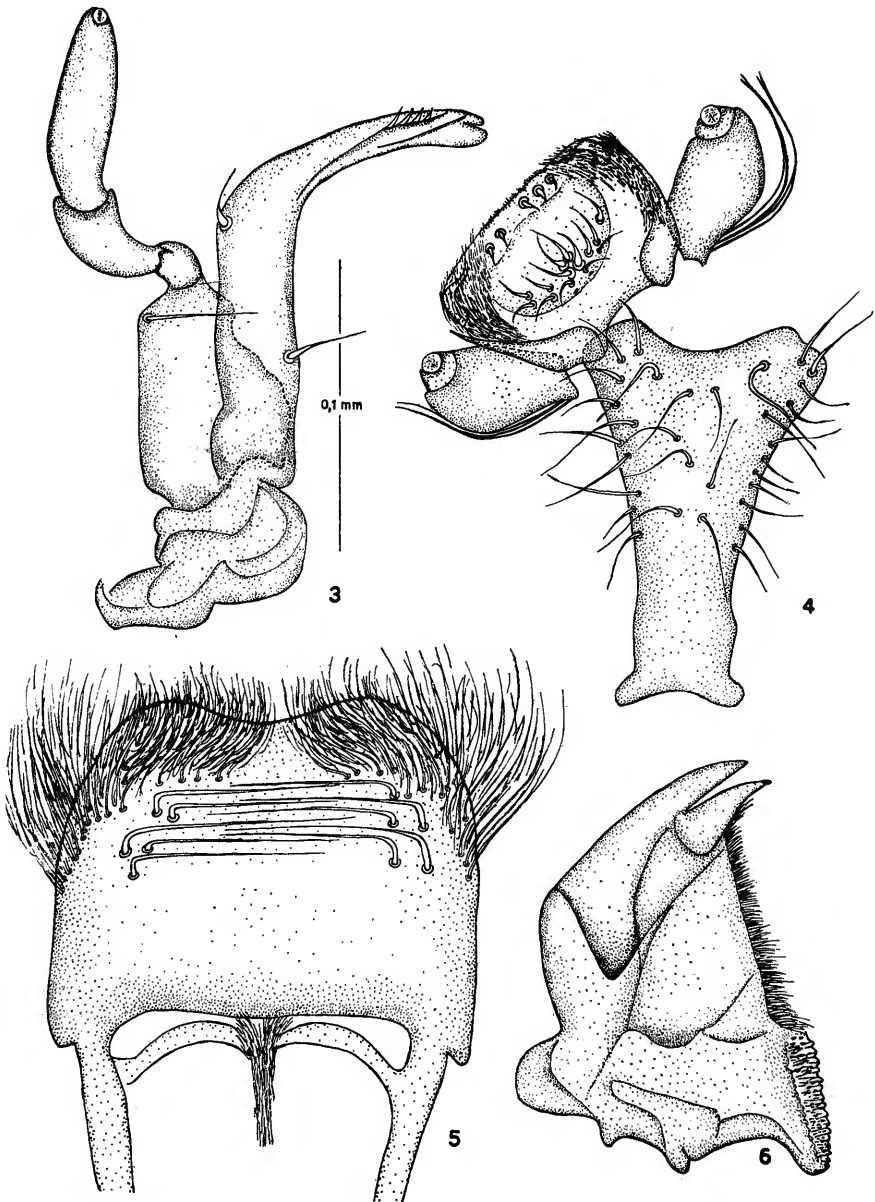
Black, shiny, with red and green metallic sheen. Head elongate, prolonged in short snout; eyes relatively large, slightly convex, their posterior margin in contact with anterior margin of pronotum, slightly above the middle of the eyes; antennae (fig. 12) very short (slightly shorter than the longest diameter of the eye), 9-segmented, with globose scape, smaller pedicel, and following 7 segments increasing in size and thickness towards apex, forming a smooth club; mouthparts (figs. 3-6) on inferior part of head; frons with two, almost parallel ridges running from upper margin of eye to anterior part of snout; surface of head punctured, as

pronotum. Pronotum transverse, widest in posterior third, with anterior angles projected; anterior margin sinuate; posterior angles not very sharp, angulate; posterior margin sinuate, forming a median angle, projected towards scutellum; surface densely punctate, regularly convex, depressed near posterior angles. Scutellum very small, triangular, smooth. Elytra wider than pronotum, with partially developed humeral calluses. Surface punctate-sulcate; on discal part the striae (9 - 10) are complete, reaching apex of elytra; laterally the striae are fused, forming a densely punctate



Ptyopteryx britskii, gen. n., sp. n.: fig. 1, lateral view; fig. 2, dorsal view.

region; parallel to the lateral margin of elytra runs a strong ridge, separated from the latter by slightly more than the width of one interstice; at apex this lateral ridge is fused to the second interstice; all interstices convex and elevated. Prosternum with large prosternal process, which separates the very slightly ovate coxae by more than their diameter; mesosternum separating the median, ovate coxae as much as the prosternum; the very transverse coxae closer to each other than the front and median coxae, but nevertheless very clearly separated. Abdomen with four visible segments, all with well defined sutures; between the third and fourth (penultimate and last) visible segments with a well defined, semilunar depression (vestigial, 5th segment?). Legs equally well developed, all with 4-jointed tarsi, the first two seg-



Ptyopteryx britskii, gen. n., sp. n., mouthparts: fig. 3, maxilla; fig. 4, labium; fig. 5, labrum; fig. 6, mandible.

ments very small, the third and fourth each twice as long as first and second together (fig. 10). Genitalia as in figs. 7 and 8; aedeagus with parameres prolonged each in a long filament.

Measurements (10 specimens measured; in mm)

total length	1,50 — 1,87
elytral length	0,87 — 1,25
pronotal length	0,37 — 0,47
maximum width	0,80 — 1,07
pronotal width	0,60 — 0,75

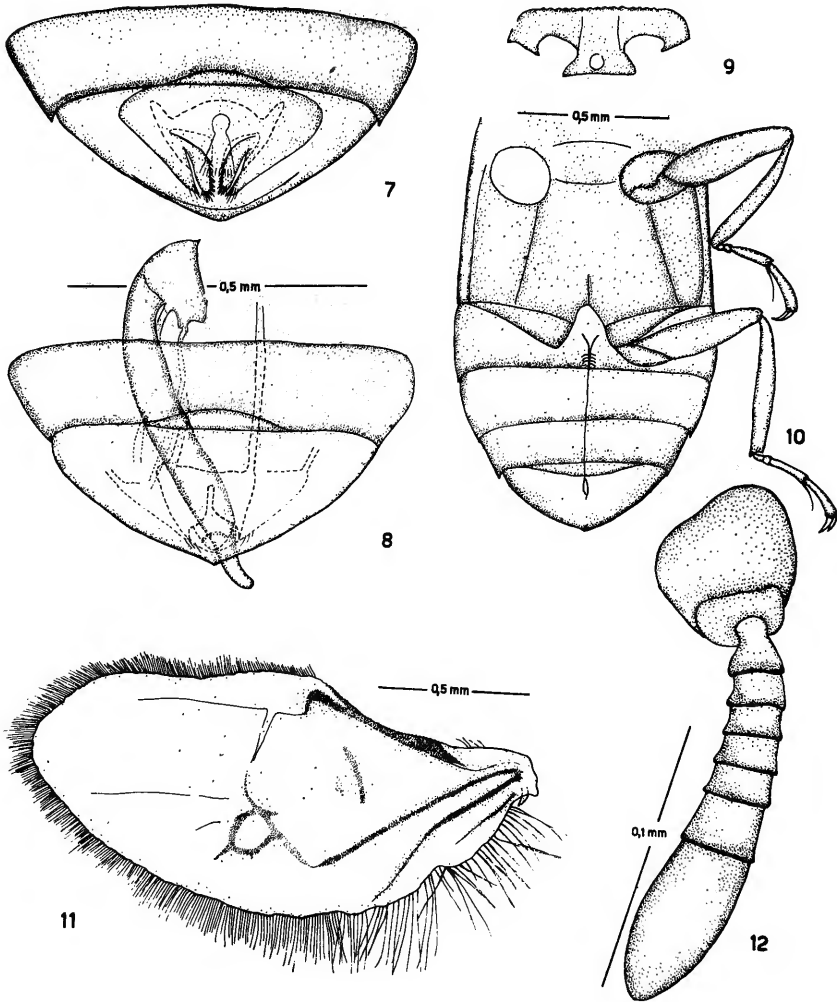
TAXONOMIC DISCUSSION

The hind wings and the very typical mouthparts of *Ptyopteryx*, gen. n., definitely include the genus in the suborder Myxophaga, hitherto unknown from South America (the Lepiceridae also occur in the Neotropical Region, but reach only as far south as Panama). The notopleural sutures, which are very characteristic of the suborder too, are not very distinctive in the specimens at hand, but they seem likely to be present.

Ptyopteryx is closest to *Torridincola* Steffan, 1964, among the Myxophaga. The two genera possibly only differ in the number of abdominal segments: *Torridincola* has 5 visible segments, while *Ptyopteryx*, as discussed above, has only 4. A semilunar depression between the penultimate and the last segments of *Ptyopteryx*, could possibly be interpreted as a vestigial 5th segments, however, the sexual dimorphism connected to it makes us leave the problem at this stage. The similarity of the wings of the two genera is very striking (see fig. 11 and fig. 1 in Steffan, 1964); the tarsi are very similarly built: the two genera have 4-jointed tarsi, however, from Steffan's illustration of *Torridincola* (fig. 7 in Steffan, 1.c.) it is apparent that the third segment is shorter than the fourth, while these segments are about equally sized in *Ptyopteryx* (fig. 10); the two genera, as also the other Myxophaga (*apud* Crowson, 1955: 4) have a single maxillary lobe (considered as being the lacinia by Crowson; described as galea by Steffan). The mandibles of the two genera have the typical, articulated, preapical tooth (while only *Ptyopteryx* seems to have the basal "molar" part of the mandible — fig. 6). One final striking similarity between *Torridincola* and *Ptyopteryx*, is the aedeagus, which in *Torridincola* has each paramere prolonged in a long flagellum (figs. 4-5 in Steffan, 1.c.); in *Ptyopteryx* the genitalia was only studied by transparency, but nevertheless at least the bases of such flagella are clearly present (fig. 8).

In *Ptyopteryx britskii*, gen. n., sp. n., we have observed the sexual dimorphism of a semilunar depression between two abdominal segments. Such dimorphism is not present in the genus *Torridincola*.

There seems to be no doubt about the relationships of the genera *Torridincola* and *Ptyopteryx*. In spite of some differences and the very interesting geographic distribution (*Torridincola* is African, *Ptyopteryx* South American), we place *Ptyopteryx* in the family Torridincolidae.



Ptyopteryx britskii, gen. n., sp. n.: fig. 7, female genitalia; fig. 8, male genitalia; fig. 9, prosternum; fig. 10, ventral view of thorax and abdomen; fig. 11, hind wing; fig. 12, antenna.

Nothing positive about the habits of *Ptyopteryx britskii* is thus far known. The fact that *Torridincola rhodesica* Steffan, 1964 was collected in seasonal mountain streams (Steffan, 1.c.: 198), as well as the fact that the type-species of *Ptyopteryx* was found in the stomach of a fish, strongly support the hypothesis of aquatic habits for *Ptyopteryx* too. Immature stages (which have been described for *Torridincola*) of *Ptyopteryx* have not been found together with the adults.

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