

TWO NEW BUCEPHALIDAE (TREMATODA) FROM FISHES OF THE BRAZILIAN AMAZON

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ABSTRACT — Two new species of Bucephalidae (Trematoda) are described from fishes of the Brazilian Amazon. *Glandulorhynchus turgidus* gen. et sp. n. from *Hydrolycus* sp. differs from all others in the family by having conspicuous glands near the anterior extremity and an expanded uterus used for storing eggs. *Prosorhynchus piranhus* sp. n. from *Serrasalmus rhombeus* is characterized as having a small rhynchus and pharynx, and a large cirrus sac.

Key words: trematodes, fish parasites, bucephalids, Brazil, Amazonia.

Duas Novas Espécies de Bucephalidae (Trematoda) de Peixes da Amazônia Brasileira

RESUMO — Duas novas espécies de Bucephalidae (Trematoda) são descritas de peixes da Amazônia brasileira. *Glandulorhynchus turgidus* gen. et sp. n. parasita de *Hydrolycus* sp. distingue-se das demais espécies da família por apresentar glândulas conspicuas próximo à extremidade anterior e um útero expandido para amazenar ovos. *Prosorhynchus piranhus* sp. n. parasita de *Serrasalmus rhombeus* é caracterizado por ter um "rhynchus" pequeno e uma bolsa de cirro grande.

Palavras chaves: trematódeos, parasitas de peixes, bucefalídeos, Brasil, Amazônia.

INTRODUÇÃO

The Bucephalidae constitute a small family of trematodes found mainly in marine fishes. Thatcher (1993) listed nine genera and 28 species from the Neotropical Region but only five of these have been reported from freshwater. In Brazil, the bucephalids are known principally through the publications of Kohn (1961a; 1961b; 1962a; 1962b; 1963; 1966; 1967a; 1967b; 1968; 1970a; 1970b; 1970c). In the present work, two new species, one of which is a new genus, are described.

MATERIALS AND METHODS

Fish hosts were netted, identified and eviscerated in the field. Their intestinal tracts were removed, fixed in 10% formalin solution and later transferred to 70% ethanol. At the laboratory in Manaus, the preserved digestive tracts were opened and

the contents were examined by washing and hand sedimentation. Whole mount preparations were made by means of the phenol/balsam method explained in Thatcher (1991). Drawings were made with the aid of a Zeiss drawing tube. Measurements were made with a measuring ocular and mean sizes are followed by the extremes in parentheses. All sizes are in micrometers (μm) unless indicated as millimeters (mm).

RESULTS

Systematic Section

Family Bucephalidae Poche, 1907

Glandulorhynchus gen. n.

Generic diagnosis: Body stout, flattened, unspined; rhynchus sucker-like, provided with numerous glands. Pharynx small, near equator or poste-

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rior thereto; gut saccular, mostly posterior to pharynx. Testes two, spherical, diagonal, posterior to pharynx; cirrus sac small, at posterior extremity; genital pore subterminal. Ovary spherical, anterior to pharynx; vitellaria in grape-like clusters, extending anterolaterally in anterior half of body; uterus tubular forming massive uterine reservoir on side of body; eggs small, numerous. Intestinal parasites of freshwater fishes.

Type species: *Glandulorhynchus turgidus* sp. n.

***Glandulorhynchus turgidus* sp. n.**
(Figs. 1, 2)

Host: *Hydrolycus* Müller &

Troschel, 1844: (The ichthyologists consider this host to be a new species and they plan to describe it in the near future).

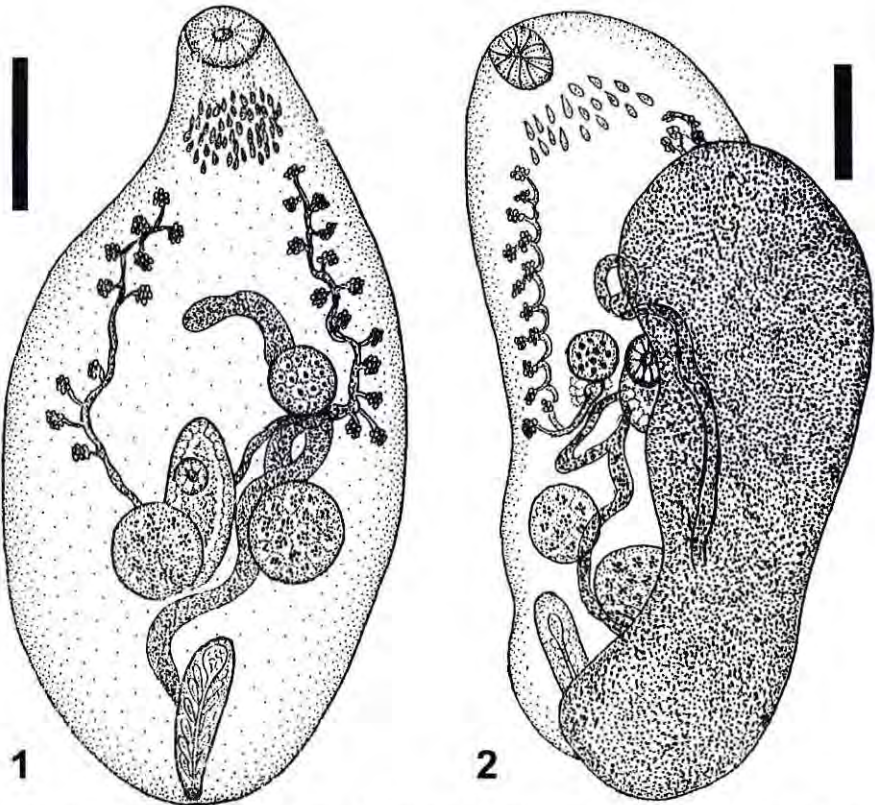
Site: Intestinal tract.

Locality: Japirim, Samuel, Rondônia State, Brazil.

Holotype (INPA-367) and 9 paratypes INPA-368a-i: Invertebrate Collection of the Instituto Nacional de Pesquisas da Amazônia, Manaus, AM, Brazil.

Collector: J.C. Malta, 12/6/85.

Etymology: The generic name refers to the glands associated with the rhynchus and the specific name (*turgidus* = swollen) is in reference to the uterine reservoir.



Figures 1, 2. *Glandulorhynchus turgidus* gen. et sp. nov. (ventral view). scale bars = 1 mm.

Species description (10 specimens measured): With the characters of the genus. Body 6.5 (5.0-7.3) mm long and 3.0 (2.5-3.5) mm wide. Rhynchus 629 (562-811) long by 630 (541-811) wide; glands associated with rhynchus 131-174 long and 87-89 wide. Pharynx 276 (208-312) long by 288 (250-354) wide; gut 1.4 (0.6-1.9) mm long and 535 (461-624) in diameter. Anterior testis 0.84 (0.6-1.0) mm long and 0.7 (0.5-0.8) mm in width; posterior testis 0.8 (0.6-1.0) mm long and 0.7 (0.6-0.8) mm wide; cirrus sac 1.3 (1.2-1.5) mm long and 335 (270-416) in diameter. Ovary 418 (354-478) long and 404 (354-416) wide; vitelline glands measure 40-60, clusters of glands 166-205; uterine reservoir measures 4.5-6.0 mm long by 2.0-2.5 mm wide; eggs measure 19 x 10 (18-20 x 9-11).

Remarks: *Glandulorhynchus turgidus* gen. et sp. n. is not closely similar to any other known bucephalid trematode. It has three unique features, namely: 1) glands in the anterior region associated with the rhynchus; 2) grape like vitellaria; and 3) a large uterine reservoir.

Prosorhynchus Odhner, 1905

Prosorhynchus piranhus sp. n. (Fig. 3)

Host: *Serrasalmus rhombeus* (Linnaeus, 1766).

Site: Intestinal tract.

Locality: Capucapu River, Amazonas State, Brazil.

Holotype (INPA-369) and 5 paratypes (INPA-370a-e): Invertebrate Collection of the Instituto Nacional de Pesquisas da Amazônia,

Manaus, AM, Brazil.

Collector: M. Jégu, 30/9/88.

Etymology: The specific name comes from the common name of the host fish (piranha).

Specific diagnosis (6 specimens measured): Body subspherical measures 963 (783-1,088) long and 635 (422-748) wide. Rhynchus small, measures 93 (66-119) long and 112 (88-132) wide. Pharynx small, 76 (66-83) long by 77 (66-83) wide; gut saccular, projects anteriorly from pharynx, measures 149 (88-198) long and 95 (73-110) wide. Testes, subspherical, tandem, lateral and posterolateral to pharynx; anterior testis measures 113 (101-132) long and 88 (77-110) wide; posterior testis 121 (110-132) long and 103 (88-117) wide; cirrus sac measures 362 (176-487) long and 97 (66-113) in diameter. Ovary subspherical, lateral to pharynx, pretesticular, measures 90 (57-125) long and 77 (50-99) wide; vitellaria consist of few spherical follicles centrally situated, pre-equatorial, measure 26-44 in diameter; eggs measure 48 x 25 (44-55 x 22-31).

Remarks: The species attributed to the genus *Prosorhynchus* differ considerably among themselves. Some species have a sucker-like rhynchus and in others that organ is plug-like. The type species of the genus, *P. squamatus* Odhner, 1905, described from a marine fish, has a sucker-like rhynchus and somewhat resembles the new Amazonian species. *P. piranhus* sp. n. differs from the type species in having a more compact, subspherical body, vitellaria far from the anterior extremity and a larger cirrus sac.

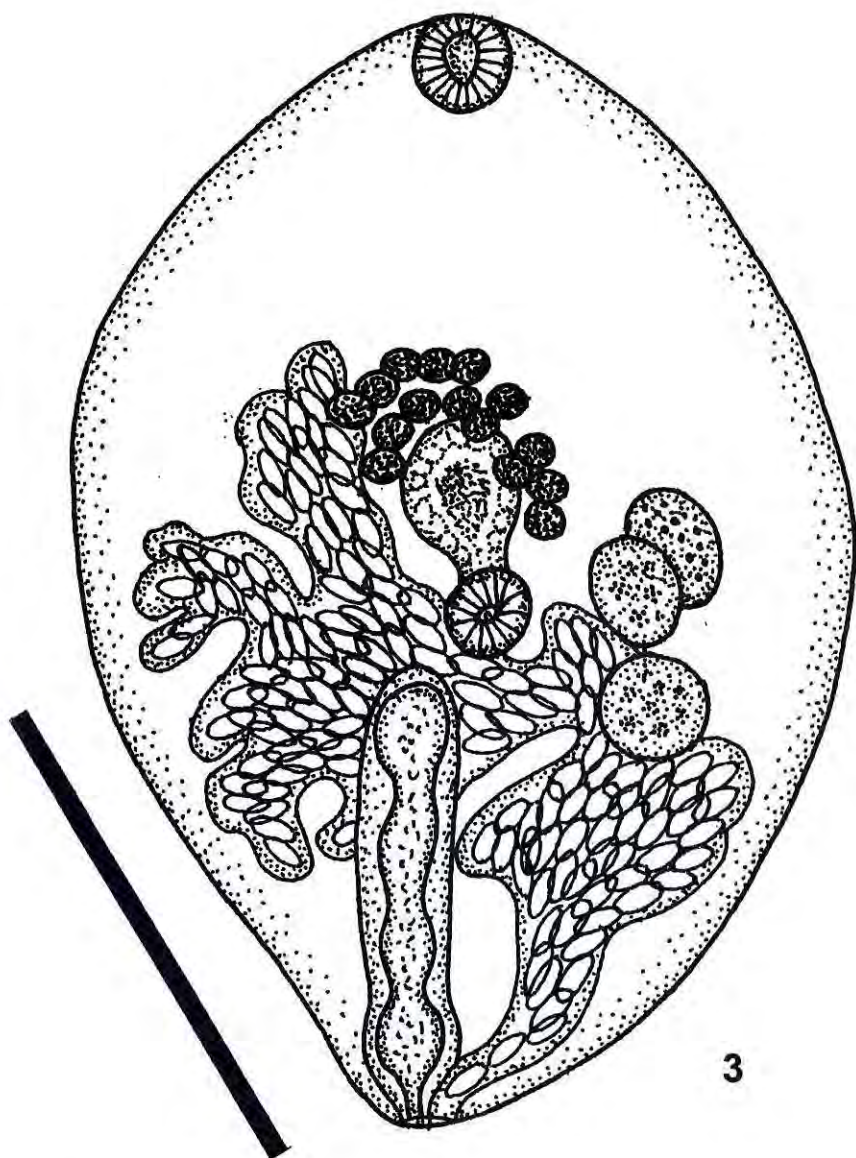


Figure 3. *Prosorhynchus piranhus* sp. nov. (ventral view). scale = 500 μ m.

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