

A NEW SPECIES OF *MICROCOTYLE* VAN BENEDEN & HESSE, 1863, PARASITIC ON "NAMORADO", *PSEUDOPERCIS NUMIDA* RIBEIRO, 1903 AND *P. SEMIFASCIATA* (CUVIER, 1829), FROM THE COAST OF THE STATE OF RIO DE JANEIRO, BRAZIL.

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SUMMARY: *Microcotyle pseudopercis* n. sp. van Beneden & Hesse, 1863, parasite of gill filaments of "namorados", *Pseudopercis numida* Ribeiro, 1903 and *P. semifasciata* (Cuvier, 1829) from the coast of the State of Rio de Janeiro, Brazil, is described and illustrated. The new species differs from *M. arripis* by the: 1. disposition of the spines in the genital atrium, 2. shape of the ovary, which is a double inverted "U", 3. vaginal pore without spines, and 4. larger number of testes. The new species differs from *M. pomatomi* by the: 1. general shape of the genital atrium and spine disposition, 2. lack of the posterior confluence vitellaria, 3. position of the vagina.

KEY WORDS: Monogenea, *Microcotyle*, *Microcotyle pseudopercis* n.sp., "namorado", *Pseudopercis*, South Atlantic Ocean.

INTRODUCTION

According to the recent revision by MAMAEV (1986), the Microcotylidae has 39 genera and 150 species. This genus has species with wide geographic distribution and without host specificity. In the present paper, a new species of *Microcotyle*, parasite of two species of "namorados", *Pseudopercis numida* and *P. semifasciata*, Mugiloididae, of geographic distribution restricted from the southeastern Brazilian coast to the northern Argentinian coast, is described and illustrated. As far as known, neither species of *Pseudopercis* have been the subject of parasitological studies.

MATERIALS AND METHODS

In the period between November 1991 and February 1992, nine specimens of *P. numida* and two specimens of *P. semifasciata* were examined for monogenean gill parasites. The fishes were caught from the deep waters off the coast of the State of Rio de Janeiro (21-23° S; 41-45° W), by professional fishermen. The examination of the gills was carried out in the Laboratory of Ictioparasitology, Universidade Federal Rural do Rio de Janeiro. The examined fishes measured between 40.0-61.5 cm in standard

length and weighed between 1020-4100 g. The fishes were identified according to MENEZES & FIGUEIREDO (1985). The helminths were processed according to AMATO *et alii* (1991). The measurements are in micrometers, unless otherwise indicated. The range is followed by the average and the number in average within parentheses. The ecological terms follow MARGOLIS *et alii* (1982). The holotype and some paratypes were deposited in the Helminthological Collection of the United States National Museum (USNM), Beltsville, MD, USA. Paratypes were also deposited in the Coleção Helmintológica do Instituto Oswaldo Cruz (CHIOC), Rio de Janeiro, RJ, Brazil.

DESCRIPTION

Microcotyle pseudopercis n. sp.

(Figs. 1-5)

DESCRIPTION (based on 33 specimens mounted in toto, 12 specimens measured): Microcotylidae. Body elongate, with constriction at level of cecal bifurcation, 4.11-6.22 mm (4.81 mm, n=12) long, 365-693 (529, n=12) of maximum width. Haptor 23.5% of body length, 0.82-1.55 mm (1.13 mm, n=11) long; clamps of *Microcotyle* type, 51-69 (57, n=5) in number, each one, 51-64 (58, n=5) long, 73-95 (84) wide, size uniform; midsclerite with complementary process

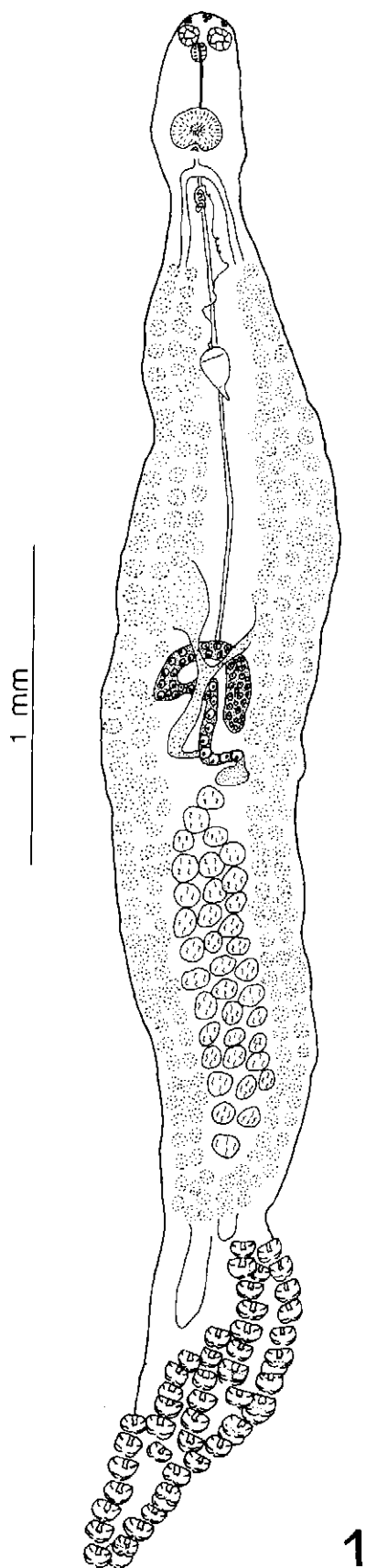


Fig. 1. *Microcotyle pseudopercis* n. sp. - holotype, ventral view.

complex, trifurcate; two lateral, coplanar branches; central branch longer, not coplanar. Bucal organs, septate, without spines, 66-73 (69, n=12) long; cephalic glands in three groups; pharynx oval, 51-66 (58, n=9) long; esophagus inconspicuous, 161-270 (210, n=4) long; cecal bifurcation posterior to genital atrium; ceca penetrating first third of haptor, without posterior confluence. Testes postovarian, intercecal, not reaching posterior margin of haptor, 32-44 (35, n=7) in number, 62-95 (77, n=7) in diameter; genital atrium kidney-shaped with central elevation, with spines; vas deferens widening to form seminal vesicle, dorsal to uterus. Ovary long, double inverted "U" shaped; oviduct dorsal to genito-intestinal canal; vagina middorsal, immediately posterior to genital atrium, without spines; eggs fusiform, operculated, with anterior and posterior filaments, 255-292 (238, n=8) long, 58-117 (77, n=8) wide.

Taxonomic summary

Type host: *Pseudoperca numida* Ribeiro, 1903, "namorado", Mugiloididae.

Other host: *Pseudoperca semifasciata* (Cuvier, 1829), "namorado", Mugiloididae.

Site of infestation: gill filaments.

Type locality: coast of the State of Rio de Janeiro, Brazil.

Prevalence: 81.8%.

Intensity of infection: 78, in nine hosts.

Mean intensity of infection: 8.6.

Specimens deposited: USNM holotype N^o 83358, paratype N^o 83359, CHIOC paratype N^{os} 33290 a e b.

Etymology: the specific name *Pseudoperca* refers to the generic name of the hosts.

Remarks

MAMAEV (1986) listed 47 species within the genus *Microcotyle* van Beneden & Hesse, 1863, and indicated that the validity of many of them could not be estimated at that time due to the need of type material examination and due to lack of strong host specificity.

WILLIAMS (1991) described specimens of *M. arripis* Sanders, 1945 and of *M. pomatomi* Goto, 1900, which show that the two species are similar to *M. pseudopercis* n. sp.

Microcotyle pseudopercis n. sp. is similar to *M. arripis*, parasite of *Arripis georgianus* (Val. 1831) (Arripidae) by having the: 1. same general body shape; 2. same shape and position of the genital atrium, 3. vagina middorsal, 4. testes intercecal; and differ by the: 1. disposition of the spines in the genital atrium, 2. shape of the ovary, which is a double inverted "U" and not a simple inverted "U", 3. vagina without spines, without two groups of small spines on the sides of it, and for the 4. larger number of testes. *Microcotyle pseudopercis* n. sp. is similar to *M. pomatomi* for the: 1.

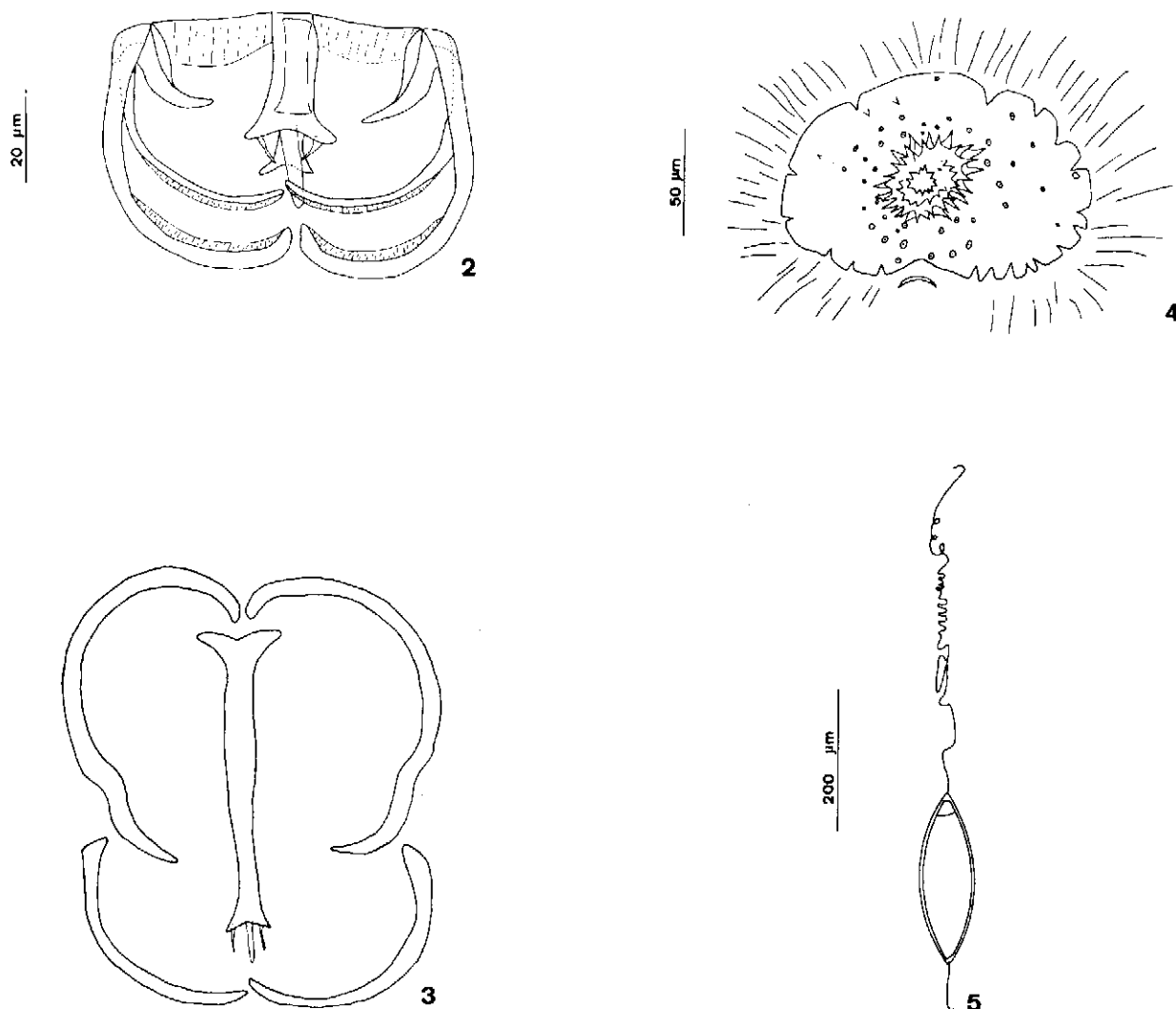
Figs.2-5. *Microcotyle pseudopercis* n. sp.

Fig.2. Clamp. Fig.3. Clamp, diagrammatic. Fig.4. Genital atrium and vagina. Fig.5. Egg.

cecal bifurcation bellow the genital atrium (as seen in GOTO, 1900) and not above (as seen in WILLIAMS, 1991), 2. ovary as a double inverted "U", 3. testes intercecal, and 4. presence of cephalic glands, and differs by the: 1. general shape and spine disposition in the genital atrium, 2. lack of posterior confluence in the vitellaria (as seen in GOTO, 1900), and for the 3. position of the vagina (bellow cecal bifurcation as seen in GOTO, 1900).

Although *M. pomatomi* has a wide geographical range of occurrence and for this reason shows morphometrical differences according to locality, it is the species which most closely resembles the new species now being described. WILLIAMS (1991) showed intraspecific variations in *M. pomatomi* from various localities where the genital atrium,

had different peripheral spine distribution, but had three groups of non peripheral spines, allowing thus comparison with this specific character.

In Brazil, KOHN & BÜHRNHEIM (1971) registered *M. pomatomi* from *Pomatomus saltator* (L., 1766) in the Guanabara Bay, State of Rio de Janeiro. Their specimens, when compared with those of WILLIAMS (1991) and with those of GOTO (1900), present morphometric differences, mainly in relation to the length of the esophagus, and, consequently, the position of the genital atrium. The specimens of KOHN & BÜHRNHEIM (1971) and those of GOTO (1900) have a longer esophagus which forces the genital atrium to be below the cecal bifurcation and those of WILLIAMS (1991), on the contrary, have a shorter

esophagus and the genital atrium above the cecal bifurcation. The clamps in *M. pseudopercis* n. sp. present a third median, non-coplanar, supplementary sclerite (Fig. 3), character not mentioned by the other authors. Older works present incomplete information in the drawings related to the clamps.

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SUMÁRIO

Microcotyle pseudopercis sp. n. van Beneden & Hesse, 1863, parasita dos filamentos branquiais de "namorados", *Pseudopercis numida* Ribeiro, 1903 e *P. semifasciata* (Cuvier, 1829) da costa do Estado do Rio de Janeiro, Brasil. A nova espécie difere de *M. arripis*: 1. pela disposição dos espinhos do átrio genital, 2. pela forma do ovário, o qual é duplo "U" invertido, 3. pela vagina sem espinhos, e 4. pelo maior número de testículos. A nova espécie difere de *M. pomatomi*: 1. pela forma do átrio genital e pela disposição dos espinhos do átrio genital, 2. por não apresentar confluência posterior das glândulas vitelogenéticas, e 3. pela posição da vagina.

PALAVRAS-CHAVE: Monogenea, *Microcotyle*, *Microcotyle pseudopercis* n.sp., "namorado", *Pseudopercis*, Oceano Atlântico Sul.

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