

FIRST REPORT OF THE GENERA *MACVICARIA* GIBSON & BRAY, 1982,  
*PACHYCREADIUM* MANTER, 1954 AND *SATURNIUS* MANTER, 1969  
(TREMATODA: DIGENEA), IN BRAZILIAN MARINE FISHES

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*Macvicaria crassigula* (Linton, 1910) (Opecoelidae) is referred from the intestine of *Diplodus argenteus*; *Pachycreadium gastrocotylum* (Manter, 1940) (Opecoelidae) is reported from the intestine of *Micropogonias furnieri* and from *Stellifer rastrifer*; and *Saturnius maurepasi* Overstreet, 1977 (Bunocotylidae) from the stomach of *Mugil liza*. This is the first report of these species in Brazil, and new host records are presented.

Key words: *Macvicaria crassigula* – *Pachycreadium gastrocotylum* – *Saturnius maurepasi* – marine fishes – Brazil

*Macvicaria crassigula* (Linton, 1910) was redescribed by Bartoli et al. (1989) based on specimens recovered from ten different hosts from five localities. These authors presented the synonyms, records and possible records, a list of the definitive hosts, the geographical distribution and the specific variation of this trematode in different hosts. According to Bartoli et al. (1989), *M. crassigula* was already reported from North West and South East Atlantic; Mediterranean Sea and Indian Ocean, from different hosts. In this paper this species is referred for the first time in the Brazilian Atlantic Coast and in a new host.

*Pachycreadium gastrocotylum* (Manter, 1940) and *Saturnius maurepasi* Overstreet, 1977, already reported from South America, in this opportunity are referred for the first time in Brazil, and new host records to these species are presented.

#### MATERIALS AND METHODS

The trematodes were recovered from fishes from "Praia de Copacabana", Rio de Janeiro State, Brazil, and were fixed under coverslip pressure in Railliet and Henry's fluid, stained in alcoholic chloroformic carmine of Langeron, dehydrated in ethyl alcohol, cleared in beechwood creosote and mounted in Canada

balsam. The illustrations were made with the aid of a Leitz drawing tube, and the measurements are in micrometres unless otherwise stated. Material is deposited in the Helminthological Collection of the "Instituto Oswaldo Cruz" (IOCHC). Considering that these trematodes are well described, we present only the main measurements and figures of each species.

#### RESULTS

*Macvicaria crassigula* (Linton, 1910)  
Bartoli, Bray & Gibson, 1989 (Opecoelidae)  
Fig. 1

Host: *Diplodus argenteus* (Valenciennes, 1830), common name "marimbá", Sparidae (new host record).

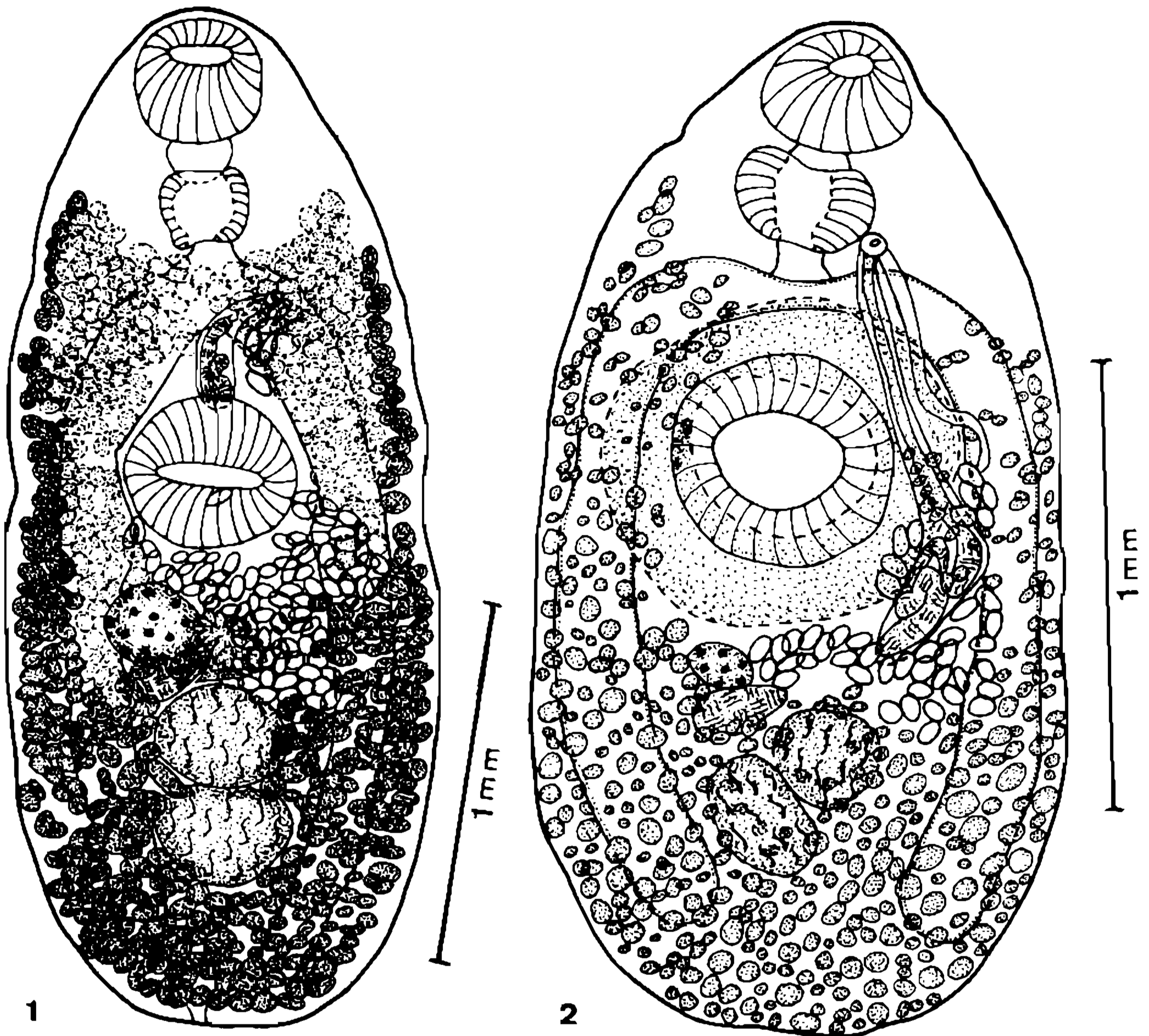
Site: Intestine.

Locality: "Praia de Copacabana", Rio de Janeiro State, Brazil.

Voucher specimens deposited: IOCHC no. 32.723 a-b.

Measurements based on two specimens collected from one out of nine examined fish: Body 2.56-2.65 mm long by 0.92-1.15 mm wide. Forebody 923-969. Hindbody 1259. Fore/Hindbody length ratio: 1:1.30-1.36. Oral sucker 279-317 long by 298-326 wide. Ventral sucker 345-401 long by 410-447. wide. Sucker width ratio 1:1.37. Prepharynx 65-75 long. Pharynx

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*Macvicaria crassigula* (Linton, 1910) – Fig. 1: adult, ventral view, from *M. furnieri*. *Pachycreadium gastrocotylum* (Manter, 1940) – Fig. 2: adult, ventral view.

176-205 long by 210-225 wide. Oral sucker/pharynx width ratio 1:0.69-0.70. Esophagus 41-55 long. Anterior testis 270-359 long by 277-352 wide. Posterior testis 277-296 long by 311-363 wide. Distance ventral to anterior testis 244-377 long. Post-testicular space 361-392 long. Cirrus-sac 344-355 long by 75-93 wide. Ovary 180-221 long by 202-258 wide. Seminal receptacle 75-97 long by 240-266 wide. Uncollapsed eggs 66-75 long by 33-40 wide.

*Pachycreadium gastrocotylum* (Manter, 1940) Manter, 1954 (Opecoelidae)  
Fig. 2

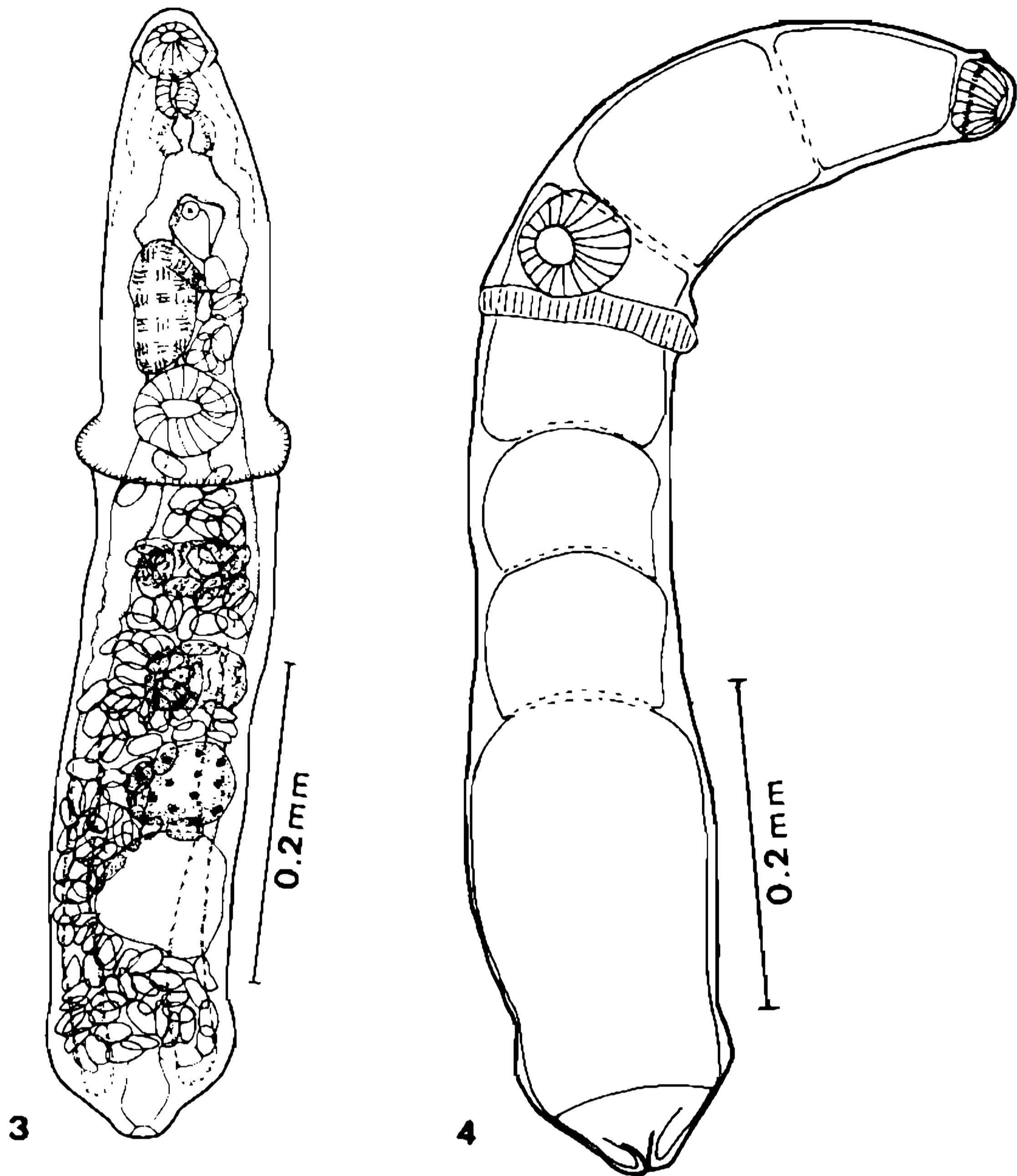
We recovered 29 specimens from the intestine of five out of 16 *M. furnieri*, and five specimens from the single *S. rastrifer* examined.

Host: *Microponias furnieri* (Desmarest, 1823), common name "corvina", Scianidae (new host record).

Site: Intestine.

Locality: "Praia de Copacabana", Rio de Janeiro State, Brazil.

Voucher specimens deposited: IOCHC nos. 32.653, 32.654, 32.725, 32.726, 32.731-32.733. Measurements based on 18 specimens. Body 1.97-3.73 mm long by 1.15-1.92 mm wide. Oral sucker 233-298 long by 261-475 wide. Ventral sucker 410-718 long by 457-643 wide. Sucker width ratio 1:1.3-1.8. Prepharynx 27-61 long. Pharynx 176-285 long by 225-326 wide. Esophagus 33-86 long. Anterior testis 221-307 long by 240-401 wide. Posterior testis 112-382 long by 202-391 wide. Cirrus-sac 214-



*Saturnius maurepasi* Overstreet, 1977 – Fig. 3: adult, ventral view. Fig. 4: general outline, ventral view.

906 long by 130-298 wide. Ovary 93-225 long by 108-198 wide. Seminal receptacle 82-213 long by 105-228 wide. Uncollapsed eggs 61-82 long by 30-47 wide.

Host: *Stellifer rastrifer* (Jordan, 1889), common name “cangoá”, Scianidae (new host record).

Site: Intestine

Locality: “Praia de Copacabana”, Rio de Janeiro State, Brazil.

Voucher specimens deposited: IOCHC no. 32.724 a-f

Measurements based on three specimens: Body 2.30-3.18 mm long by 0.94-1.61 mm wide.

Oral sucker 158-279 long by 186-298 wide. Ventral sucker 317-559 long by 345-541 wide. Sucker width ratio 1:1.8-2. Prepharynx 18-37 long. Pharynx 86-186 long by 97-270 wide. Esophagus 46-76 long. Anterior testis 270-382 long by 317-363 wide. Posterior testis 205-429 long by 279-363 wide. Cirrus-sac 906-1353 long by 74-139 wide. Ovary 214-233 long by 214-wide. Seminal receptacle 177 long by 242 wide. Uncollapsed eggs 63-73 long by 35-44 wide.

*Saturnius maurepasi* Overstreet, 1977  
(Bunocoylidae)  
Figs 3-4

Host: *Mugil liza* Valenciennes, 1836, common name “parati”, Mugilidae (new host record).

Site: Stomach.

Locality: "Praia de Copacabana", Rio de Janeiro State, Brazil.

Voucher specimens deposited: IOCHC no. 32.734 a-f

Measurements based on six specimens recovered from one out of 13 fish examined: Body 0.63-0.83 mm long by 0.12-0.15 mm wide. Forebody 205-261 long by 31 to 32% of body length. Hindbody 385-569 long. Oral sucker 32-35 long by 38-47 wide. Ventral sucker 40-68 long by 56-68 wide. Sucker width ratio 1:1.4-1.6. Pharynx 23-30 long by 23-33 wide. Esophagus 11 long. Anterior testis 28-35 long by 54-66 wide. Posterior testis 30-47 long by 52-82 wide. Cirrus-sac 26-33 long by 16-23 wide. Ovary 35-49 long by 52-80 wide. Vitellaria 49-90 long by 59-99 wide. Uncollapsed eggs 19-23 long by 12-14 wide.

#### REMARKS

Our specimens of *Macvicaria crassigula* (Linton, 1910) agree with those referred by Bartoli et al. (1989) from Corsica. They resemble the specimens reported from *Diplodus annularis*, mainly in the extension of the cirrus-sac, which is restricted to forebody; and the vitellaria agree with those recovered from *D. vulgaris*, *Pagellus erythrinus* and *Sparus pagrus*, with vitelline follicles very abundant and confluent anteriorly.

*Pachycreadium gastrocotylum* was originally described from Galapagos parasitizing *Calamus brachysomus* by Manter, 1940. Posteriorly was referred from Puerto Rico from *C. calamus* by Siddiqi & Cable (1960); in Argentina it was referred from *Micropogon opercularis* by Suriano (1966) and from *Pagrus pagrus* by Schulze (1970). Our specimens are similar to those reported anteriorly, with slightly larger

body, and in two specimens from *M. furnieri*, the cirrus-sac overpasses the posterior margin of ventral sucker, reaching the ovary.

*Saturnius maurepasi* Overstreet, 1977 was originally described from *Mugil cephalus* from Gulf of Mexico. Romero & Galeano (1981) referred it for the first time in South America also from *M. cephalus* from Colombia. The six specimens studied agree with those described by Overstreet (1977).

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