

**GORGORHYNCHUS TRACHINOTUS N.SP. AND NEW HOST RECORDS FOR  
DOLLFUSENTIS CHANDLERI GOLVAN, 1969  
(PALEACANTHOCEPHALA, ECHINORHYNCHOIDEA)**

DELY NORONHA\*, J. JULIO VICENTE\*, R. MAGALHÃES PINTO\* & SUELI P. DE FÁBIO\*\*

*Gorgorhynchus trachinotus recovered from the intestine of Trachinotus goodei Jordan & Evermann, 1896 is proposed as a new species and three new host records are reported for Dollfusentis chandleri Golvan, 1969.*

Key words: *G. trachinotus* n.sp. – new hosts – *D. chandleri*

Marine fish species of commercial importance have been captured off the coast of Rio de Janeiro, Brazil and were examined for the presence of acanthocephalans.

**MATERIAL AND METHODS**

Fifty fish specimens were examined. The ratio given in brackets refers to number of fishes examined/number of specimens infected: *Archosargus rhomboidalis* (Linné, 1758) [18/1]; *Eucinostomus argenteus* (Baird & Girard, 1854) [13/4]; *Haemulon sciurus* (Shaw, 1803) [4/2]; *Trachinotus goodei* Jordan & Evermann, 1896 [2/1]; *Umbrina coroides* (Cuvier, 1830) [13/4].

Acanthocephalans were collected in saline (0.85% NaCl), fixed in hot 10% formaldehyde solution and dehydrated. Parasites for whole mounts, were cleared in beechwood creosote or phenol solution and stained with Mayer's HCl carmine. Measurements are given in mm. Data in parenthesis refer to immature specimens.

**RESULTS**

*Gorgorhynchus trachinotus* n.sp.  
(Figs. 1-7)

Host: *Trachinotus goodei* Jordan & Evermann, 1896, Carangidae, "pampo galhudo".

Site of infection: intestine.

Locality: Cabo Frio (23°00'80"S, 42°15'37"W) Rio de Janeiro, Brazil.

Specimens deposited: Helm. Coll. of the Instituto Oswaldo Cruz nº 31.101 a-k.

Eleven specimens form the basis for the following description:

**Description:** Trunk elongate, slender. Proboscis cylindroid. Armature similar in both sexes: 14 longitudinal rows of 11-12 hooks, quincuxially arranged; all hooks rooted. Proboscis hooks: Dorsal anterior, 0.023-0.042 (0.026-0.043); ventral anterior, 0.043-0.046 (0.037-0.046); median, 0.029-0.031 (0.029-0.032); dorsal posterior, 0.017-0.023 (0.014-0.029); ventral posterior, 0.023-0.029 (0.026-0.029); basal, 0.029-0.034 (0.026-0.057). Neck unarmed. Trunk spines present, 0.021-0.050. Proboscis sheath double walled at base of proboscis. Lemnisci longer than proboscis sheath, flat, bound to body wall by ligaments.

Male (Figs. 4-7) (one mature and four immature specimens): 8.73 (4.29-5.85) long, 0.94 (0.39) greatest width. Proboscis 1.00 (0.54-1.00) long, 0.20 (0.13-0.16) wide. Neck 0.15 (0.11-0.16) long, 0.28 (0.18-0.28) greatest width at base. Proboscis receptacle 1.22 (0.67-1.15) long, 0.13 (0.17-0.18) wide. Lemnisci 1.22 (0.97-1.07) long. Testis round to oval, tandem. Anterior testis 0.64 (0.18-0.33) long, 0.51 (0.15-0.20) wide; posterior testis 0.72 (0.18-0.29) long, 0.46 (0.13-0.19) wide. Four tubular cement glands.

Female (Figs. 1, 2, 3, 5, 6) (one mature and five immature specimens): 8.36 (3.64-4.48) long, 0.98 (0.49) greatest width. Proboscis (0.43-0.44) long, (0.19-0.20) wide. Neck (0.11-0.17)

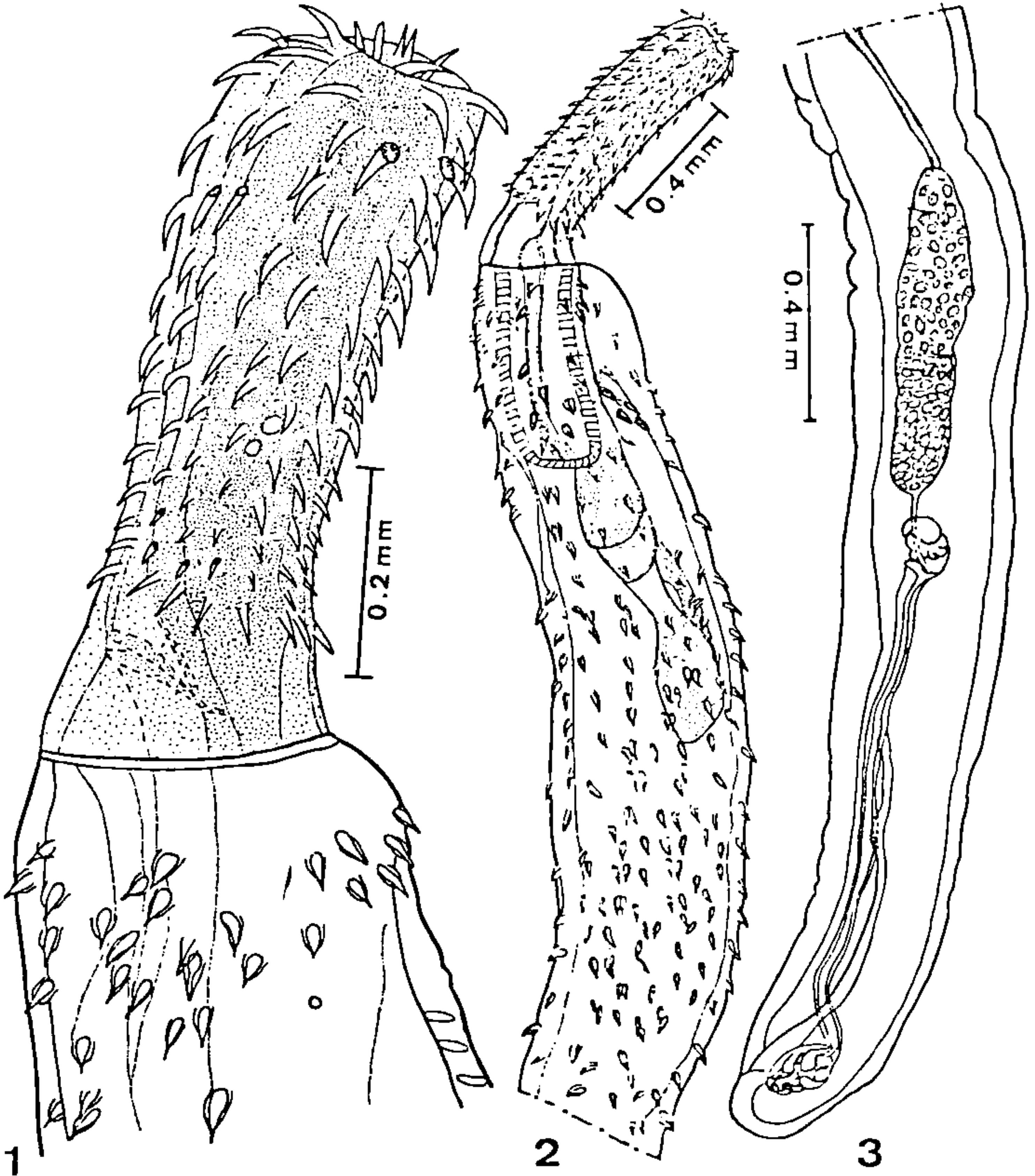
Supported in part by the Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq).

\*Instituto Oswaldo Cruz, Departamento de Helminologia, Caixa Postal 926, 20001 Rio de Janeiro, RJ, Brasil.

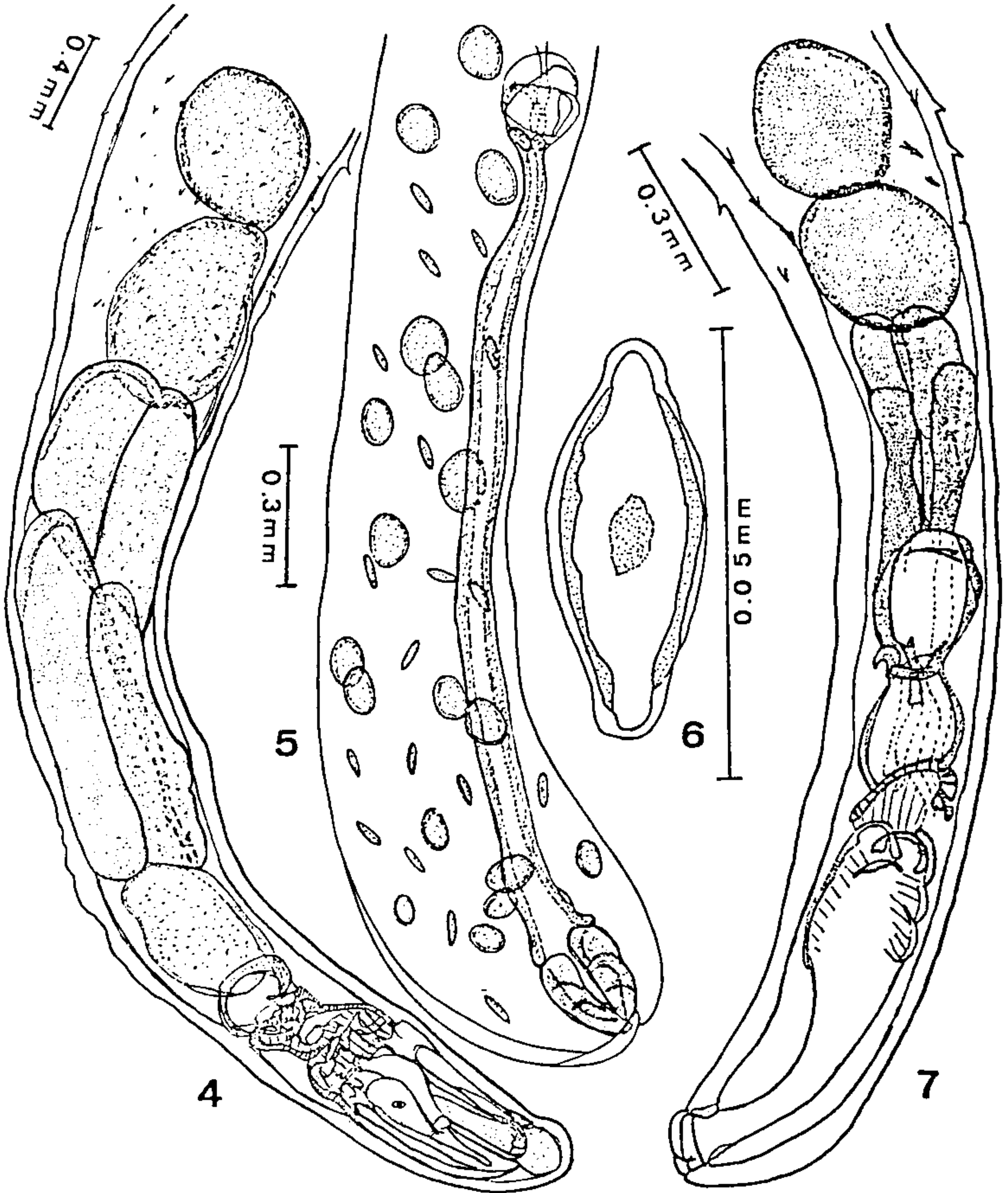
\*\*Departamento de Biologia Animal, Instituto de Biologia, Universidade Federal Rural do Rio de Janeiro (UFRRJ).

Received for publication August 20th and accepted October 4th, 1985.

long, (0.13-0.23) greatest width at base. Proboscis receptacle (0.67-0.92) long. Lemnisci (0.92-1.15) long. Ovijector 3.076 long. Uterus 1.80 (0.92-1.10) long. Vagina 0.21 (0.09-0.14) long. Vulva subterminal (0.12) from posterior end. Uterine bell reduced, 0.36 long. Eggs elongate, symmetrical, with polar swelling of middle membrane,  $0.025-0.039 \times 0.018$ .



*Gorgorhynchus trachinotus*. Fig. 1: proboscis of immature female, dorsal view, n<sup>o</sup> 31.101-d. Fig. 2: anterior region of immature female, ventral view, n<sup>o</sup> 31.101-c. Fig. 3: posterior region of immature female, lateral view, n<sup>o</sup> 31.101-c.



*Gorgorhynchus trachinotus*. Fig. 4: posterior region of adult male, lateral view, n<sup>o</sup> 31.101-b. Fig. 5: posterior region of adult female, lateral view, n<sup>o</sup> 31.101-a. Fig. 6: egg, total, n<sup>o</sup> 31.101-a. Fig. 7: posterior region of immature male, lateral view, n<sup>o</sup> 31.101-g.

#### DISCUSSION

*Gorgorhynchus trachinotus* n.sp. can be easily excluded from all the species reported for the genus by considering the smaller dimensions of the hooks of the proboscis. The number and arrangement of hooks in the new species 14 rows of 11-12 hooks is most similar to *G. epinephelis* (Yamaguti, 1939) Golvan, 1960 and *G. robertodolfusi* Golvan, 1956, the former with 16 rows of 12-13 hooks and the latter with 18 rows of 18-19 hooks. In addition, in the remaining species of the genus, the number of rows varies between 20 to 24.



*Dollfusentis chandleri* Golvan, 1969

Hosts: *Archosargus rhomboidalis* (Linné, 1758), Sparidae, "canhanha"\*.

Specimens deposited: Helm. Coll. of the Instituto Oswaldo Cruz nº 32.204 a-b.

*Eucinostomus argenteus* (Baird & Girard, 1854), Gerridae, "carapicu"\*.

Specimens deposited: Helm. Coll. of the Instituto Oswaldo Cruz  
nº 32.195 a-b, 32.196 a-b, 32.197 a-c, 32.201 a-b,  
32.202 a-b, 32.203.

*Haemulon sciurus* (Shaw, 1803), Pomadasyidae, "cocoroca".

Specimens deposited: Helm. Coll. of the Instituto Oswaldo Cruz nº 32.199 a-b.

*Umbrina coroides* (Cuvier, 1830), Sciaenidae, "riscado"\*.

Specimens deposited: Helm. Coll. of the Instituto Oswaldo Cruz nº 32.194, 32.198, 32.200 a-f.  
Site of infection: intestine.

Locality: Araruama (22°52'23"S, 42°20'20"W) Rio de Janeiro, Brazil.

**Remarks:** This species was reported for the first time in Brazil, from *Haemulon sciurus* captured in Guanabara Bay, Rio de Janeiro (Kohn & Macedo, 1984). Three new host records for *D. chandleri* are listed above (\*) and its occurrence in *H. sciurus* is ratified. Measurements of structures based on specimens recovered from the four different hosts are shown to be quite uniform when compared among themselves.

## RESUMO

*Gorgorhynchus trachinotus* coletada em intestino de *Trachinotus goodei* Jordan & Evermann, 1896 é proposta como uma espécie nova, e para *Dollfusentis chandleri* Golvan, 1969 são assinalados três novos hospedeiros.

## REFERENCES

- GOLVAN, Y.J., 1956. Une espèce et une variété nouvelles d'Acanthocéphales parasites de poissons de mer des côtés du Sénégal et redescription de *Serrasentis socialis* (Leidy, 1851) Van Cleave, 1924. *Ann. Parasitol. Hum. Compar.*, 31 (3) :225-239.
- GOLVAN, Y.J., 1960. Le Phylum des Acanthocephala. Troisième note. La classe des Palcoacanthocephala (Meyer, 1931). *Ibid.*, 35 (1-2) :138-165.
- GOLVAN, Y.J., 1969. Systematique des Acanthocephales (Acanthocephala Rudolphi, 1801). L'Ordre des Paleacanthocephala Meyer, 1931. La super-famille des Echinorhynchoidea (Cobbold, 1876) Golvan et Houin, 1963. *Mem. Mus. Nat. Hist. Nat. Paris, sér. A. Zool.*, 57 :1-373.
- KOHN, A. & MACEDO, B., 1984. First record of *Aspicularis tetraptera* (Nitzsch, 1821) (Nematoda: Oxyuroidea) and *Dollfusentis chandleri* Golvan, 1969 (Acanthocephala: Illiosentidae) in *Haemulon sciurus* (Shaw, 1803) (Pisces: Pomadasyidae). *Ann. Parasitol. Hum. Comp.*, Paris, 59 (5) :477-482.
- YAMAGUTI, S., 1939. Studies on the helminth fauna of Japan. Part 24, Acanthocephala II. *Japanese J. Zool.*, 8 (3) :317-351.