

TRAVASSOSNEMA GEN. N. WITH THE DESCRIPTION OF *T. TRAVASSOSI*
SP. N. (DRACUNCULOIDEA, GUYANEMIDAE) PARASITE OF
ACESTRORHYNCHUS LACUSTRIS REINHARDT, 1874 (CHARACIDAE) FROM
TRÊS MARIAS RESERVOIR, MG, BRAZIL

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A new genus, *Travassosnema* (*Guyanemidae*, *Dracunculoidea*) is proposed to include filariid worms having esophagus divided into muscular and glandular parts, with esophageal appendix near junction with intestine; anus functional; vulva anterior, well developed and functional in mature females. *Travassosnema travassosi* sp. n., a parasite of *Acestrorhynchus lacustris* Reinhardt, 1874 from Três Marias Reservoir (São Francisco River) in the State of Minas Gerais, Brazil, is described. The generic and the specific names are a tribute to Brazilian parasitologist Lauro Travassos at his birth centenary.

Key words: *Travassosnema* – *Guyanemidae* – *Dracunculoidea* – *Nematoda* – *Acestrorhynchus*

Several filariid worms are known from Brazilian fishes. The first species described in Brazil is *Philometra senticosa* Baylis, 1927, a parasite of *Arapaima gigas* (Cuvier, 1817) from the Amazonas River. Travassos et al. (1928) described *P. maplestonei* from *Salminus hilarii* (Cuv. & Val.). *Philometra baylisi*, parasitizing *Pimelodus clarias* (L.) was described by Vaz & Pereira (1934). Other species known are: *P. amazonica* from *Callophysus macropterus* (Licht) and *Rumai rumai* from *Arapaima gigas* (Cuvier, 1817) by Travassos (1960); *P. (Aline-ma) alii* from *Pimelodus pati* Valenciennes and *Pirinampus* spp. by Rasheed (1963); and *P. fariaslimai* from Bagridae by Fortes (1981). *Philometra lateolabraxis* Yamaguti, 1963 was reported by Crisp & Klein (1973) as a parasite of *Haemulon plumieri* (Lacepède). Bührnheim (1976) reported *Philometra* spp. and Rego et al. (1983) reported *Philometra* spp. from *Pomatomus saltator* (L. 1766). These species listed above are included in *Philometroidea* by Vicente et al. (1985).

Guyanemidae (*Dracunculoidea*) was proposed by Petter (1975) from *Guyanema seriei* Petter,

1975, a parasite of *Hoplerythrinus unitaeniatus* (Spix) from the French Guyana. Petter & Dlouhy (1985), studying nematode parasites of Paraguayan fishes, described *Guyanema seriei paraguayensis* from *Hoplerythrinus unitaeniatus* (Spix) and *G. baudii* from *Hoplias malabaricus* (Bloch).

MATERIALS AND METHODS

Thirty four necropsies were performed on *Acestrorhynchus lacustris* Reinhardt, 1874. The collected nematodes were preserved in Railliet and Henry liquid. Nematodes clarification was done using Aman's lactophenol.

Ten males and ten females were used in this study. Measurements are in micrometers unless otherwise specified; the average is given followed by the range in parenthesis.

RESULTS

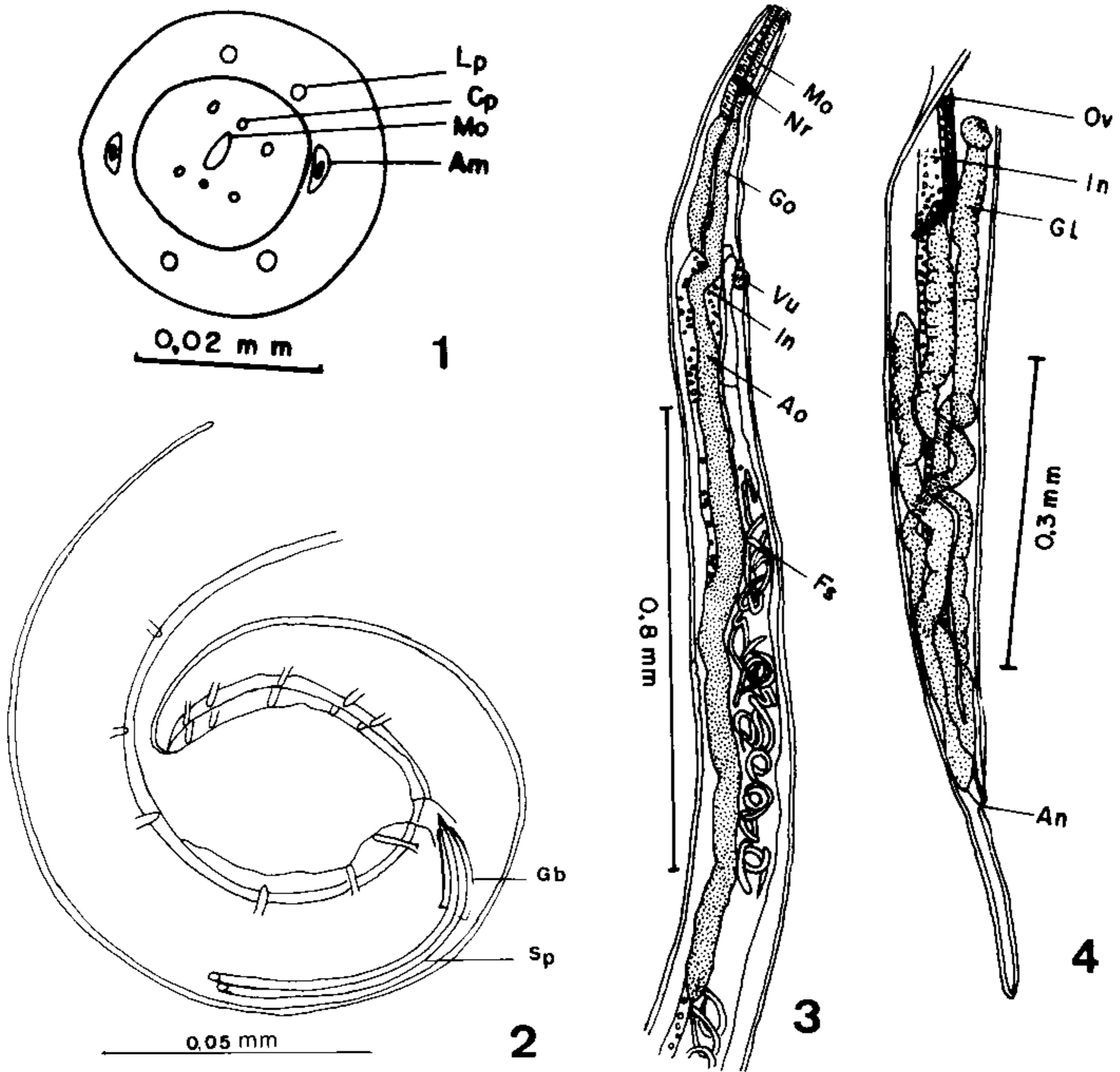
Travassosnema gen. n.

Diagnosis: buccal capsule absent. Esophagus divided into muscular and glandular parts, the last one with free posterior appendix near junction with intestine. Anus functional. Vulva anterior, well developed in mature female; monodelphic. Lateral alae well developed in male. Parasites of fishes.

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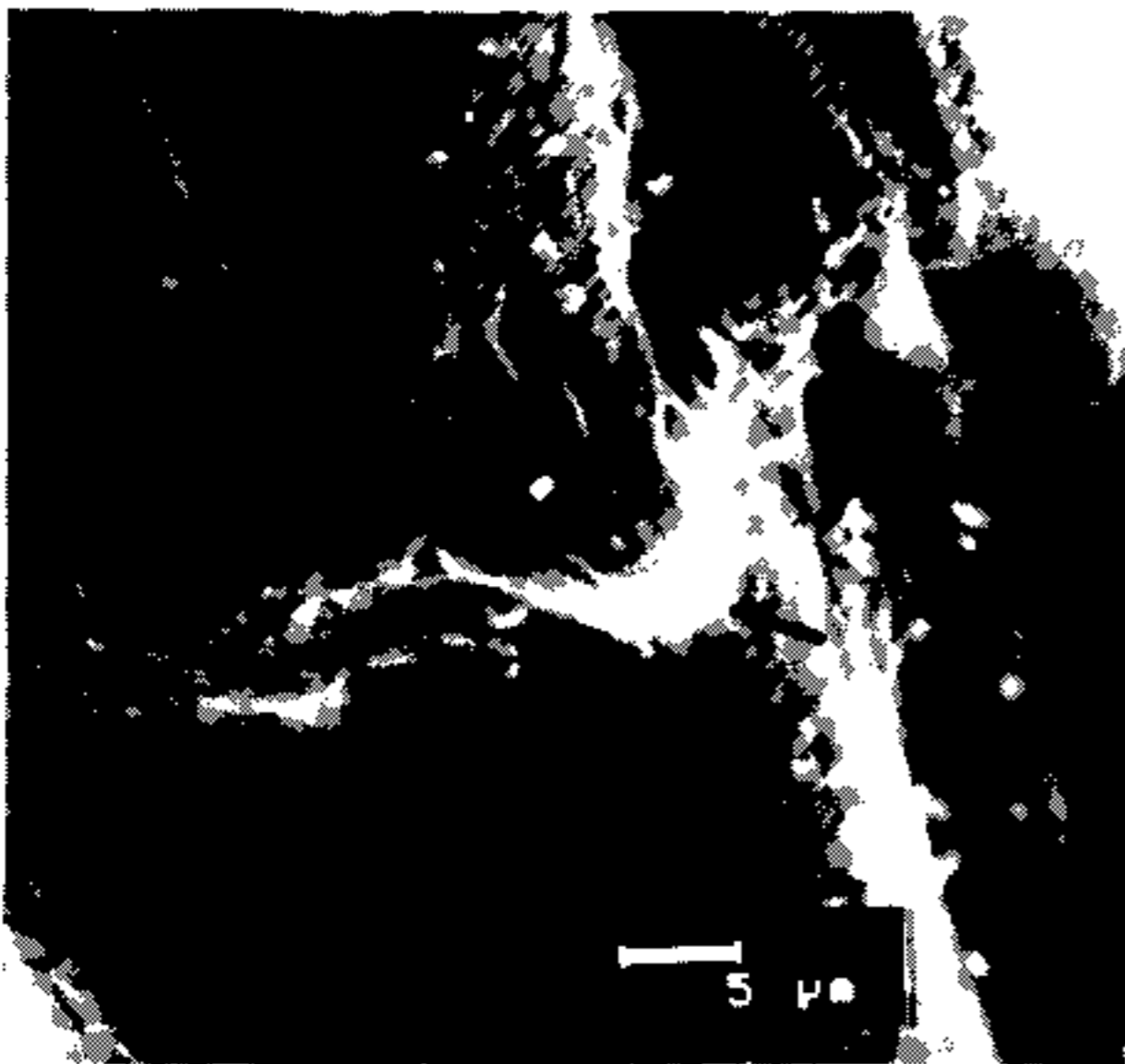
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Travassosnema travassosi gen. n. sp. n. — Fig. 1: frontal view of the cephalic end: Am = amphids, Cp = circumoral papillae; Lp = lateral papillae; Mo = mouth. Fig. 2: male tail: Gb = gubernaculum, Sp = spicules. Fig. 3: female: Ao = esophageal appendix, Fs = first stage larva, Go = glandular esophagus, In = intestine, Mo = muscular esophagus, Nr = nerve ring, Vu = vulva. Fig. 4: female tail: An = anus, Gl = anal gland, In = intestine, Ov = ovary.

Type species: *T. travassosi* sp. n.

Travassosnema travassosi sp. n.
(Figs 1-5)



Travassosnema travassosi gen. n. sp. n. — Fig. 5: cervical papillae (SEM).

Description (based on 10 males, 10 females): body slender; females longer than males; mouth oval without lips; six circumoral papillae, two amphids, four lateral papillae (Fig. 1). Pharynx absent; muscular esophagus usually shorter than glandular one; glandular esophagus with long appendix (Fig. 3). Cervical papillae (Fig. 5) and excretory pore not observed under optical microscope observation.

Males: body 2.25 mm (2.04-2.44) long and 39 (33-49) wide. Muscular esophagus 120 (86-140) long; glandular esophagus 151 (146-160) long; esophageal appendix 711 (532-785) long. Posterior body extremity spirally coiled, with lateral alae and pedunculated papillae: five to six pairs of precloacals, five pairs of postcloacals papillae. Spicules slender, similar, 55 (50-60) long. Gubernaculum 16 (13-18) long. Tail with single rounded tip (Fig. 2).

Females: body 11.02 mm (7.53-13.82) long, 193 (136-244) wide. Muscular esophagus 203 (136-244) long, glandular esophagus 234 (192-277) long. Esophageal appendix 1.273 (1.002-1.662) long. Nerve ring at 141 (106-181) from anterior extremity. Vulva situated near end of glandular esophagus, 478 (329-612) from anterior extremity (Fig. 3). Monodelphic. Single ovary 723 (465-921) long, located at last third of body; oviduct 129 (081-227) long. Vagina short, 29 (20-36) long. Ovejector 293 (273-306) long. Tail pointed, 219 (184-249) long. Three elongate glands extending from rectum to near ovary (Fig. 4). First stage larva in uterus 165 (133-199) long, 9 wide.

Type host: *Acestrorhynchus lacustris* Reinhardt, 1874

Site of infection: tissues behind the eyes.

Type locality: Três Marias Reservoir (São Francisco River), in the State of Minas Gerais, Brazil.

Specimens deposited: Helm. Coll. of the Instituto Oswaldo Cruz.

Etimology: the generic and the specific names are a tribute to the Brazilian parasitologist Lauro Travassos at his birth centenary.

DISCUSSION

The known filariid species parasite of fishes in Brazil are included in the family Philometridae. This family differs from Guyanemidae by having vulva equatorial, post-equatorial or absent in mature females, caudal alae feebly developed or absent in males, and glandular part of the esophagus inconspicuous or absent.

In *Travassosnema travassosi* sp. n. the vulva is anterior and functional in mature females, the alae of male is well developed and the glandular esophagus is distinct as in Guyanemidae. *Travassosnema* gen. n. is characterized by species with appendix on the glandular parts of the esophagus, being easily distinguishable from *Guyanema*.

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