

ON *MACHADOSENTIS TRAVASSOSI* N. G., N. SP. (EOACANTHOCEPHALA: QUADRIGYRIDAE) PARASITE OF A MORAY *GYMNOTHORAX OCELLATUS* IN BRAZIL

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*Machadosentis travassosi* n. g., n. sp. an acanthocephalan parasite of a moray are proposed after comparison with the related genera in *Quadrigyridae* Van Cleave, 1920. The new genus differs from the other related by the arrangement of proboscis hooks (five circles of rows with five hooks each, with well developed roots) besides the distribution of cuticular spines.

Key words: Acanthocephala – *Machadosentis* gen. n. – *Gymnothorax ocellatus* – moray – Brazil

Acanthocephalans from Brazilian marine fishes have been poorly investigated. The finding of specimens parasitizing an ocellated moray captured off the coast in the State of Bahia represents the first report of the class occurring in a *Muraenidae* host in Brazil.

MATERIALS AND METHODS

The material was received from Universidade Federal da Bahia as whole mounts in Canada Balsam and after study, deposited at the Instituto Oswaldo Cruz Helminthological Collection (CHIOC). Drawings were made with the aid of camera lucida. Measurements are in micrometers, unless otherwise indicated.

RESULTS

*Machadosentis* n. gen.

Diagnosis – *Quadrigyridae*, *Quadrigyriinae*. Body small, elongated. Proboscis small, subglobular to cylindrical with 5 circles of 5 hooks each with roots well developed. Proboscis receptacle single – layered, with ganglion near its base. Lemminisci cylindrical to claviform longer than proboscis receptacle. Trunk spines in complete circular rows covering both faces with 15 rows of 11 spines each. Only the tips of the spines are free. Testes rounded and located in middle region. Cement gland syncytial. Cement reservoir present, rounded. Parasites of marine fishes.

Type species: *Machadosentis travassosi* sp. n.

Host: *Gymnothorax ocellatus* Agassiz, 1828 – *Muraenidae*

Common name: "mutuca"

Site: Intestine

Type material: 32742 a-c

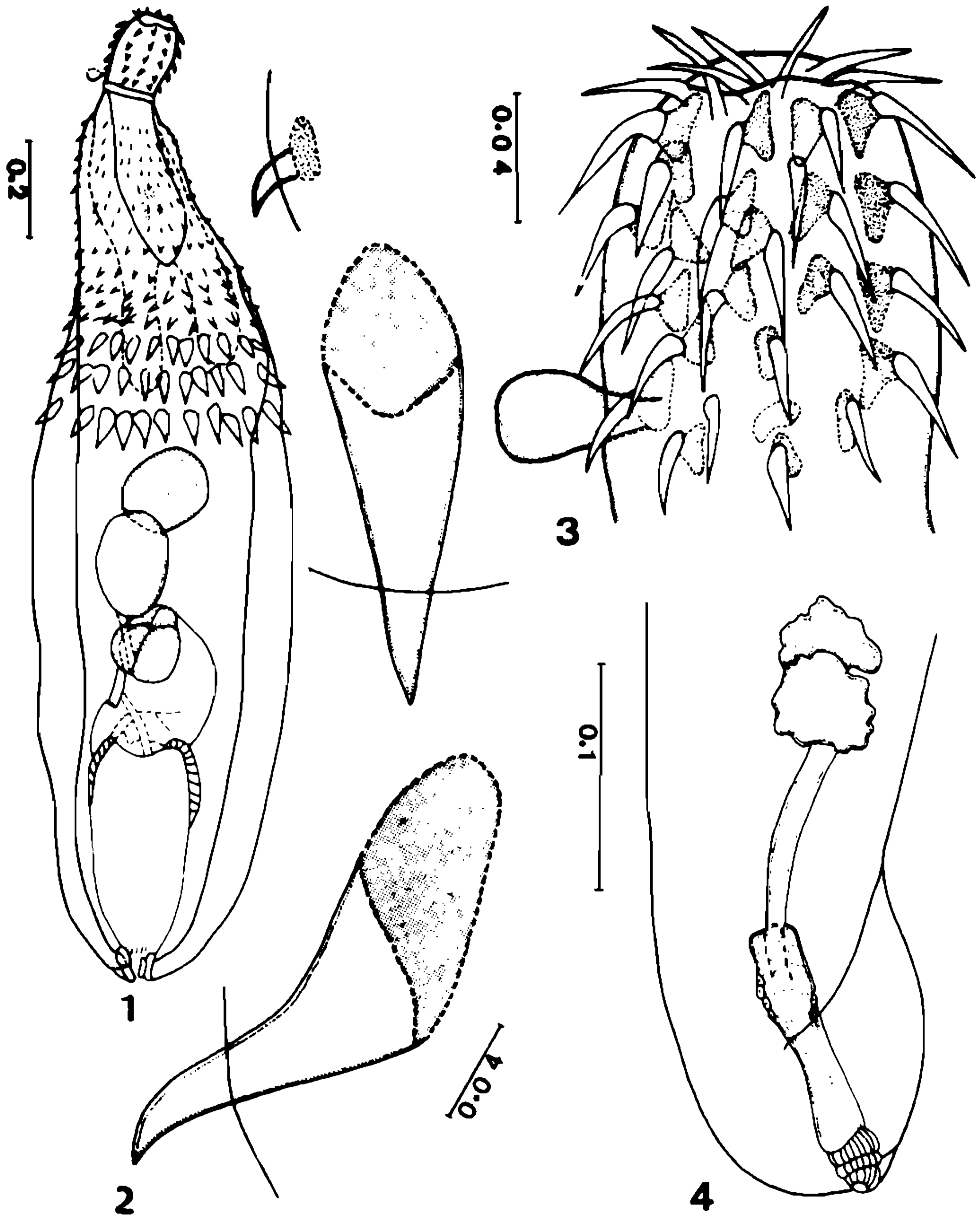
*Machadosentis travassosi* n. gen., n. sp.  
(Figs 1-4)

Measurements based on two immature males and one immature female.

Length males: 3.15 – 3.20 mm; Female: 2.55 mm

Width males: 200 – 240; Female: 210

Body small, elongated. Proboscis small, subglobular to cylindrical with 270-280 in length and 150-200 in width. It is armed with 25 hooks in 5 circles of 5 hooks each. Anterior hooks are 68-72 in length. Medium hooks are 46-54 and basal hooks 34-43. Roots well developed. Proboscis receptacle inserted in the base of proboscis; it is cylindrical and sack-like, 43-57 in length and 20 wide. The ganglion is in the posterior part of proboscis. Trunk spines located in the anterior region with 15 complete circles, recovering both faces, with 11 spines each. The three last rows are very outstanding, reaching the mid-region. All the spines have the tips free. The anterior spines are 14-36 in length, medium spines 54 and the three last rows 72-90. Lemminisci cylindrical to claviform 1.15-1.19 mm long. Males: testes oval, contiguous located in middle region. The



*Machadosentis travassosi* n. gen., n. sp. — Fig. 1: male total, ventral view. Fig. 2: cuticular spines in detail. Fig. 3: male, proboscis, ventral view. Fig. 4: female posterior portion, partial lateral view.

anterior testis is 300-330 in length by 230-280 wide. The posterior testis is 280 in diameter. Cement gland syncytial 390-430 long by 330 in width. Cement reservoir 420-450 long and 310 wide. Female: uterine bell 320 in length.

Uterus 380 and vagina 210 long. Vulva terminal.

The genus is named after Domingos Arthur Machado Filho, and the specific name after

Lauro Pereira Travassos, who greatly contributed to the knowledge of the phylum.

#### DISCUSSION

Van Cleave (1920) proposed the family Quadrigyridae, and the genus *Quadrigyrus* with the type species *Q. torquatus* to contain acanthocephalans recovered from freshwater fishes captured in Maracay, Venezuela. Diaz-Ungria & Gracia Rodrigo (1957) revising the family Quadrigyridae proposed the genus *Deltania* with its type species *D. scorzai* recovered from a Pimelodidae fish, in the Orinoco Delta, Venezuela. In 1958 the same authors substituted the name *Deltania* preoccupied for *Deltacanthus*. Amin (1985) reported to the two genera in Quadrigyrinae: *Quadrigyrus* Van Cleave, 1920 and *Deltacanthus* Diaz-Ungria & Gracia Rodrigo, 1958. This same author, in 1987, proposes a new key to the families and subfamilies of Acanthocephala, maintaining the referred family and subfamily in which the new genus is included.

*Machadosentis* n. g. differs from *Deltacanthus* mainly in the arrangement and number of proboscis hooks (five transverse rows with 5 hooks in each row, compared to 4 transverse rows with 4 hooks in the three first rows and 6 in the fourth in *Deltacanthus*) absence of a neck and arrangement of trunk spines with fifteen complete circles with 11 small spines each, the three last rows with very outstanding spines (Fig. 1), compared to the 8 incomplete uniform-sized circles observed in *Deltacanthus*.

The new genus differs from *Quadrigyrus* mainly in the size of cuticular spines, very small in the anterior region and increasing gradually in length and occupying both faces of the parasite in its anterior portion (Fig. 1) compared to uniform-sized spines distributed only in the ventral face of specimens in *Quadrigyrus*.

*Machadosentis* n. g. also differs from both related genera by the subglobular to cylindrical shape of proboscis, compared to the globular type observed in *Quadrigyrus* and *Deltacanthus*.

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