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REDESCRIPTION OF *ONCOPHORA MELANOCEPHALA* (RUDOLPHI, 1819) BAUDIN-LAURENCIN, 1971 (NEMATODA, CAMALLANIDAE)

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Oncophora melanocephala, *a camallanid nematode from the small intestine of* Priacanthus arenatus *Cuvier, 1829 is redescribed from the Coast of Rio de Janeiro State, Brazil and this occurrence represents a new host record for the species.*

Key words: *Oncophora melanocephala* – nematode – *Priacanthus arenatus* – fish – Brazil

The helminth fauna recovered from edible marine fishes captured off the Brazilian Coast, has been continuously studied, aiming the identification of parasites harboured by these hosts. In order to add some data on the nematodes of fishes occurring in Brazil, a camallanid nematode, *Oncophora melanocephala,* is redescribed herein, in a new host, *Priacanthus arenatus* and the present finding is the second report of this species in Brazil, since 1819.

MATERIAL AND METHODS

Specimens for whole mounts were cleared in creosote or phenol solution. One sample was mounted in glycerine-jelly and after study preserved in 50 parts each of 70º alcohol and pure glycerine and specimens were stained with alcoholic-acid carmine and some of them observed unstained. Figures were made with the aid of a drawing tube. Measurements are in millimeters.

RESULTS

Camallanidae Railliet & Henry, 1915

Oncophora melanocephala (Rudolphi, 1819) Baudin-Laurencin, 1971

Host: *Priacanthus arenatus* Cuvier, 1829 (Perciformes, Priacanthidae). Common named: "Olho-de cão".

Habitat: small intestine.

Locality: Cabo Frio (23º00'80"S, 42º15'37"W), Rio de Janeiro State, Brazil.

Specimens: Oswaldo Cruz Institute Helm. Coll. nº 32.331, 32.248-a-b, 32.249-a-b, 32.250, 32.251-a-b.

Four out of 17 fishes examined were infected (23.5%).

The following description is based on six males and one immature female.

General: Body elongated, tapering towards both extremities. Buccal capsule consists of two valves, marked internally by 40-46 interrupted longitudinal ridges in both sexes. The dorso ventral slit-like mouth opening extends posteriorly to nearly the top of a strong chitinous ring, present at junction of valves and oesophagus. A pair of trident structures, one dorsal and one ventral extend posteriorly, associated with buccal capsule. Oesophagus consisting of an anterior muscular portion and a posterior glandular portion. Cuticle thin, finelly striated in both sexes.

Male (Figs. 1-5): Body 14.62-18.70 long, maximum width 0.23-0.30. Valves of buccal capsule 0.12-0.14 long, 0.14-0.16 wide. Tridents well developed, 0.21-0.26 long. Chitinous ring 0.042-0.056 long, 0.091 wide. Anterior muscular portion of oesophagus 1.34-1.54 long. Posterior glandular oesophagus 1.19-1.40 long. Nerve ring at 0.29-0.33 and excretory pore 1.04-1.30 from anterior end. Caudal alae well developed extending up to tip of tail. There is a set of strong muscle fibres in the region of caudal alae. Fifteen pairs of pedunculated caudal papillae, with seven pairs preanal, two pairs adanal and six pairs postanal. Perianal glands very prominent. Anus 0.10-0.14 from posterior end. Right spicule broad at anterior end and narrow sharply pointed at posterior

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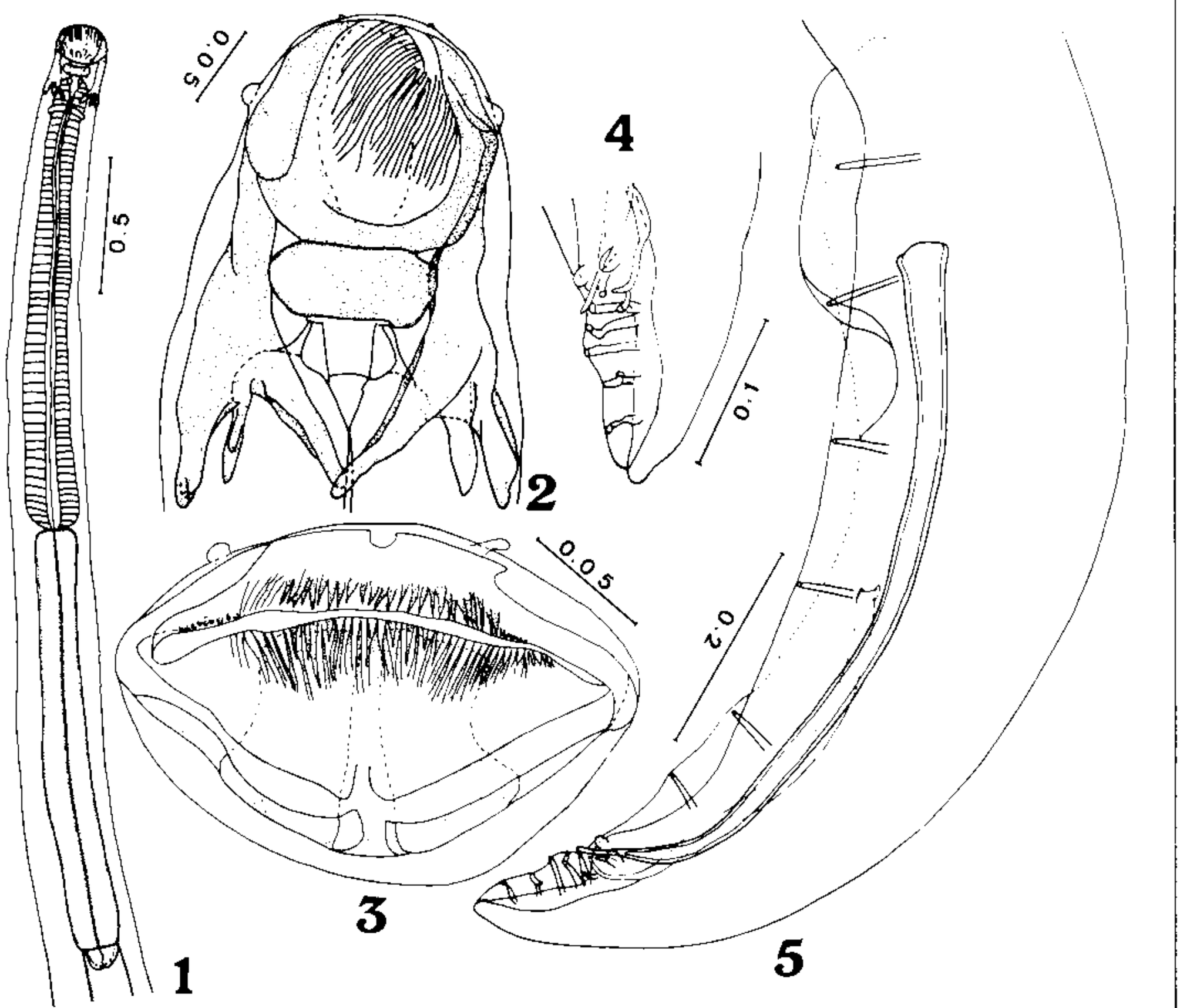
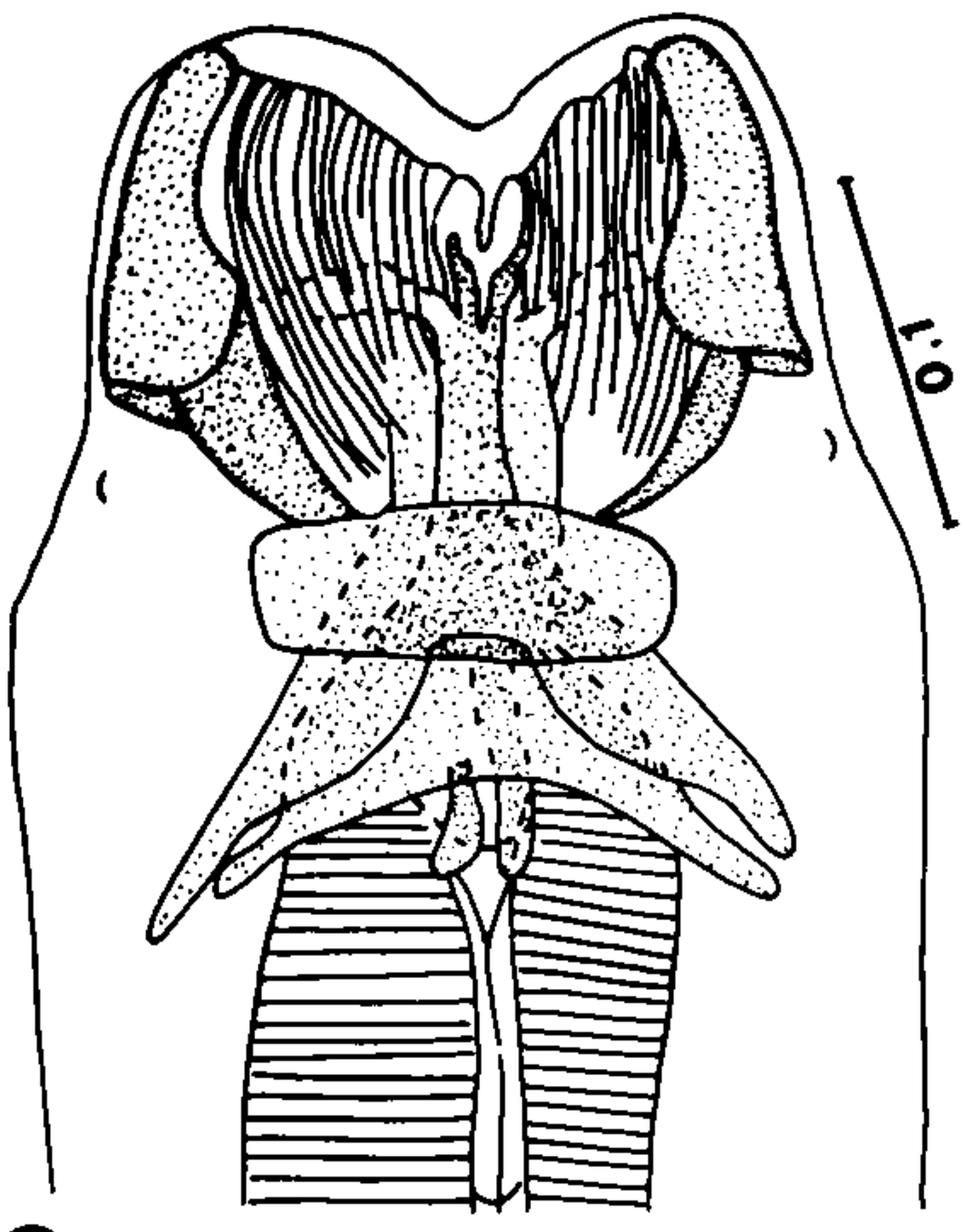
end, 0.70-0.77 long, left spicule slightly sclerotized, 0.54 long and hardly distinguishable in some specimens. Gubernaculum absent.

Female (Figs. 6-10): Body 23.29 long, maximum width 0.28. Valves of buccal capsule 0.13 long, 0.15 wide. Tridents well developed, 0.25 long. Chitinous ring 0.043 long, 0.093 wide. Anterior muscular portion of oesophagus 1.61 long. Posterior glandular oesophagus 1.47 long. Nerve ring at 0.43 and excretory pore 1.63 from anterior end. Vulva protuded, post-equatorial, with its opening surrounded by an elevated and strongly chitinized folding, characteristic of immature specimens, situated at 6.02 and anus at 0.29 from posterior extremity. Ovijector very long directed backwards. Uterus and ovary probably single.



Oncophora melanocephala. Fig. 1: anterior of male, lateral view (IOC Helm. Coll. 32.250). Fig. 2: cephalic extremity of male, latero-ventral view (IOC Helm. Coll. 32.248a). Fig. 3: partial "en face" view of male (IOC Helm. Coll. 32.249b). Fig. 4: posterior end of male, lateral view (IOC Helm. Coll. 32.331 – wet material). Fig. 5: posterior of male, lateral view (IOC Helm. Coll. 32.331 wet material).



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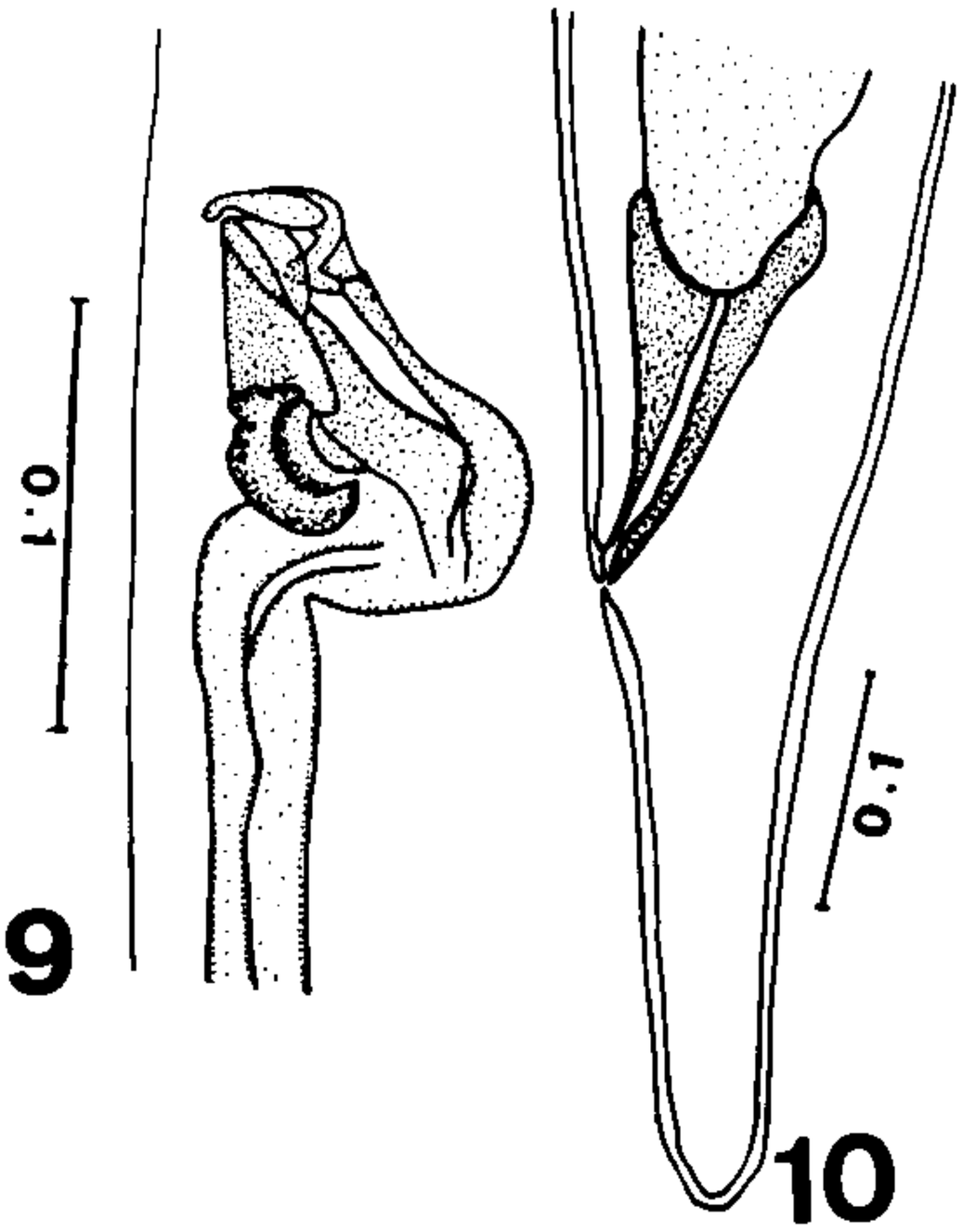

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Oncophora melanocephala. Fig. 6: cephalic extremity of female, ventral view (IOC Helm. Coll. 32.248b). Fig. 7: anterior of female, ventral view, 250x (IOC Helm. Coll. 32.248b). Fig. 8: vulvar region, lateral view, 400x (IOC Helm. Coll. 32.248b). Fig. 9: vulvar region, lateral view (IOC Helm. Coll. 32.248b). Fig. 10: posterior of female, lateral view (IOC Helm. Coll. 32.248b).

DISCUSSION

This is the second report on the occurrence of *O. melanocephala* in a Brazilian host, since its original description by Rudolphi (1819), as *Cucullanus melanocephalus* (= *Trichocephalus gibbosus* Rudolphi, 1819) on the basis of immature male specimens recovered from various Mediterranean Scombridae and from *Thynnus vulgaris (= Thunnus thynnus)* autopsied by Natterer and Pohl in Brazil. Rudolphi referred to the presence of two short, although inconspicuous, spicules in males of *C. melanocephalus*. Diesing (1851) described *O. neglecta (= O. melanocephala)* from *Thynnus vulgaris* captured in Ecuador. The brief description was based on two posterior portions of females. Tornquist (1931), based on males, redescribed the species as *Camallanus melanocephalus*, from *Thunnus thynnus*, captured in the Belgian Coast and Bay of Naples and referred to the presence of two subequal spicules. On providing data on their length dimentions, the author, however, affirms that these structures are rather inconspicuous. Tornquist probably misinterpreted the limits of the proximal end in the left spicule, which is well defined in four out of six males presently studied. Baudin-Laurencin (1971) redescribed and reported mature and immature females of *O. melanocephala* in Gulf of Guinea, from *Neothunnus albacares*, as well as designed as *O. albacarensis* Baundin-Laurencin, 1972, a single male specimen of a camallanid nematode recovered from *Thunnus albacares*, in which only a single spicule was observed. However, on proposing it, the author affirms that ". . . Le terme tomberait en synonymie avec *Oncophora melanocephala* s'il s'avérait que les parasites mâles hébergés par *Thunnus thynnus* ne présentaient, en fait, qu'un seul spicule. . ." (Baudin-Laurencin, 1972). In fact, male specimens of *O. melanocephala* recovered from *Priacanthus arenatus*, are identical to the type of *O. albacarensis*, except for the presence of two spicules and one additional pair of caudal pappilae in the former. Considering the difficult observation of the left spicule, it would be advisible to presume that Baudin-Laurencin may have overlooked this structure in the single male specimen of *O. albacarensis*. On the other hand, the now studied females of *O. melanocephala*, can be undoubtelly identified to the female worms restudied by Baudin-Laurencin in 1971.

The above mentioned concepts, clearly suggest that *O. melanocephala* must be regarded, up to this date, as the only valid representative of *Oncophora* Diesing, 1851 (= *Piscilania* Yeh, 1960), and of uncommon occurrence, despite its overspreading geographical distribution.

It is also interesting to mention that, for the first time, a male and a female of *O. melanocephala*, were recovered together, from a same necropsy.

Regarding the generic identification, one must be aware that, according to the key proposed by Petter (1979) to the genera under Camallaninae, one of the main differential characters for *Oncophora* Diesing, 1851, is based on adult female worms only. Immature specimens of *O. melanocephala* do not present the well defined blunt body enlargement in the posterior region, but, on the other hand, possess outstanding chitinous formations around the vulvar aperture (Figs. 8-9) that are greatly reduced in the adult female. It is also interesting to point out, the adequacy of the specific name, for in fact, the intense pigmentation of the cephalic structures, namely the buccal capsule, chitinous ring and associated tridents, is detected at first glance in alive or preserved specimens of both sexes (Fig. 7).

With this redescription, *O. melanocephala* should be included among the Brazilian nematode species from fishes, listed by Vicent et al. (1985).

RESUMO

Redescrição de *Oncophora melanocephala* (Rudolphi, 1819) Baudin-Laurencin, 1971 (Nematoda, Camallanidae) – *Oncophora melanocephala*, um nematóide camalanídeo de intestino delgado de *Priacanthus arenatus* Cuvier, 1829, é redescrito da Costa do Estado do Rio de Janeiro, Brasil, e esta ocorrência representa um novo hospedeiro para a espécie.

Palavras-chave: *Oncophora melanocephala* – nematóide – *Priacanthus arenatus* – peixe – Brasil

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