

DESCRIPTION OF *CRIBOMAZOCRAES TRAVASSOSI* N. SP. (MONOGENEA: MAZOCRAEIDAE), A FISH PARASITE FROM THE ATLANTIC OCEAN

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Cribomazocraes travassosi n. sp. is described from *Harengula clupeiola* (Cuvier, 1829) from Rio de Janeiro coast, Brazil. It differs from *C. bychowskyi* Mamaev, 1981 and from *C. nagibinae* Mamaev, 1981 in the size and shape of opisthaptor and lappet and in the smaller size of anchors. From *C. bychowskyi* it also differs in the extension of vittellaria. A key for the species of the genus is presented.

Key-words: *Cribomazocraes travassosi* n. sp. – *Harengula clupeiola* – Monogenea – fish parasites – Brazil

The genus *Cribomazocraes* Mamaev, 1981 is represented by only two species: *C. nagibinae* Mamaev, 1981 and *C. bychowskyi* Mamaev, 1981 described from Clupeid fishes from Pacific Ocean collected in the New Zealand and Yellow Sea respectively. *Cribomazocraes travassosi* n. sp. is now described from Rio de Janeiro coast, Brazil, from another Clupeid fish and the clamp sclerites are analyzed.

MATERIALS AND METHODS

The hosts were obtained from fishermen of "Ilha do Governador", coast of Rio de Janeiro, Atlantic Ocean. The branchial archs were separated and examined in saline medium under a stereoscopic dissecting microscope. The Monogenea were fixed in 5% formalin under slight cover slip pressure and stained in alcoholic chlorhydric carmine (Langeron, 1949), dehydrated through an alcohol series, cleared in beechwood creosote and mounted in Canada balsam.

Figures were made with the aid of a drawing tube. The measurements of the three specimens studied are given in microns in a comparative table. They were made with the use of a calibrated filar micrometer and the measurement of anchor length represents a straight line distance between extreme points. Sclerite

terminology follows that of Mamaev (1981) and Lebedev (1975).

Holotype and voucher specimens were deposited in the Helminthological Collection of the "Instituto Oswaldo Cruz" (CHIOC), Rio de Janeiro, Brazil.

RESULTS

Cribomazocraes travassosi n. sp.
(Figs 1-6, Table)

Host: *Harengula clupeiola* (Cuvier, 1829), common name "sardinha", Clupeidae.

Site: gills

Locality: Ilha do Governador, Rio de Janeiro, Brazil.

Material studied: three specimens from two fish.

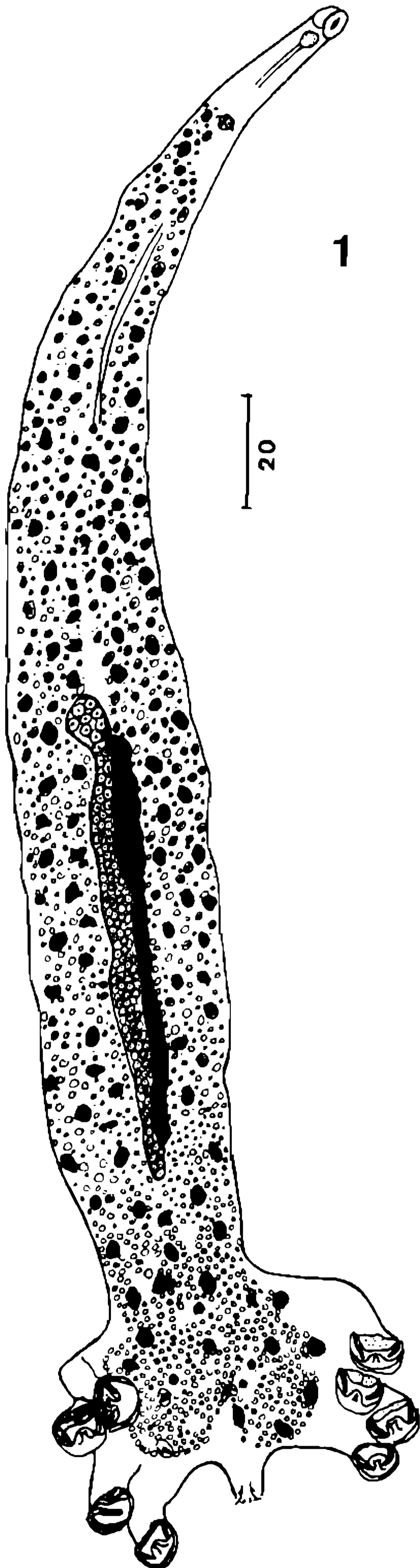
CHIOC: Holotype no. 32.758 and vouchers no. 32.759 A-B.

Etymology: this species is named after Dr Lauro Travassos that developed the helminthological studies in Brazil.

Buccal cavity subterminal opens ventrally and inside of it are the buccal organs (terminology after Rohde, 1979). Apical glands present with ducts extending laterally to pharynx. Intestine with lateral branches extending until the end of opisthaptor. The testis long

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Cribomazocraes travassosi n. sp. – Fig. 1: total Scale in micrometers.

and lobed, arranged in the posterior half of body was difficult to be measured. Genital corona mazocraeid type with a pair of lateral spines and two rows of five spines. A long ovary is arranged laterally to the testis. The vittellaria is well developed and extends until the end of opisthohaptor. Vagina and eggs were not observed.

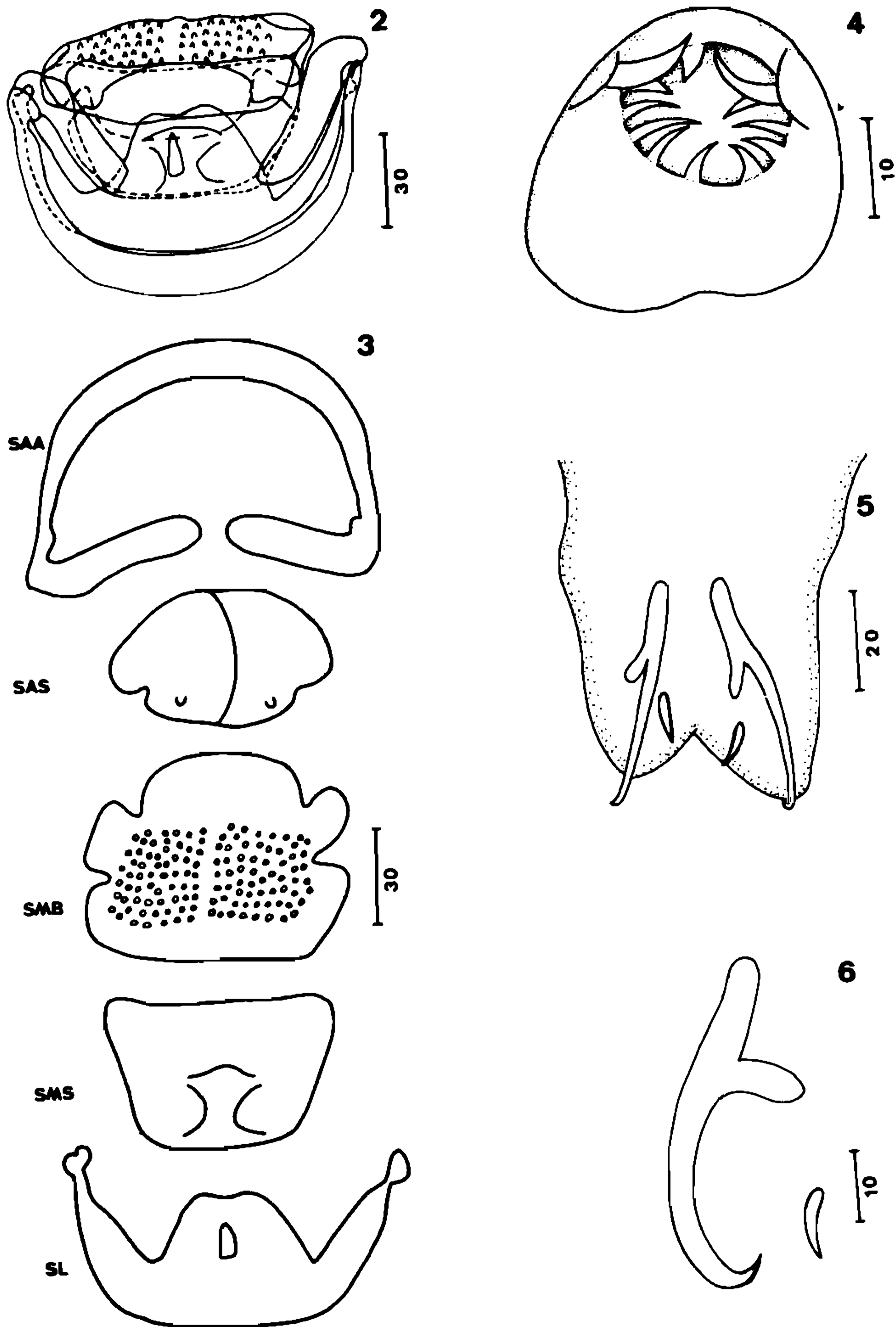
The opisthohaptor is short with four long peduncles that surpass twice the body width. The four pairs of clamps are slightly different in size. Skeleton of clamp with five sclerites: arcuatum anterius (SAA), antero-supplementarium (SAS), medio-basale (SMB), medio-supplementarium (SMS) and labiatum (SL). The arcuatum anterius has a processus axialis on both sides; the antero-supplementarium has deep lateral cuts and two small protuberances. The medio-basale has two groups of numerous cone like structures that projects from the scleritum. The medio-supplementarium is trapezoid shaped with a notch on the posterior edge. The labiatum has an aperture in its middle portion. The lappet is digitiform and has two different pairs of small anchors.

DISCUSSION

Mamaev (1981) described the genus *Cribomazocraes* with five sclerites in the clamp skeleton (SAA, SAS, SMB, SMS and SL) and the scleritum medio-basale with characteristic numerous apertures. In *C. travassosi* n. sp. these structures resemble small protuberances that project from the scleritum surface, although at first sight they also resemble a sieve. These protuberances seem not to be perforated as Mamaev (1981) described.

Cribomazocraes travassosi n. sp. resembles *C. nagibinae* Mamaev 1981 described from *Clupea antipodus* from New Zealand, in the position of vittellaria and in the slight decreasing size of clamps, but differs in the size and shape of opisthohaptor which is shorter with longer peduncles that surpass twice the body width and in the presence of a digitiform lappet well set off from the opisthohaptor proper; the anchors of the lappet have also a smaller size.

From *C. bychowskyi* Mamaev, 1981 described from *Harengula zunasi* from the Yellow Sea, *C. travassosi* n. sp. differs in the position of vitellaria that extends into the end of opisthohaptor, in the size and shape of



Cribomazocraes travassosi n. sp. — Fig. 2: total clamp. Fig. 3: clamp sclerites: SAA- arcuatum anterius; SAS- antero-supplementarium; SMB- medio-basale; SMS- medio-supplementarium; SL- labiatum. Fig. 4: genital pore. Fig. 5: lappet. Fig. 6: anchors. Scales in micrometers.

TABLE

Measurements of *Cribomazocraes travassosi* n. sp. in μm

| CHIOC no. | 32.758 | 32.759a | 32.759b |
|---------------------|-----------------|---------------|----------------|
| Body | 3.130 x 380 | 2.052 x 293 | 2.932 x 440 |
| Prohaptor suckers | 46 x 41 | 30 x 30 | 39 x 45 |
| Dist. genit. corona | 290 | 240 | 300 |
| Pharynx | 30 x 24 | 36 x 30 | 45 x 45 |
| Ovary | 858 | 450 | 880 |
| Testes | 733 | 384 | — |
| First clamp | 78-92 x 104-112 | 67-72 x 96 | 72 x 96 |
| Second clamp | 84-88 x 103-108 | 64-67 x 92-96 | 72-87 x 96-108 |
| Third clamp | 72-78 x 91-107 | 62-72 x 91-92 | 78-79 x 96-112 |
| Fourth clamp | 65-67 x 84 | 66-67 x 80-84 | 73-78 x 90-98 |
| Large anchor | 45 | 46 | 49 |
| Small anchor | 9 | 9 | — |
| Opisthohaptor | 440 x 535 | 366 x 660 | 513 x 733 |
| Genital corona | — | 30 x 30 | 30 x 30 |
| Large genit. spines | 6 | 9 | 7 |
| Small genit. spines | 4.5 | 4.5 | 6 |
| Lappet | 90 x 56 | 84 x 60 | 120 x — |

opisthohaptor and lappet and in the smaller size of anchors.

The description of *C. travassosi* n. sp. in Brazil represents the first record of this genus in the Atlantic Ocean.

KEY FOR THE SPECIES OF *CRIBOMAZOCRAES*
MAMAEV, 1981

1. Vitellaria do not enter the opisthohaptor..... *C. bychowskyi*
Vitellaria extends into the opisthohaptor. 2
2. Opisthohaptor wider than longer with long peduncles that surpass twice the body width; lappet digitiform.... *C. travassosi* n. sp.
Opisthohaptor longer than wider with short peduncles; lappet continuous to opisthohaptor..... *C. nagibinae*

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