DASYRHYNCHUS PACIFICUS ROBINSON, 1965 (TRYPANORHYNCHA: DASYRHYNCHIDAE) DESCRIPTION OF THE ADULT FORM

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One out of four specimens of sharks, Carcharhinus brachyurus (Günther, 1860), captured off the southern Brazilian Coast, harboured cestodes identified as Dasyrhynchus pacificus Robinson, 1965, of which the adult form is now described and referred as occurring in Brazil.

Key words: Dasyrhynchus pacificus – Trypanorhyncha – Dasyrhynchidae – adult form – Carcharhinus brachyurus – shark – Brazil

Cestodes from sharks, Carcharhinus brachyurus (Günther, 1860), captured off the southern Brazilian Coast, were collected by one of us (SCSC). Examination of adult specimens allowed their identification to the genus Dasyrhynchus Pintner, 1928. The only Brazilian species of this genus so far described, is Dasyrhynchus giganteus (Diesing, 1850), from Oligoplites sалиens (Bloch), based on the immature form.

The present work is the 1st report of Dasyrhynchus pacificus Robinson, 1965 in Brazil, and presents the first description of the adult form of this species.

MATERIAL AND METHODS

One of the four specimens of C. brachyurus captured off the southern Brazilian Coast (30°40'S-33°40'S, 53°20'W-50°40'W), was positive for cestodes. The material was fixed in alcohol-formalin-acetic acid (AFA), stained with Mayer's Carmalum, cleared with beechwood cresote and preserved in Canada balsam. The drawings were made with a drawing tube. All measurements are in millimeters, unless otherwise indicated. Ranges are in parentheses. Voucher specimens were deposited in the Helminthological Collection of the Instituto Oswaldo Cruz (CHIOC), Rio de Janeiro.

RESULTS

Dasyrhynchus pacificus Robinson, 1965 (Figs 1 to 6)

Host: Carcharhinus brachyurus (Günther, 1860).

Habitat: Spiral valve.

Locality: Southern Brazilian Coast.

Specimens deposited: CHIOC no. 32486a-b.

Description: (Based on two uncompressed adult specimens without the gravid proglottid): Scolex (Fig. 1) long, cylindrical, 6.46 (5.88-7.04) in length by 0.66 (0.59-0.73) wide. Maximum width at the bothridial region. Paras bothridials with two cordiform bothridia, presenting reversed extremities and a notch in the posterior region, 0.52 (0.51-0.53) long, by 0.66 (0.59-0.73) wide. Pars vaginalis with coiled tentacle sheets, 4.07 (3.66-4.48) long. Pars bulbosa long, 2.27 (2.10-2.44) in length, by 0.50 (0.49-0.51) wide, retractor muscle deeply inserted into the bulbar cavity. Tentacular armature poeciloacanthous. Basal region, external surface (Fig. 2) well defined, with an area covered with minute hooks 8 μm long. Basal region, internal surface (Fig. 3) with hooks of characteristic shape, there are two stout ones, each of them enlarged, in its somewhat irregular base, being the largest, 78 μm long. Posterior to these larger hooks there are two rows of narrow, smaller hooks 26-29 μm long. The "chainette" begins in the metabasal region (Fig. 4). The hooks are, at first, very small, 10 μm in

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length, but increase in size gradually and reach 23 \( \mu m \) in length. They have a large rectangular base and a sharp point turned abruptly over the base. Tentacles with 10 hooks in each semicircle in the main oblique rows (Fig. 5); hooks 1 and 1' stout, with large base (internal surface view), 68-78 \( \mu m \) long; hooks 2 and 2', with narrow base, 60-68 \( \mu m \) long; hooks 3 and 3', 47-52 \( \mu m \) long; hooks 4 and 4', 42-44 \( \mu m \) long; hooks 5 and 5', 27-34 \( \mu m \) long; hooks 6 and 6', 23-27 \( \mu m \) long; hooks 7 and 7', 21-27 \( \mu m \) long; hooks 8 and 8', 18-23 \( \mu m \) long; hooks 9 and 9', 16-21 \( \mu m \) long; hooks 10 and 10', 16-18 \( \mu m \) long. Among the rows of the main hooks, there is one row with five to six smaller and thinner hooks.

*Dasyrhynchus pacificus* Robinson, 1965 – Fig. 1: scolex. Fig. 2: basal region, external surface. Fig. 3: basal region, internal surface. Fig. 4: origin of the "chainette". Fig. 5: metabasal region showing the 10 hooks. Fig. 6: mature proglottid. (Figs. 2, 3, 4 and 5 in same scale).
Strobila: hiperapolytic, 51-100 long. Proglottids large than wide, at first, increasing gradually in length. Genital pores marginal, irregularly alternate postequatorial. Mature proglottid acrasete (Fig. 6) 1.69 in length by 1.25 wide. Testes numerous, more than 1.000, irregular in shape, scattered through the proglottid and separating ovary from posterior extremity border of segment. Cirrus pouch oval, 0.19 (0.14-0.24) long, by 0.15 (0.12-0.18) wide. Ovary located in the posterior third of the proglottid, with two wings-shaped lobes, 0.64 (0.59-0.69) in total length by 0.19 (0.17-0.21) wide. Ootype well defined, posterior to the ovary. Vagina ending in the genital atrium. Uterus tube-shaped, longitudinal, extending from the center, to the anterior extremity of the proglottid. Vitellaria disposed in lateral bands, extending along the entire proglottid length and exceeding the osmoregulatory canals to the lateral margin of each segment. Gravid proglottid was not observed.

REMARKS

The finding of species under Dasyrynchus Pintner, 1928 may be regarded as quite unusual, since previous reports of Trypanorhynch in Brazil, except for Diesing (1850, 1856), do not refer to Dasyrynchus (Carvalhal & Rego, 1983, 1985; Rego et al., 1974; Rego, 1977, 1987 and São Clemente, 1986).

The original description of D. pacificus by Robinson (1965) was based on a larval form recovered from Sciàena antarctica Castelnau, captured in McKenzie Bay, Australia. The specimens now examined have smaller scolex than the type material (Robinson, 1965). Examining plerocerci, Robinson presented 11.5 in length for the scolex, when compared to the present data, 5.88-7.04 and there is no indication on the way original measurements were accomplished, i.e., with or without appendix.

The only report on D. pacificus occurring in South America is that of Escalante & Carvalhal (1984), based on three larval specimens, parasitizing Sciàena delicosa (Tschudi, 1844) from Salaverry, Peru. The authors emphasized the presence of rows with 10 main and six intercalary hooks, between them, and a “chaineette” of special hooks on the external surface, characteristic of D. pacificus, which are identical to those of the specimens here studied. Even without the gravid proglottid this is the first description of the adult form of the species, and also a new geographical record.

RESUMO


Palavras-chave: Dasyrynchus pacificus — Trypanorhynchidae — forma adulta — Carcarhinus brachyurus — tubarão — Brasil

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REFERENCES


