

# A new cestode *Carpobothrium bombayensis* n.sp. (Cestoda - phyllobothridae) from *Carcharias acutus* at bombay (m.s.), india

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## Abstract

The present form deals with description of new species of genus *Carpobothrium bombayensis* n.sp. differs from *Carpobothrium megaphallam* [1] Subhapradha, 1955 and *Carpobothrium subhapradhi* [2] Deshmukh and Shinde, 1978 in many characters as in the size of the worms, presence or absence of loculi on the margin of flaps, number of testes, presence or absence of receptaculum seminis, position of uterus and position of ootype.

**Keywords:** Marine, Cestode, *Carpobothrium*.

## INTRODUCTION

The genus *Carpobothrium* was established by Shipley and Hornell [3] with its type species *Carpobothrium chilloscyllii* from *Chilloscyllium chilloscyllii* from *chilloscyllium indicum* in Ceylon. *Carpobothrium alli* in *dumalpetcha* (Eastcoast of India), A.P. Later on two more species are added to this genus by various workers in the world. The present form deals with description of new species *Carpobothrium bombayensis* n.sp.

## MATERIAL AND METHODS

Fifteen cestodes were collected from spiral valve of *Carcharias acutus*. All were flattened, preserved and fixed in 4% formalin, stained with Harri's haematoxyline, were passed through various alcoholic grades and whole mount slides were prepared for anatomical studies. Drawings were made with the help of camera lucida. All measurements are in millimeters.

## DESCRIPTION

The Scolex big, almost quadrangular, distinctly marked off from strobila, narrow anteriorly, broad posteriorly, 3.749-5.534 x 4.641-6.158; bothria 4, ending in flat area, with peduncle; peduncle short, wide, bothridia big, oval, elongated, 3.570-5.534 x 1.607-2.142; two flaps arise from distal extremity of each bothridium; each flap with entire margin; each bothridium hollow, opens by slit like opening, surrounded by flaps, with muscular pads, 1.607-7.231 x 0.357-0.535; muscular pads originates from flaps, 0.982 - 1.214 x 0.089-0.357; neck wide, curved, 'S' shaped in appearance, 2.410 - 3.481 x 0.624 - 1.107; mature segments broader than long, posterior segments longer than broad, 0.681 - 0.758 x 1.023 - 1.137;

testes numerous, medium, somewhat rounded, 190-200 (198), pre-ovarian, some are overlapping the ovary, almost in two lateral fields, upto anterior end of uterus, 5-7 rows on each lateral side, in single field, evenly distributed, in central medulla, 0.015; cirrus pouch large, oval, transversely and obliquely placed, opens marginally, 0.341-0.379 x 0.045-0.068; cirrus wide, coiled, contained within the cirrus pouch, 0.364 x 0.008-0.015; vas deferens thick, wide, runs towards anterior margin of the segments, coiled, extends anteriorly, 0.644 x 0.015-0.038; ovary distinctly bilobed, near the posterior margin of the segments, extends laterally upto the subcortical region of the segment, 0.910 x 0.060-0.174; ovarian lobes large, oval, compact, 0.060-0.174; vagina thin, long tube, starts from genital pore, placed anterior to the cirrus pouch, extends transversely, upto middle of segments, takes a posterior turn, runs in the middle of the segments, reaches and opens into ootype, 0.796 x 0.015-0.053; ootype medium, oval, situated on isthmus, 0.076 x 0.053-0.068; uterus saccular, extends upto anterior margin of segments, 0.530 x 0.091-0.152; genital atrium large, oval, cylindrical, elongated, obliquely placed, posterior to middle of segments, 0.152 - 0.205 x 0.060-0.76; genital pores small, oval, marginal, obliquely placed, posterior to middle of segments, irregularly alternate, 0.030 x 0.015, vitellaria granular, marginal, medium strips, through out proglottids and longitudinal excretory canals of medium width and 0.023-0.038 in size.

Type species - *Carpobothrium bombayensis* n.sp, Host - *Carcharias acutus*, Habitat - Spiral valve. Locality - Bombay, M.S. (West coast of India) India. Date of collection - 17th Dec., 1990.

## RESULTS AND DISCUSSION

The worm under discussion differs in vital characters from its type species *C. chilloscyllii* in length of worm (6x1.137 as against 10x0.40); loculi on margin of flaps (Absent as against present), in number of testes (190-200) (198) as against 100-150), in receptaculum seminis (Absent as against present); in position of uterus (saccular, almost upto anterior margin of segments as against extended anterior to cirrus pouch) also it differs from *C. megaphallum* [1], in size (6x1.137 as against 12x0.30); in bothrial flaps (in double as against single); in the number of testes (190-200) (198), in 5-6 rows, on each lateral side, about 50, do not extend posterior to cirrus pouch) in shape and

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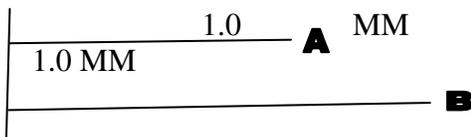
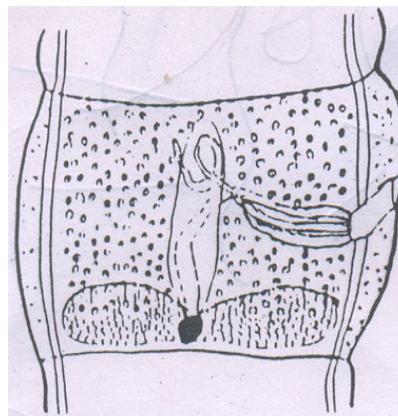
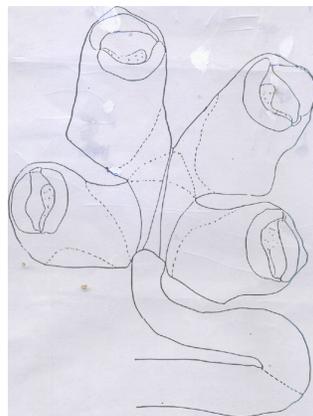
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position of uterus (saccular, extends almost upto anterior margin of segment as against not extends anterior to cirrus pouch); in position of ootype (placed in between limbs of ovary as against below the ovary); further differs from *C. subhapradhi* [2] in number of testes (190-200 (198), 5-6 rows on each lateral side as against 85, do not extends posterior to cirrus pouch), in position of uterus (extends almost upto anterior margin of the segments as against extends little anterior to cirrus pouch) and in position of ootype (between the limbs of ovary as against below the ovary). Scolex big quadrangular, narrow anteriorly, broad posteriorly 3.749-5.534\*4.641-6.158 bothria four penduncle short., wide, oval, elongated 3.570-5.534 \*1.607-2.142, muscular pads, 1.607-7.231\*0.357-0.535, muscular pads originate from flaps as against scolex thick muscular 3.017\*4.821, bothria four each ending in a conical flat aria which is attached by a short penduncle 1.982\*2.285. each bothrium is hollow opens by slit like opening anteriorly which is surrounded by two flap

without muscular pads. neck wide curved 's' shaped 2.410-3.481\*0.624-1.107 as against neck long wide 2.25\*0.446-0.785 testes numerous medium in size 190-200(198) preovarian, some are overlaping ovary almost in two lateral fields up to anterior end of the uterus, 5-7 rows on each lateral side in single field evenly distributed in central medulla 0.015 as against testes small in size 170-185, 5-6 rows on each lateral side of the uterus on the ovarian lobes in single field evenly distributed 0.022-0.037 dia. Cirrus pouch oval, transversly, /obliquely placed opens marginally 0.341-0.379\*0.045-0.068 as against cylindrical, extends medially up to 1/3 of segments 0.356-0.083-0.143. ovary distinctly bilobed, near the posteror margin of the segment extends laterally up to corticular region of the segment as against ovary in dinstictly placed.

As the above noted distinct characters are valid enough to erect a new species of the genus, hence the name *Carpobothrium bombayensis* n.sp. Is proposed after the locality.



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