

A report of a species of the genus *Acanthobothrium coronatum* (Eucestoda: Onchobothridae) from *Rhynchobatus djeddensis* from Bombay (M.S.), West coast of India, India

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Abstract

This paper deals with the redescription of a cestode from marine fishes in Maharashtra i.e. *Acanthobothrium coronatum* (Rudolphi, 1819) [1] Van Beneden, 1849 [2].

Keywords: *Acanthobothrium coronatum*, *Rhynchobatus djeddensis*, spiral valve, Bombay

INTRODUCTION

The genus *Acanthobothrium* is established by Van Beneden, 1899 [2] with its type species *A. coronatum*. Van Beneden, in 1899 [2] reported his worms from *dasybatus kuhli*, from Ceylon. Present worms are being reported from *Rhynchobatus djeddensis* at Bombay, M.S. (West coast of India), India.

MATERIALS AND METHODS

Eleven cestode parasites were collected from *Rhynchobatus djeddensis*. All were flattened, preserved in 4% formalin, stained with Harris haematoxyline, were passed through various alcoholic grades, 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 is distinctly marked off from the strobila, large in size, almost quadrangular in shape, bears four armed bothridia and measures 2.045 to 2.158 in length and 1.931 to 2.180 in breadth.

The bothridia are large in size, oval in shape elongated, sac-like, arranged in pairs, one on each lateral side of it. Each bothridium is having one accessory sucker, divided in to three loculi, by two transverse septa and measures 1.305 to 1.477 in length and 0.624 to 0.737 in breadth. The accessory suckers are large in size, oval in shape, one in front of each bothridium and measures 0.341 to 0.375 in length and 0.247 to 0.341 in breadth. Anterior loculus is broad and larger than the middle and posterior one. The big anterior loculus bears one pair of bifurcated hooks and measures 0.602 to 0.829 in length and 0.613 to 0.737 in breadth. The middle loculus is medium in size and measures 0.398 to 0.454 in length and 0.613 to 0.704 in

breadth. The posterior loculus is small in size, roughly oval in shape and measures 0.205 to 0.258 in length and 0.341 to 0.454 measures 0.242 to 0.329 in length and 0.121 to 0.156 in breadth. The outer prong is curved and shorter than inner prong and measures 0.147 to 0.216 in length and 0.049 to 0.055 in breadth on the outer prong a small, curved tubercle is present and measures 0.014 to 0.026 in length and 0.007 to 0.014 in breadth. The inner prong is longer, with oval tubercle, placed on near the inner margin and measures 0.202 to 0.218 in length and 0.035 to 0.071 in breadth. The tubercle measures 0.49 to 0.054 in length and 0.045 to 0.057 in breadth. The vesicle in the tubercle measures 0.038 to 0.043 in length and 0.019 to 0.026 in breadth. The perforations are small, round, placed on the handle, 7 in number, inside the handle and measures 0.003 in diameter. The scolex is followed by a long neck, broad anteriorly, narrow posteriorly, with unequal length and measures 2.554 to 3.208 in length and 0.511 to 0.795 in breadth.

The mature segments are very much broader than long, almost 7-8 times broader, with convex lateral margins, with projections at the posterior corners of the segments and measures 0.121 to 0.146 in length and 1.088 to 1.161 in breadth. The testes are small in size, spherical in shape, surrounding the ovary in the central medulla, extend from the anterior to the posterior margin of the segments, 135-145 (142) in number, evenly distributed, bounded laterally by longitudinal excretory canals and measures 0.010 to 0.015 in diameter. The cirrus pouch is medium in size, oval in shape, transversely placed, placed just anterior to the middle of the segments and measures 0.121 in length and 0.024 to 0.039 in breadth. The cirrus is thin almost straight, contained within the cirrus pouch and measures 0.121 in length and 0.005 to 0.010 in breadth. The vas deferens is thin, short, curved, slightly obliquely placed and measures 0.097 in length and 0.005 to 0.010 in breadth.

The ovary is distinctly bilobed, small in size, placed at the middle of the segments, aporal lobe is slightly larger than the poral lobe and measures 0.214 in length and 0.029 to 0.039 in breadth. The ovarian lobes are small in size, bean shaped in appearance, each lobe with few short, blunt, round acini. The vagina starts from common genital pore, thin, runs straight, posterior to the middle of the segments reaches and opens into the ootype and measures 0.582 in length and 0.010 to 0.015 in breadth.

A small, spherical ootype is present, which is post ovarian and measures 0.010 in diameter. The genital pores are small in size,

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round in shape, almost at the middle of the lateral margins, irregularly alternate and measure 0.015 in diameter.

The longitudinal excretory canals are medium in width and measure 0.010 in breadth. The vitellaria are granular wide strips, in cortical and subcortical regions, on each lateral side of the segments and from the anterior to the posterior margins of the segments.

RESULTS AND DISCUSSIONS

After going through the literature and considering the number of testes, the worm under discussion, turned out to be *Acanthobothrium coronatum* (Rudolphi, 1819) [1], Van Beneden, 1849 [2]. The present cestode resemble it, in many characters, but differ from the same in few characters, which are as follows:

1. In the present tapeworm, the number of testes is 135-145, whereas the same in *A. coronatum* is 80-120.
2. In the present cestode, the ovary is distinctly bilobed, placed at the middle of the segments, aporal lobe slightly larger than poral lobe, bean shaped, with short, blunt, round acini; whereas the same in *A. coronatum* is 'U' shaped or 'H' shaped, with two or four lobes.
3. In the present form, the genital pores are almost at the middle of the lateral margins; whereas the same in *A. coronatum* are at the front of the middle.

Van Beneden, in 1849 reported his worm *Dasubatus kuhli* from Ceylon; whereas the present worms are being reported from *Rhynchobatus djeddensis*, at Bombay, M.S. (West coast of India), India.

- Type species - *Acanthobothrium coronatum* (Rudolphi,1819) [1], Van Beneden, 1849[2].
- Host - *Rhynchobatus djeddensis*
- Habitat - Spiral valve.
- Locality - Bombay, M.S. (West coast of India), India.
- Date of collection - 15th December, 1990.

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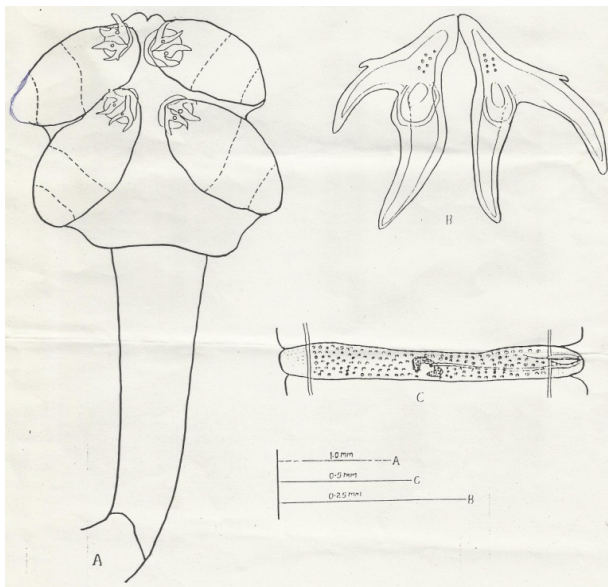


Fig 1. *Acanthobothrium coronatum*