

# A new species of the cestode *echeneibothrium benedeni* n.sp from *rhynchobatus djeddensis* at panji, goa state, india

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## Abstract

The present communication deals with the description of new species of genus *Echeneibothrium benedeni* n.sp. comes closer *E. flexile* Linton, 1890 [1] on the basis of number of loculi on each bothridium, however it differs from them in number of loculi; number of testes cirrus, position, genital, pore, and vittellaria.

**Keywords:** Marine fish, cestode, echeneibothrium.

## INTRODUCTION

The genus *Echeneibothrium erected*, by Beneden, 1850 [2], its type species *E. benedeni*. Later on 43 species are added to this genus by various workers in the world. The present description of new species, *Echeneibothrium benedeni* n.sp.

## MATERIAL AND METHODS

Ten species, cestode parasites, collected from spiral valve, *Rhynchobatus djeddensis*. All flattened, preserved 4% formalin, stained with Harris haematoxyline, passed through various alcoholic grades, whole mount slides, prepared for anatomical studies. Drawings made with the help of camera lucida.

## DESCRIPTION

The scolex large, distinctly marked off from strobila, large, globular, bothridia, short peduncle, 1.426-1.439 x 0.985 1.417; bothridia 4, large, oval, stalked, petal like, each bothridium, single, longitudinal septum, many transverse septa, forming 2 rows, loculi, each row with 16 loculi & single small loculum, each end. (Total 16+16+2-34), 1.137 -1.426 x 0.606 - 0.856; neck short, broad anteriorly, narrow posteriorly, highly muscular, 0.454 - 0.705 x 0.159 - 0.447; mature segments broader than long, 0.282 - 0.340 x 0.461 - 0.476; testes small, oval, 18-22 (20), central medulla, distributed in two lateral fields, posterior half of segment, 10 poral, 10 aporal, evenly distributed, 0.015-0.019 x 0.015-0.024; cirrus pouch large, oval, towards anterior margin segments, 0.267 x 0.067 - 0.102; cirrus thin, slightly coiled, within, cirrus pouch, 0.252 x 0.010; vas deferens thin, towards anterior side of segment, enlarges

to form external seminal vesicle, 0.131 x 0.005-0.010; external seminal vesicle medium, elongated, oval, anterior cirrus pouch, 0.160 x 0.039 - 0.049; ovary medium, distinctly bilobed, dumb-bell shaped, poral lobe slightly longer than aporal, connected by isthmus, near posterior margin of segment, 0.267-0.335 x 0.102-0.116; isthmus wide; vagina starts from genital pore, to the centre of segments, turns towards posterior side, middle of segments, reaches opens into ootype, 0.383 x 0.010-0.015; ootype medium, oval, post-ovarian, near posterior margin of segments, in aporal half of the segments, 0.029 x 0.029-0.034; genital pores small, oval, marginal, posterior to middle of the segments, unilateral, 0.053 x 0.024; vitellaria granular, thin strips, in corticular region of the segments, on each lateral side, anterior to posterior margin of the segments, longitudinal excretory canals medium, 0.010 in width.

Type species - *Echeneibothrium benedeni* n.sp, Host - *Rhynchobatus djeddensis* cantor, 1851, Habitat - Spiral valve, Locality - Panji, Goa, (West coast of India) India. Date of collection - 21 st January, 1991.

## RESULTS AND DISCUSSION

The worm under discussion differs in having number of loculi (34 loculi i.e. 16 pairs + 2) from *E. variabile* (34 vs. 10), *E. fallax* (34 vs. 18), *E. flexile* (34 vs. 40), *E. macrascum* (34 loculi vs. 10 loculi, in 4 pairs, arranged in longitudinal series and rest of two each one on either side of series, in position of genital pores from *E. variabile* (Marginal, just posterior to middle of segment vs. at 1/3rd from anterior margin of the segments), *E. fallax* (marginal, just posterior to middle of segments vs. at about middle of segments), *E. flexile* (marginal, just posterior to middle of segment vs. at about middle of segment vs. at about middle of segment, regularly alternate), *E. macrascum* (marginal, just posterior to middle of segments vs. in middle of margin of the segments) and *E. smitii* (marginal, just posterior to middle of segments vs. at about middle of margin) and *E. multiloculatum* (34 loculi vs. 20 loculi, in 9 pairs and rest of two each one on either side of series). *E. smitii* (34 vs. 17 loculi, in a row) further differs in number & shape of testes from *E. variabile* (18-22 (20) vs. 28); *E. macrascum* (18-22 (20) vs. 20); *E. multiloculatum* (18-22 (20) vs. 17, round to oblong & *E. smitii* (18-22 (20) vs. 22-24), further it differs in shape of ovary *E.*

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variabile (Distinctly bilobed, dumb-bell shaped vs. 'FT shaped), E. fallax (Distinctly bilobed, dumb-bell vs. 'H' shaped), E. flexile (Distinctly bilobed, dumb-bell shaped vs. 'U' shaped), E. macrascum (Distinctly bilobed, dumb-bell shaped vs. 4M' shaped) & from E. smitii (Distinctly bilobed, dumb-bell shaped vs. 'H' shaped); further present cestode differs in shape of vitellaria from E. variabile (Granular, thin strips, corticular vs. follicular, in 3 rows), E. fallax (Granular, thin strips, corticular vs. follicular, in 2 rows), E. flexile (Granular, thin strips, corticular vs. follicular, at the sides of testicular fields, in a

single row), E. macrascum (Granular, thin strips, corticular vs. (small follicles, on either side of testicular fields & ovary), E. multiloculatum (Granular, thin strips, corticular vs. follicular, in 1-2 rows), and E. smitii (Granular, thin strips vs. in corticular parenchyma).

The above distinct distinguishing characters, as noted above, justify the recognition of these worms, into a new species and hence the name *Echeneibothrium benedeni* n.sp. is proposed after Shri Beneden, who has contributed in the erection of this genus in 1950.

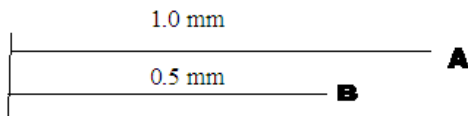
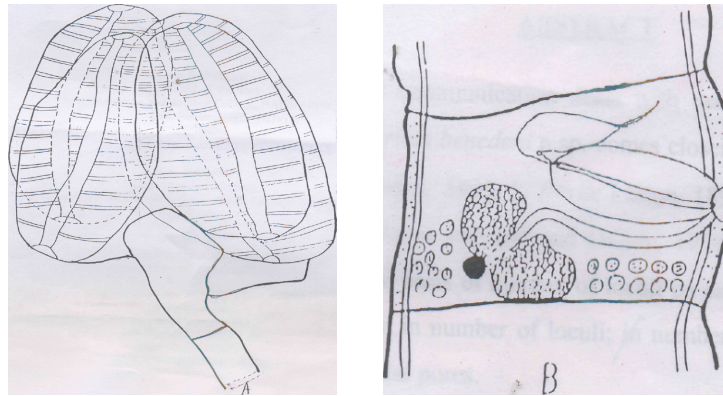


Fig1. *Echeneibothrium benedeni* n.sp

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