

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

D.D.Khamkar¹ and A.N. Mote²

¹Department of Zoology, Arts, Commerce and Science College, Badnapur, Dist. Jalna (M.S.), India.

²Sant Ramdas, College Ghansawangi, Dist. Jalna (M.S.), India

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, 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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*Corresponding Author

D.D.Khamkar
Department of Zoology, Arts, Commerce and Science College, Badnapur, Dist. Jalna (M.S.), India.

Email:

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.

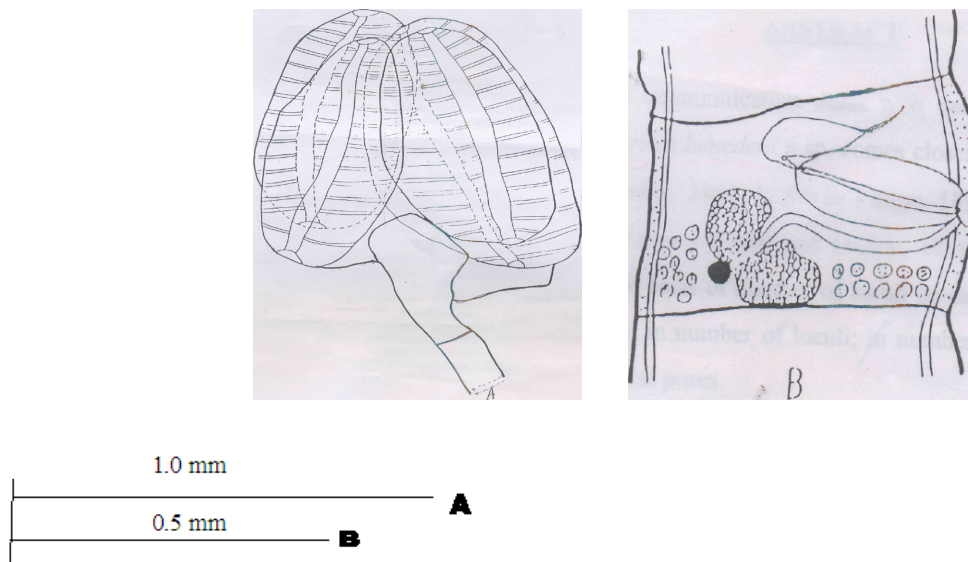


Fig1. *Echeneibothrium benedeni* n.sp

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