

Studies on new species of Cestode parasite *Flapocephalus sephenae* sp. Nov. of *Trygon sephen* form Mumbai coast.

Jagtap VA^{1*} Bhagwan HK² and Vhanalakar SA¹

¹Department of Zoology, Karmaveer Hire Arts, Science, Commerce & Education College, Gargoti, Tal – Bhudargad, Dist – Kolhapur (M.S.) India 416209

²S. M. D. M. College, Kallam, Tal - Kallam, Dist-Usmanabad.

*Corresponding Author E-mail: vilas_jagtap@rediffmail.com

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ABSTRACT

The scolex is medium in size, globular in shape; the scolex is divided in to two regions. The anterior region is small in size, oval in shape, represented by two globular flaps with fan wise arrangement of muscles which are arranged in two. The accessory suckers are small in size, rounded in shaped. The scolex is followed by a long neck. The mature segments are large in size, The testes are medium in size, oval in shape, 140 in number, The cirrus pouch is large in size, oval in shape, opens sub marginal, The cirrus is medium width, coiled contained within the cirrus The internal seminal vesicle is situated posterior to the cirrus, which is small in size, oval The vas deferens is long, thin, extends The ovary is large in size, 'U' shaped in appearance, The vagina is medium the ootype The receptaulm seminis is largein size, oval in shape The ootype is medium in size, round in shape, situated. The genital pores are large in size, oval in shape; The vitellaria are follicular, in corticular and sub corticular regions and extends from the anterior to the posterior margin of the same in lateral fields. The longitudinal excretory canals are thin.

Keywords: Cestode Parasites, *Flapocephalus sephenae*, *Trygon sephenae*, Mumbai Coast

INTRODUCTION

The genus *Flapocephalus* is erected by Deshmukh, 1977 as a *Flapocephalus trygoni* from *Trygon sephen* Cuvier, (1871) at Ratnagiri. Later on Shinde and Deshmukh added one more new species as a *Flapocephalus saurashtrii* from Trygoni sephen Shinde and Deshmukh, (1979) at Ratnagiri, M.S. India. Added some species Deshmukh, (1979) new Cestode *Flapocephalus trygoni* from *Trygon sephen* from west coast of India. Southwell (1930) the fauna of British India including Ceylon and Burma Cestode London.

Yamaguti (1959) Systema Helminthum. The cestodes of Vertebrates. Interscience. New York. Wardle et al. (1974) Advance in zoology of tape worm Minneapolis. Wardle and McLeod (1952). The zoology of tapeworams univ. Minnesota.

MATERIALS AND METHODS:

These cestodes were flattened in 4% formalin, passed in alcoholic grades, stained with Borax carmine and mounted in D.P.X. and whole mount slides were prepared for further anatomical studies.

Description:

The scolex is medium in size, globular in shape, distinctly marked off from the strobila and measures 0.982 (0.980-0.985) in length and 0.890 (0.883-0.898) in breadth. The scolex is divided into two regions. The anterior region is small in size, oval in shape, represented by two globular flaps are thickly muscular with fan wise arrangement of muscles, placed opposite to each other and measures (0.890-0.910) in length and 0.815 (0.810-0.820) in breadth. The flaps are medium in size globular in shape and measures 0.553 (0.548-0.558) in length 0.223 (0.218-0.228) in breadth. The posterior region is large in size, almost oval in shape, bearing four medium, round accessory suckers, which are arranged in two pairs and measures 0.90 (0.890-0.910) in length and 0.779 (0.777-0.782) in breadth.

The accessory suckers are small in size, rounded in shape and measures 0.048 diameters. The scolex is followed by a long neck, anterior region broader posteriorly and measures 0.550 (0.543-0.558) in length and 0.101 (0.106-0.111) in breadth. The mature segments are large in size, almost three times longer than broad, with straight and slightly convex lateral margin, with projections at the anterior and posterior corners of the segments, slightly narrow anteriorly, wider posteriorly and measures 1.337 (1.325-1.349) in length and 0.461 (0.456-0.464) breadth. The testes are medium in size, oval in shape, 140 in number, preovarian, two rows in each half of the segments, in the central medulla, extending laterally, in two lateral fields and measures 0.0679 (0.0631-0.0728) in length and 0.0242 (0.0194-0.0291) in breadth. The cirrus pouch is large in size, oval in shape, opens sub marginal, slightly obliquely placed, situated in region at 1/3rd from the anterior margin of the segments, extends medially and measures 0.172 (0.169- 0.174) in length and 0.111 (0.101-0.121) breadth.

The cirrus is medium width, coiled contained within the cirrus pouch and measures 0.201 (0.190-0.203) in length and 0.00068 (0.0011-0.0022) in breadth. The internal seminal vesicle is situated posterior to the cirrus, which is small in size, oval and measures 0.0169

(0.0145-0.0194) in length 0.0018 (0.0012-0.0024) breadth. The vas deferens is long, thin, extends obliquely and measures 0.0169 (0.0145-0.0194) in length and 0.0018 (0.0012-0.0024) breadth. The ovary is large in size, 'U' shaped in appearance, distinctly bilobed, situated near the posterior margin of the segments, extends laterally up to the cortical or sub cortical region of the segments, the ovarian lobes are rectangular in shape, extend anteriorly and measures 0.655 (0.650-0.660) in length and in 0.198 (0.121-0.104) breadth. The vagina is medium in width, proximally broad, narrow distally, starts from genital pore, posterior to the cirrus pouch, take a curve medially, runs obliquely, almost up to the middle of the segment, reaches and open into the ootype and measures 0.813 (.810-0.815) length and 0.0068 (0.0011-0.0022) in breadth. The receptaculum seminis is large in size, oval in shape and measures 0.208 (0.203-0.213) in length and 0.106 (0.101-0.111) in breadth.

The ootype is medium in size, round in shape, situated in the concavity of the ovarian lobe, preovarian in position and measures 0.0024 diameter. The genital pores are large in size, oval in shape, open sub marginally, just anterior to the middle of the segments, irregularly alternate and measures 0.455 (0.406-0.484) and breadth respectively. The vitellaria are follicular, in cortical and sub cortical regions and extend from the anterior to the posterior margin of the same in lateral fields. The longitudinal excretory canals are thin and measures 0.10 in width.

RESULTS

The genus *Flapocephalus* was erected by Deshmukh, (1977), with its type sp. *Flapocephalus trygoni* from *Trygon sephen* Cuvier, (1871), at Ratnagiri, M.S. India. Later on the following species are added to this genus.

- 1) *F. trygoni* Deshmukh, (1979).
- 2) *F. saurashtrii* Shinde & Deshmukh, (1979).

The present communication, deals with a new species of the genus *Flapocephalus* i.e. *F. sephenae* sp. nov. At Mumbai coast (M.S) India. The parasite, under discussion in having the scolex large in size, globular, divided into two regions anterior and posterior, distinctly marked off from the strobila, single flap, neck present, testes oval, 104 in number, in two row, cirrus pouch large, oval, situated anterior half of the segment, vagina medium width, posterior to the cirrus pouch,

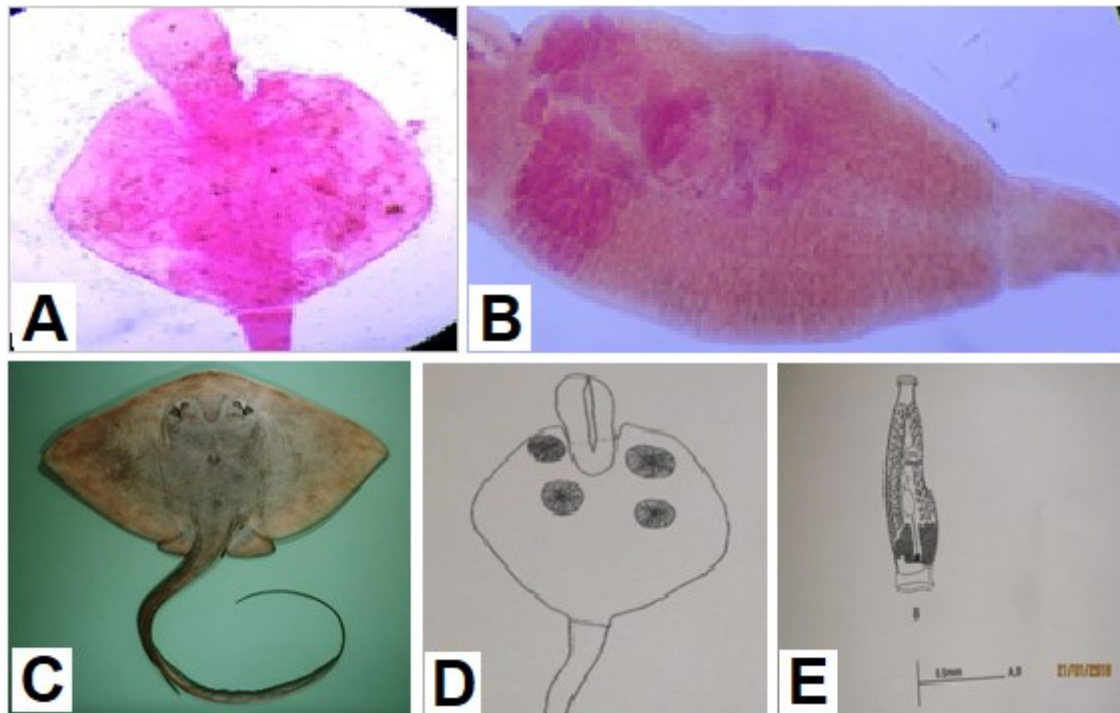


Fig. 1: A. Scolex, B. Mature Proglottid, C. Host .Trygon Sephen, D. Scolex E. Mature Proglottid

vitellaria follicular, from the anterior to the posterior margin of the segments.

1. The worm under discussion, in having scolex is globular in shape, differs from *F. trygoni*, which is having cushion like shape.
2. The present cestode parasite, in having globular flap, differs from *F. trygoni*, two semicircular flaps.
3. The present tapeworm, which is having mature segment longer than broad, differs from *F. trygoni* in having longer than broad.
4. The present worm, which is having testes 140 in number, differs from *F. trygoni*, 17-20 in number.
5. The present cestode, which is having vagina posterior to the cirrus pouch, differs from *F. trygoni* anterior to the cirrus pouch.
6. The present parasite, which is having ovary bilobed, differs from *F. trygoni* single mass, elongated bandlike compact.
7. The worm, under discussion in having scolex is globular in shape, differs from *F. saurashtrii*, which is having large globular.
8. The present cestode parasite, in having globular flap, differs from *F. saurashtrii* which is having two irregular flap.
9. The present tapeworm, which is having mature segment, longer than broad, differs from *F. saurashtrii* in having broader than long.

10. The present worm, which is having testes 140 in number, differs from *F. saurashtrii* in having 85-95 in number.
11. The present cestode parasite, which is having vagina, posterior to the cirrus pouch, differs from *F. saurashtrii* in having posterior to the cirrus pouch.
12. The present parasite, which is having ovary bilobed, differs from *F. saurashtrii* in having single mass elongated compact.

The above noted characters are valid enough to erect a new species to accommodate these worms and hence the name *Flapocephalus sephenae* sp.nov.

CONCLSION

By observation noted characters, it is desirable to erect a new species, to accommodate these worms and the name. *Flapocephalus sephenae* sp.nov. is proposed after the species name of the host

Type species *Flapocephalus sephenae* sp.nov.

Host *Trygon sephen*.

Habitat Spiral valve.

Locality Mumbai coast, India.

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