

**A REPORT OF A SPECIES OF THE GENUS GYMNORHYNCHUS (CESTODA: TRYPONORHYNCHA)
FROM TRYGON ZUGEI FROM RATNAGIRI**

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ABSTRACT

This paper deals with redescription of a cestode from *Trygon zugei* Muller and Henle in Ratnagiri Maharashtra state i.e. *Gymnorhynchus malleus* Linton, 1924 which is having some additional characters, such as number of testes 90 – 95 (92), medium preovarian, shape, size and structure of ovary indistinctly bilobed, with numerous, short, blunt acini, shape, size and position of the cirrus pouch oval in shape, large in size, situated at the middle of segments and opens sub marginally.

KEY WORDS: Cestodes, *Gymnorhynchus malleus*, Linton 1924, *Trygon zugei*, Muller and Henle.

INTRODUCTION

The genus *Gymnorhynchus* is established by Rudolphi, 1819. Linton in 1924 reported his worms from *Dasybathus centrurus* from Ceylon, whereas the present worms are being reported from *Trygon zugei*, at Ratnagiri, M.S. (West coast of India), India.

MATERIALS AND METHODS

Eleven species of cestode parasites were collected from spiral valve, *Trygon centrura*. All flattened, preserved in 4% formalin, stained with Harris haematoxyline, passed through various alcoholic grades whole mount slides, prepared for anatomical studies. Drawings were made with the help of camera Lucida.

RESULTS AND DISCUSSION

Description

Eleven specimens of the cestode parasites were collected from the intestine of *Trygon zugei* Muller and Henle, at Ratnagiri, M.S. (West coast of India), India; in the month of April, 1991. The scolex is long, large in size, cylindrical in shape, with four bothridia, overlapping long, eversible proboscides and measures 8.625 – 10.232 in length and 0.982 – 2.142 in breadth. The scolex is divided into three parts, anterior part is pars bothridialis, middle part is pars vaginalis, posterior part is pars bulbosa, pars bothridialis is with four bothridia, which are overlapping on each other oval in shape and measures 1.428 – 1.607 in length and 0.107 – 0.197 in breadth. From the anterior part of bothridia evaginate four, long, proboscides which are armed with 10 hooks, in a transverse line and measures 1.428 – 1.714 in length and 0.232 – 0.286 in breadth. The hooks measure 0.130 in length and 0.016 – 0.019 in breadth. The pars bothridialis follows pars vaginalis, which is the longest region, give out, four long tubes which connect to the pars bulbosa and measures 4.063 – 4.087 in length and 0.107 – 0.143 in breadth. The posterior and last region is pars bulbosa consisting of four bulbs, cylindrical, placed in the extreme posterior region of the scolex and measures 2.320 – 2.409 in length and 0.179 – 0.286 in breadth. The bothridia measures 0.893 – 1.428 in length and 0.446 – 0.535 in breadth.

The neck is short, broad anteriorly, narrow posteriorly and measure 0.982 in length and 0.750 – 0.929 in breadth. The mature segments are longer than broad, more than two times longer than broad, with slightly convex and straight lateral margins, with slight projections at the posterior corners of the segments and measures 2.136 – 2.181 in length and 0.909 – 0.989 in breadth.

The testes are 90 – 95 (92) in number, medium in size, oval in shape, preovarian, distributed evenly from anterior margin of the segments to the ovary except the cirrus pouch region, in a single field, in the central medulla, bounded, laterally longitudinal excretory canals and measures 0.057 – 0.091 in length and 0.068 – 0.102 in breadth. The cirrus pouch is large in size oval in shape, obliquely palced, extends up to the middle of the segments medially, situated at the middle of the segments opens submarginally and measures 0.488 in length and 0.181 – 0.316 in breadth. The cirrus is thin, coiled, contained within the cirrus pouch and measures 0.499 in length and 0.011 – 0.023 in breadth. The vas deferens is thin, short and measures 0.259 in length and 0.011 in breadth. The ovary is indistinctly bilobed, large in size, dumbbell shaped in appearance, placed near the posterior margin of the segments, reaching up to the subcuticular region on each side, lobes with irregular margin, with numerous short, blunt, round acini and measures 0.829 in length and 0.270 – 0.352 in breadth. The vagina is posterior to the cirrus pouch, thin, long, starts from genital pore, runs obliquely up to the middle of the segments, takes a turn to the posterior side, runs posteriorly, reaches and opens in to

ootype and measures 0.886 in length and 0.034 – 0.068 in breadth. The ootype is medium in size, oval in shape, cylindrical, anteroventral to the isthmus of the ovary, anteroposteriorly elongates and measures 0.214 in length and 0.068 – 0.091 in breadth.

The genital pores are medium in size, oval in shape, submarginal in position, irregularly alternate situated almost at the middle of the lateral margin of the segments and measure 0.124 in length and 0.068 – 0.079 in breadth. The longitudinal excretory canals are medium in width and measures 0.023 in width. The vitellaria are granular, corticular, thin strips on both the lateral sides and from anterior strips on both the lateral sides and from anterior to the posterior margin of the segments.

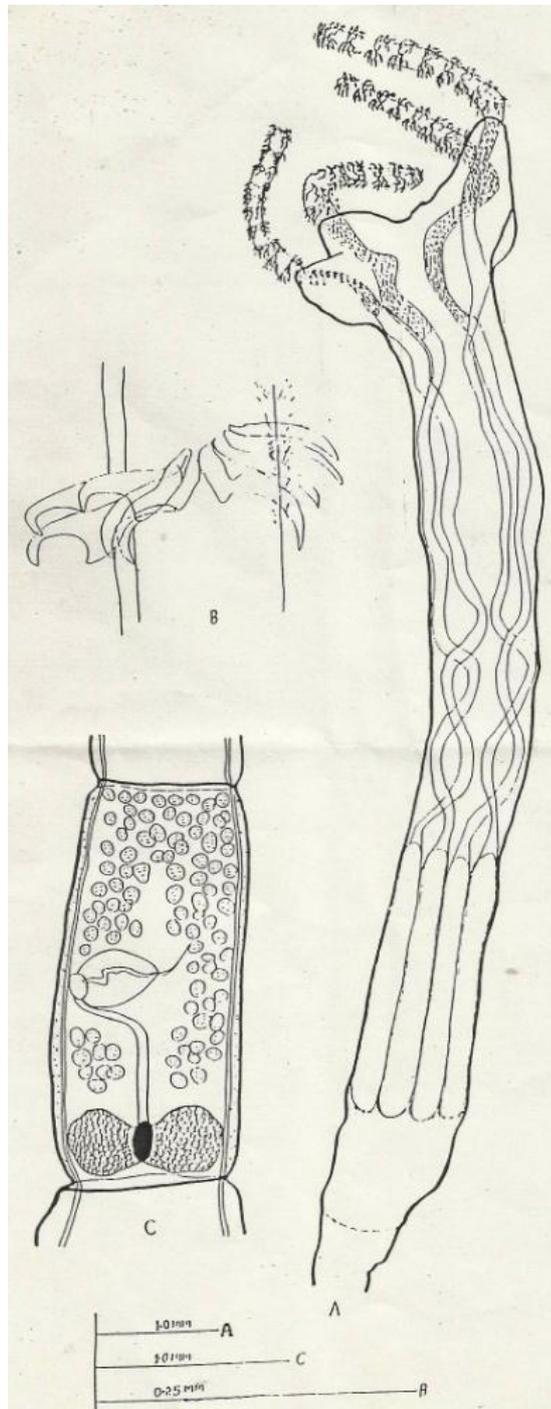


Figure: *Gymnorhynchus malles* Linton, 1924. (A) Scolex, (B) Tentacle, (C) Mature segment.

Type species	: <i>Gymnorhynchus malleus</i> , Linton 1924
Host	: <i>Trygon zugei</i> , Muller and Henle, 1841
Habitat	: Intestine
Locality	: Ratnagiri, M.S. (West coast of India), India
Date of Collection	: 5 th April, 1991

RESULTS AND DISCUSSION

After going through literature, the present worms, turned out to be *Gymnorhynchus mallens*, Linton, 1924. It differs from the same, in few characters but is having some additional characters, which are as follow:

The present worm differs from *G. mallens* in the number of testes 90 – 95 (92), medium, preovarian vs. 200, extend posteriorly on each side of the segments to the ovary. The present cestode, differs from the same, in the shape, size and structure of ovary (Indistinctly bilobed, large in size, dumbbell shaped in appearance, near the posterior margin of the segments, lobes with irregular margin, with numerous, short, blunt acini vs bilobed, finely granular and at 1/4th from then posterior margin of the segments. The present tapeworms, differs from it, in the shape, size and position of the cirrus pouch (oval in shape, large in size, situated at the middle of segments and opens submarginally vs marginal and at 2/3rd from the anterior margin of the segments. As the above noted characters are minor it is redescribed here, as *Gymnorhynchus mallens* Linton, 1924. Linton in 1924 reported his worms from *Dasybatus centrurus* from Ceylon, where as the present worms, are being reported from *Trygon zugei*, at Ratnagiri, M.S., (West coast of India), India.

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