

**A REPORT OF A SPECIES OF THE GENUS GYMNORHYNCHUS (CESTODA: TRYPANORHYNCHA)  
FROM A TRYGON CENTRURA FROM BOMBAY.****Khamkar D.D.**

Arts, Science and Commerce College, Banapur, Districtt: Jalna, India.

(E-mail: [dashrath.khamkar@rediff.com](mailto:dashrath.khamkar@rediff.com))**ABSTRACT**

This paper deals with redescription of a cestode from *Trygon centrura* in Maharashtra i.e. *Gymnorhynchus gigas*, Cuvier, 1817 which is having some additional characters such as number of testes 40-45 (41), large, oval in shape and position of ovary distinctly lobed, medium, lobes compact, extend anteriorly, shape and position of the cirrus pouch.

**KEY WORDS:** Cestoda, *Gymnorhynchus gigas*, *Trygon centrura*,**INTRODUCTION**

The genus *Gymnorhynchus* is established by Rudolphi, 1819. Cuvier, in 1817 reported his worms from *Dasybatus walga* from Ceylon, present worms are being reported from *Trygon centrura*, Woods Hole, at Bombay, M.S. West coast of India, India.

**MATERIALS AND METHODS**

Fifteen 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.

**DESCRIPTION**

Fifteen specimens of the cestode parasites, were collected from the spiral valve of *Trygon centrura* woods Hole at Bombay, M.S., (West coast of India), India, in the month of December, 1990. The scolex is small in size, long cylindrical in shape, distinctly marked off from the strobila and measures 12.822 in length and 0.606 – 1.428 in breadth. The scolex is divided into three parts, anterior part is pars bothridialis, middle part is pars vaginalis and posterior part is pars bulbosa. The parts bothridialis is short, roughly triangular in shape, consists with four overlapped bothridia, through which protrude out, four armed proboscides and measures 0.982 – 1.214 in length and 0.054 to 0.071 in breadth. The pars vaginalis is very long, tubular in shape, convoluted with corled, four tubes, which are connected to the posteriorly situated bulbs and measures 4.820 – 4.999 in length and 0.036 – 0.071 in breadth. The pars bulbosa bears four, long, cylindrical bulbs, placed in the extreme posterior region of the scolex and measures 3.481 – 3.659 in length and 0.179 to 0.250 in breadth.

The bothridia are medium in size, triangular in shape, flattened, consists of four protrusible proboscides (tentacles) which measures 1.071 – 1.214 in length and 0.304 – 0.357 in breadth. The tentacles are long, armed with hooks and measure 1.874 – 3.302 in length and 0.179 – 0.268 in breadth. The arrangement of hooks on the tentacles is different at various places. The hooks are long, rose thorn shaped, 10 in number, in a transverse line. The hooks at its base are with broad base and distal pointed end and measures 0.102 in length and 0.015 – 0.029 in breadth. The neck is short, slightly broad anteriorly, narrow posteriorly and measures 0.553 in length and 0.410 – 0.535 in breadth.

The mature segments are longer than broad, more than two times longer than broad, with slightly irregularly lateral margins, without projections at the anterior and posterior corners of the segments and measure 1.303 in length and 0.470 – 0.553 in breadth. The testes are 40 -45 (41) in number, large in size, oval in shaped, transversely placed elongated, preovarian, in tow lateral fields of the segments, evenly distributed, in a single row on each side, in the central medulla, from the anterior margin of the segments to the ovary bounded laterally by longitudinal excretory canals and measures 0.030 – 0.045 in length and 0.068 – 0.121 in breadth. The cirrus pouch is small in size, oval shaped, transversely placed, extends upto 1/4<sup>th</sup> of segments medially, opens marginally, situated at 1/4<sup>th</sup> from the posterior margin of the segments and measures 0.121 in length and 0.053 – 0.083 in breadth. The cirrus is thin, short, contained within the cirrus pouch and measures 0.106 in length and 0.008 – 0.015 in breadth. The vas deferens is thin short and measures 0.167 in length and 0.008 in breadth.

The ovary is distinctly bilobed, medium in size lobes compact, extend anteriorly, placed near the posterior margin of the segments and measures 0.212 in length and 0.038 – 0.083 in breadth. The vagina is posterior to cirrus pouch, starts

form the genital pore, runs obliquely up to the middle of the segments, takes a turn to the posterior side, runs posteriorly, almost in the middle of the segments, reaches and opens into an ootype and measures 0.440 in length and 0.023 – 0.030 in breadth. The ootype is small in size round in shape, placed on the isthmus of ovary and measures 0.038 in diameter. The genital pores are small in size, oval in shape, marginal in position, regularly alternate, situated at 1/4<sup>th</sup> from posterior margin of the segments and measures 0.060 in length and 0.030 – 0.038 in breadth. The longitudinal excretory canals are medium in width and measure 0.015 in width. The vitellaria are granular, cortical wide strips, on both the lateral sides and from the anterior to the posterior margin of the segments.



**Figure: *Gymnorhynchus gigas*, Cuvier, 1817. (A) Scolex, (B) Tentacles, (C) Mature segment.**

Type Species	: <i>Gymnorhynchus gigas</i> , Cuvier 1817
Host	: <i>Trygon centrura</i> , Wood Hole
Habitat	: Spiral valve
Locality	: Bombay, M.S. (West coast of India), India.
Date of Collection	: 16 <sup>th</sup> December, 1990

### RESULT AND DISCUSSION

After going through the literature, the present worms, turned out to be *Gymnorhynchus gigas* Cuvier, 1817. It differs from the same in few characters, but is having some additional characters, which are as follows.

The present tapeworm, differs from *Gymnorhynchus gigas* in the number of testes 40 – 45 (41), oval, in two lateral groups, single row on each side, preovarian vs. 100, oval, postovarian to posterior to the ovary, arranged in two groups. The present worm, differs from the same, in the shape and position of ovary (distinctly bilobed), medium, lobes compact, extends anteriorly, situated near the posterior margin of segments us, bilobed, situated at little distance from the posterior extremely, each lobe lies close to the laterlal margin of segments).

The present cestode, differs from it, in the shape and position of the cirrus pouch (small, oval, short vs, very large, globular and extends more half way across the segments (i.e. extends medially beyond the middle of the segments). As the characters are few and minor, it is redescription here, as *Gymnorhynchus gigas* Cuvier, 1817. Cuvier in 1817 reported his worms from *Dasybatus walga* from Ceylon, whereas the present worms are being reported from *Trygon centrura*, words Hole, at Bombay, M.S., West coast of India, India.

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