



Description of *Gangensia moghanesis* sp.nov from *Wallago attu*

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ABSTRACT

Present communication deals with the study of taxonomic observation of piscian tapeworm *Gangensia moghanesis* Sp.Nov collected from the intestine of *wallageo attu* from Mogha dam at Ahmedpur dist. Latur(M.S) India during May.2012-June.2013 Present form come closer to all known species of genus *Gangensia*, Woodland,1924 in having general topography of organ but differs due to scolex large, triangular in shape, suckers four, arranged in two pair, rostellar hooks 15 in number, in a single circle, neck present, mature segment border than large, testes oval, 87 in numbers, ovary large distinctly bilobed, vagina is thin tube arise from genital pore, vitellaria are follicular.

Key words: *Gangensia*, *Mogha dam*, *Wallago attu*.

INTRODUCTION

Fishes are important protein food source in human life. Fishes show wide range of distribution in marine and freshwater, siluroid fishes are important naturally developed food fish group found in the catch in this region. It is found that various species of cestode worm invade in the small intestine of these fishes. Fishes are rich in protein and vitamins like A, D, E, B12.

MATERIALS AND METHODS

Seventeen specimen of the cestode parasite, were collected, from the intestine of Fresh water fish, *Wallago attu*. From Mogha dam at Moha Tq. Ahmedur taluka M.S. India during the period of May 2012 June 2013 And The worm were flattened, preserved in 4% formalin, stained with Borax carmine, passed through various alcoholic grades, cleared in xylene, mounted in D.P.X. and whole mount slides were prepared for further anatomical studies. Drawings are made with the aid of Camera lucida and all measurements are recorded in millimeters. The identification done by "systema Helmithum" Vol.II by Yamaguti 1959.

RESULT AND DISCUSSION

The Siluroid fish *Wallago attu* Collected from Mogha dam at Mogha Tq. Ahmedpur Dist. Latur, M.S. India in the month of May 2012, to see the intensity of infection of cestode parasite in intestine.

All the cestodes were long, with thin musculature; white in colour with scolex numerous immature and mature proglottids. The scolex is large in size, almost triangular in shape, narrow anteriorly, broad posteriorly, broader than long, distinctly marked off from the strobila and measures 0.285 to 0.298 length and 0.76 to 0.321 breadths. The scolex bears four suckers, which are medium in size, oval in shape, touching or overlapping on each other in each pair, touching to the lateral margin and measures 0.082 to 0.120 lengths and 0.76 to 0.101 breadths. The rostellum is present, anterior tip of the scolex, which are medium in size, oval in shape with rounded blunt margin of the scolex and measures 0.141 in length and 0.149 to 0.198 in breadth. Scolex, armed with single row of rostellar hooks and measures 0.082 to 0.087 in length and to 0.069 to 0.072 in breadth. The rostellar hooks are present, on the rostellum, 15 in number, arranged in a single circle, which are medium in size, with basal disc and single, straight, blunt, pointed

prong and measures 0.022 to 0.025 in length and 0.004 to 0.013 in breadth.

The Neck is present, quite long. The mature segments are medium to large in size, almost squarish in shape, slightly broader than long, almost two times broader than long; with slightly convex lateral margins, with or without projections at the anterior and posterior corners of the segment and measures 1.369 to 1.556 length and 1.507 to 1.859 breadths.

The testes are small to medium in size, oval in shape, 87 in number, preovarian in a single field evenly distributed, except in the region of the cirrus pouch, central medulla, bounded laterally by the longitudinal excretory canals, from ovary to the anterior margin of the segments and measures 0.024 to 0.069 length and 0.024 to 0.079 breadth. The cirrus pouch is large in size elongated cylindrical in shape broad proximally narrow distally, crosses the longitudinal excretory canal and measures 0.389 to 0.430 length and length 0.019 to 0.043 breadth. The cirrus is thin, wide, straight, contain within the cirrus pouch and measures 0.450 in length and 0.011 to 0.021 in breadth The vasdeference is thin, long, slightly curved, crosses the vagina, extends, anteriorly and measures 0.145 in length and 0.004 to 0.009 in breadth.

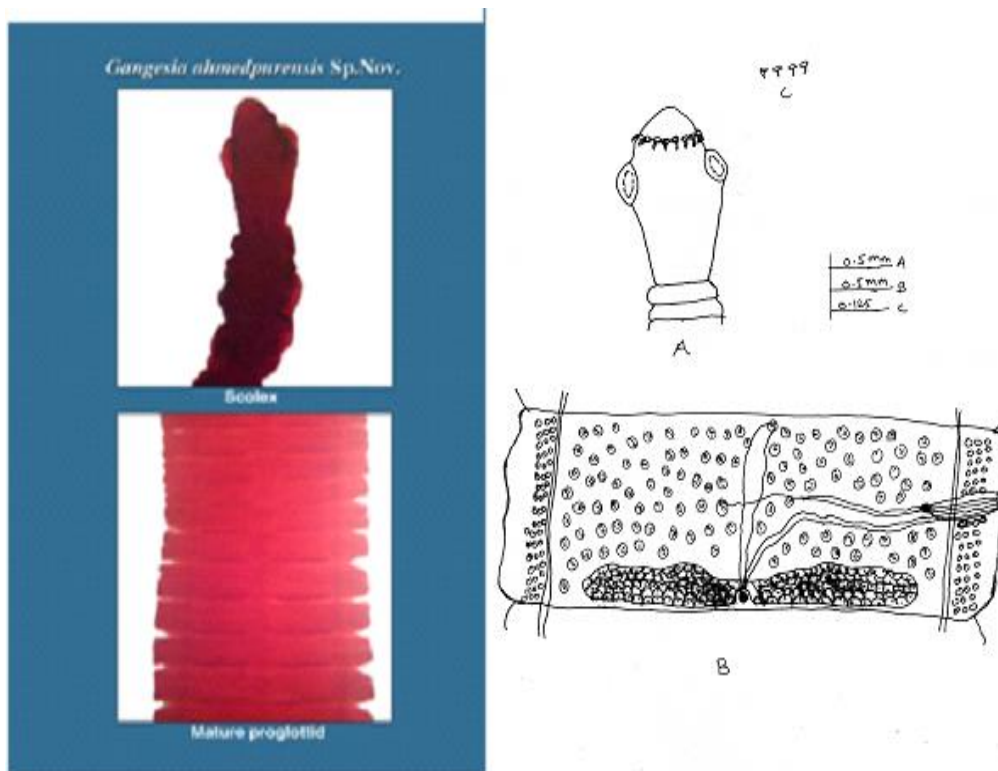


Fig. ???

The ovary is large in size, distinctly bilobed situated near the posterior margin of the segment, lobes are equal in size and lobes extend up to the longitudinal excretory canals, on both the lateral sides and measures 0.145 to 0.165 in length and 0.039 to 0.049 in breadth. The ovarian lobes are connected by a short, wide isthmus which measures 0.024 to 0.069 in length and 0.035 to 0.069 in breadth.

The vagina is a thin tube arises from the genital pore placed anteriorly to the cirrus pouch, runs parallel to it, extends up to the middle of the segments, then turns posteriorly, reaches and opens in to the ootype and measures 1.383 in length and 0.011 to 0.022 breadth.

The ootype is medium in size, oval in shape, and measures 0.079 to 0.124 in length and 0.064 to 0.089 in breadth. The genital pore are medium in size, oval in shape, situated just anterior to in middle of segment and measures 0.068 to 0.103 in length and 0.014 to 0.019 breadth. The uterus is tubular, extends from the ootype, to the anterior margin of the segments, unbranched and measures 1.382 in length & 0.045 to 0.089 breadth. The vitellaria are follicular, which are medium in size, oval in shape, in two rows on each side in the cortical regions, from the anterior to the posterior margins of the segments and measures 0.022 to 0.034 diameter. The longitudinal excretory canals are medium in width and measures 0.009 to 0.0037 in breadth

The present cestode is having the scolex medium, triangular rostellar hooks 15 in number, in a single circle, testes medium oval in shape 87 in number, in a single field, ovary large, distinctly bilobed, vagina anterior to the cirrus pouch.

After going through literature, the worm under discussion in having 15 rostellar hooks, come closer to

1. *G. bengalensis* southwell 1913 .

2. *G. pseudotropii* verma 1928.

3. *G. luganae* Gupta & Area 1982 .

4. *G. clariasae* Jadhav, Babre, Bamgale Pawar 2001.

But differs from them, in many characters which are follows.

1. The present cestode, differs from *G. bengalensis* which is having 28-42 rostellar hooks, in single row testes 100 vagina anterior or posterior or posteroventral to the cirrus pouch.
2. The newly proposed cestode are distinguished from *G. psedotropil* in not having scolex, narrow anteriorly and posteriorly, broader at the middle, a

- short neck, testes 100, Uterus with lateral diverticula on each side.
3. The newly proposed cestode are distinguished from *G. haeyane* is not having lacking spines the suckers, short neck, testes 200, Uterus with 24 lateral diverticular on each side.
4. The present cestodes differs from *G. calarisae* 17-20 rostellar hooks long nail like, long, thick neck, testes 85-90 ovary bilobed, long finger like lobed.
5. The present worm differs from *G. polynchis* , hooks 40- 52 in numbers, testes 100-120 in numbers.
6. The newly proposed cestode are distinguished from *G. kashmirensis* in having hooks 30 in numbers, testes 200 in numbers, ovary bilobed thick tube, vitellaria follicular
7. The present tapeworm differs from *G. sohensis* is having scolex in distinct from body, hooks 22-25 in numbers , in single circle
8. The present parasites differs from *G. mehamdabadensis* is having hooks 66 in numbers, ovary bilobed with quadrangular shape
9. The newly proposed cestode are distinguished from *G. haryaneii*, is having, hooks 20 in numbers, testes 200 in number, ovary bilobed.
10. The present tapeworm differs from *G. indica* is having hooks 24-26 in numbers, testes 125 in numbers and reported from *Wallago attu*.
11. The newly proposed cestode are distinguished from *G. hanumanthai* is having oval scolex, hooks 24-26 in numbers, neck present, testes 45-75 in number.
12. The present tapeworm differs from *G. paithanesis* , is having triangular scolex, hooks 11 in numbers, testes 280-300 in number,
13. The present worm differs from *G. fotedari* scolex oval, hooks 30-48 in numbers, testes rounded 120-135 in numbers
14. The newly proposed cestode are distinguished from *G. shindei* hooks 28 in numbers; in to single circle, testes 180-190 in numbers
15. The present tapeworm differs from *G. aurangabadensis* is having hooks 48 in numbers, arranged in two circle, testes rounded, 350-360 in numbers,
16. The present form differs from *G. senghali* globular scolex, hooks 36-38 in numbers, single circle , neck absent, testes oval to elongated, 220-230 in numbers.
17. The newly proposed cestode are distinguished from *G. mastacebli* hooks 18 in numbers, testes 170-190 in numbers, vagina thin posterior to cirrus pouch

18. The newly proposed cestode are distinguished from *G.ambikaei* in having hooks 36-37 in numbers, testes 388 - 400 in numbers.
19. The present parasite differs from *batrachusi* testes 105-115 in numbers, vitellaria follicular.
20. The newly proposed cestode are distinguished from *G.wallague* globular scolex, single row of hooks testes oval 70-75 in numbers and vitellaria granular.
21. The present worm differs from *G.bendsurensis* in having hooks 35-47 in numbers and testes 170-190 in numbers.
22. The newly proposed cestode are distinguished from *G.sunegaonsis* shows triangular scolex, hooks 20 in numbers, testes 130-140 in numbers and vitellaria follicular.
23. The present parasite differs from *G.jayakwadensis* in having scolex quadrangular, hooks 25-29 in numbers.
24. The newly proposed cestode are distinguished from *G.shivajiraoi* is having globular scolex, hooks 19 in number, rose thorn shaped, neck is short, testes 227 in numbers, vitellaria 1-2 rows

As the characters, of the present tape worm are distinct, it is desirable to erect a new species, for these worms and hence the name *Gangesia moghanesis* Sp. Nov. is proposed, after the locality.

Type species - *Gangesia moghanensis* n.sp.

Host - *Wallago attu*

Habitat - Intestine

Locality - Mogha dam

At. Mogha Tq. Ahmedpur, Dist. Latur

M.S. India.

Date of collection - 17 May. 2012

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