



A New Proteocephalidean Tapeworm, *Gangesia* (GANGESIA) Shahgadensis N-Sp. from Godavari River-Fresh Water Catfish Wallago Attu At Shahgad, Dist-Jalna (MS) India

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ABSTRACT

The present communication which deals with the proteocephalus *Gangesia* (*Gangesia*) *shahgadensis* from Godavari river Dist Jalna (MS) India. The worms closer to all the known species of this genus, scolex round, oval, rostellar hooks 20 to 25, proglottids broader than long, testes 250-300 in number, ovary bilobed, vitellaria follicular, round in shape.

KEYWORDS : Protocephalidian, tapeworm, wallagoattu, Dist- Jalna.

Introduction: The genus *Gangesia* was erected by Woodland in 1924. The description of *Gangesia* by Southwell (20) was very meager and Verma (22) gave fresh account form. In the same paper Verma also described *G. pseudotropii* form. *Silurus Gangia* and *G. graensis* from *Wallagoattu*. Southwell (21) however recognized only four valid species of the genus, other being regarded as synonyms and *G. pare-siuri* was reported by Yamaguti (26) later on Wardle Mcleod (25) accepted Verma's *G. pseudotropii*, which is proposed as new genus *Vermaia* by Nybelin (14) but later Dhar and Fotedar (2) added one more species and given a revised diagnosis of the genus *Gangesia* and proposed to be divide genus *Gangesia* Woodland (25) into sub genera is that *Gangesia* (*Gangesia*), *Gangesia* (*Vermaia*), *Gangesia* (*Gangesia*) have genital pores irregularly alternating neck and strobila without spines, rostellum with single or double row of hooks and testes in one field. *Gangesia* (*Vermaia*) have genital pores regularly alternating, neck and strobila with spine, rostellum with single round crown of hooks and testes in single or double field. The species reported by Fotedar and Dhar (3) *G. jamunesis* and *G. kashmiresis* are placed in sub genus *vermia* & *Gangesia* respectively. They further pointed out that in *G. poglchis* and *G. polyonchis* (4) are reported to the sub genus *Vermaia* Dharet, al. (2) we are not including *Gangesiasindensis*, *Rachna* and *Bilgue* (16) in their list. Later Malhotra added *G. sonechensis* and *G. mehanadabadensis* (12&13). Malhotra et al. (12) have upheld the synonyms of *G. lucknowi* (19) with *G. bengalensis* Southwell (20) as discussed earlier by Rai (17) but later Seth and Capoor (1) have accommodated *G. polyonchis* and *G. oligonchis* previously in sub genus *vermia* by Dhar et al., (2) and erected in sub genus *frezia*. Later on many species have been added by different author in the genus *Gangesia* (*Gangesia*) are as follows. All the above author have not considered the sub genus *Gangesia* (*Gangesia*) and late suggested by Dhar and Fotedar (2) but the literatures showed that there are no spines on the scolex and strobila genital pores irregularly alternating hence above species should be placed in the sub genus *Gangesia*. The present communication deals with the *Gangesia* (*Gagesia*) a new species from the fresh water catfish *Wallagoattu* (Bloch).

Material and Methods

Eleven cestodes parasites were collected from the intestine of fresh fish *Wallagoattu* from Godavari river at Shagad, Dist- Jalna in the month of August 2014. The worms were collected, washed with saline water, flattened and preserved in 4% formalin, the parasites were stained with Harris haematoxylin stains & passed through alcoholic grades, cleared in xylene & mounted in D.P.X. Drawings were made using camera Lucida.

Description

The scolex is rounded to somewhat oval in shape, broader at anterior, middle and posterior side, distinctly marked off from the proglottids, muscular, and measures 0.25-0.35 long by 0.315-0.60 wide, scolex consist of four suckers small round to oval in shape muscular and overlapping on each other, measures 0.3589-0.3686mm in length and 0.006-0.219 in breadth. Rostellum with a double rows of stout hook and measures 0.369-0.389 in length and 0.0087-0.233 in breadth. The rostellar hooks are 20 to 25 in number, very stout and have a single pointed spine or prong and measures 0.0087-0.906 in length and 0.09-0.022 in breadth. The neck is short, immediate the proglottids are start. The mature proglottids broader than long, measures 0.528-0.642 in length, 1.128-1.154 in breadth. The testes 250-300, oval,

small preovarian, scattered anterior part of proglottids, except cirrus pouch, 0.029-0.043 in breadth, 0.022-0.028, cirrus pouch large fusiform, 0.268-0.283 in length, 0.028-0.96 in breadth. The cirrus is thin, straight, cirrus pouch 0.238-0.228mm in length, 0.015-0.023 in breadth. The vas deferens long, thin tube, starts from cirrus, extends upto middle proglottids, 0.286-0.075mm in length, 0.006-0.013 in breadth. The ovary bilobed somewhat round, placed posterior margin of the proglottids extends laterally upto the vitellaria. Each lobe is broad ovarian margin, irregular, 0.148-0.217 mm breadth. The genital pore is placed in margin of cirrus pouch, takes curve, posterior, and opens into ootype, 0.738-0.752 mm in length and 0.06-0.0042 in breadth. Ootype round, oval big and present at the center of the two ovarian lobes, 0.185 in diameter. Genital pore irregularly alternate oval, lateral margin of the proglottids, 0.102-0.134mm in length and 0.013-0.036mm in breadth. The uterus sac like 18-20 diverticulae, 0.475-0.495 in length and 0.21-0.089 in breadth. The vitellaria follicular, round arranged in double rows along, the lateral side of the segment.

Discussion

The new species *Gangesia* (*Gangesia*) *Shahgadensis* new species comes closer to species of subgenus of *Gangesia* viz *G. Macrons*, *G. Parasiluri*, *G. Lucknowia*, *G. Kashmiriensis*, *G. Mehamadabadensis*, *G. Laxnumanthalai*, *G. Pathnesis*, *G. Maharashtraii*, *G. Dharurensis*, *G. Seenghali*, *G. Clariusae*, *G. Rohitae*, *G. Mastacembali*. However, the new species differs from *G. Macrons* (25), rostellar hooks (20-25) against 37, testes 250-300, vs 100, vas deferens continue inside the cirrus pouch, ovary butterfly in shape as against compact and uterus without diverticulae.

The present work differ from *G. Lucknowia* (19) testes 250-300 as against 130-150, uterus without diverticulae, ovary distinctly bilobed as against squarish. The present work differs from *G. Kashmiriensis* (2) testes 250-300 as against less than 200. The present work differ from *G. Sonhensis* (12) testes 250-300 as against 112-184, suckers without spines, neck absent, vas deferens thin tube. *G. Mehamadabadensis* (13) smaller scolex, rostellar hooks 20-25 as against 20 testes 250-300 as against 200.

The present worms differ from *G. Indica* (6) rostellae hooks 20-25 as against 24-26 uterus sacs like.

The present worms differ from *G. Hanumanmanthi* (1) scolex globular as against round oval, testes 250-300 as against 45-48. The present worms differ from *G. Paithensis* (10) rostellae hooks 20-25 as against 11-13.

The present worms differ from *G. aurangabadensis* (18) testes 250-300 as The present worms differ from *G. Hanumanmanthi* (1) scolex globular as against round oval, testes 250-300 as against 45-48.

The present worms differ from *G. sumani* (18) scolex round as against triangular testes 250-300 as against 103. Ovary bilobed with 4-6 acni.

The present worms differ from *G. mahearshti* (7) scolex oval vs triangular testes 250-300 as against 60-70. Ovary butterfly vs bilobed compact. The present worms differ from *G. Seenghali* (8) rostellar hooks 20-25 vs 38-56 testes 250-300 as against 220-230. The present worms differ from *G. clariusae* (11), scolex oval, round, rostellar hooks 20-25

vs 17-20, testes 250-300 as against 145-155. The present worms differ from *G.mastacombl* (23), scolex triangular with four oval suckers, rostellar hooks broader at the base and tapering at the end, testes 250-300 as against 170-190. Uterus tubular, long extends anterior end of the segment. The above distinct character are more than enough to erect new species from the genus *proteocephalidae*, hence the name *Shashagadensis* new species is proposed, it is reported from the Shashgad, bank of the Godavari river from where the fishes collected, District Jalna (MS) India.

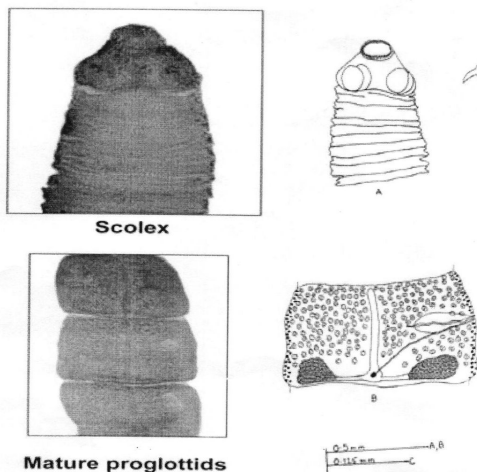
Taxonomic Summary:

Genus- *Gangesia* woodland 1924

Species- *Gangesia* (*Gangesia*) *Shashgadsensis* N.sp.

Host- *Wallagoattu* (Bloch)

Habit-Intestine



A) Scolex
B) Mature proglottid
C) Hooks

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