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Redescription of Trematode parasite *Azygia angusticauda* (Stafford 1904, Bhalerao 1942) in Fresh water fish *Clarias batrachus* from Maharashtra, India

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Abstract

The present communication deals with the redescription of Trematode parasite Azygia angusticauda. Reddish brown in colour, Body elongate, without spines, dorsoventrally flat and transparent. Measure 5.999(5.888- 6.111) in length and 0.910(0.777-1.044) in width. Mouth is surrounded by the oral sucker which is slightly sub terminal in position while ventral sucker is distinctly smaller than the oral sucker and oval in shape. Oesophagus is very short. Measuring 0.105(0.0999-0.111) in length and 0.044(0.033 -0.055) in width. Intestinal Caeca long, tubular, runs along sides of body and terminates slightly in front of hind end of body. Testes are large oval, anterior testis smaller than posterior testis. Cirrus pouch lay in front of ventral sucker. Ovary transverse, oval in shape, Receptaculum seminis present just in front of ovary, oval in shape. Vitellaria follicular extracaecal.

Key words- Redescription, Trematode, Azygia angusticauda, Clarias batrachus.

I. INTRODUCTION

India is one of the most Mega Diversity country [7] About 55 families of fresh water fishes [2] Mostly Indiana consume fresh water fish, it contains proteins and vitamin B_{12}. Fishes also produce Omega-3, fatty acid which is helpful to the Heart patient.

About 10 million tons of fish are required to meet the annual demand for fish protein in India, compared to the actual production of only 3.5 million tons [9]. *Clarius batrachus* (Catfish) comprise a major group in the fish fauna and many of them serve as a food source, having high nutritive value. It has been reported that end parasitic Helminthes with an indirect life cycle parasitize one or more definitive hosts belonging to the family Clariidae leading to heavy economic losses [4,8]

Fresh water fishes are infected with at least one species of digenetic trematodes. From Kolkata and surrounding areas four species of trematodes was reported in fresh water fishes [3]

In life cycle of *Azygia angusticauda* intermediate host is Molluscan snail and the definitive host is often Fish [10].

II. MATERIAL AND METHODS

The four Trematode parasites were collected from stomach of Clarius *batrachus*. They were preserved in 4% formalin and stained with Harris haematoxylin, passed through various alcoholic grades, Cleared in Xylen, mounted in D.P.X and drawings are made with the aid of Camera lucid. All measurements are given in millimeters.

III. DESCRIPTION

Four mature trematodes were obtained from the stomach of fresh water fish, *Clarius batrachus* (Linnaeus, 1758) from Ahmednagar dist. (M.S).India

The worms in living condition are reddish brown and show movement of contraction and expansion. Body elongate, without spines, dorsoventrally flat and transparent. They measure 5.999(5.888-6.111) in length and 0.910(0.777-1.044) in width.

Mouth is surrounded by the oral sucker which is slightly sub terminal in position and somewhat oval in shape, measuring0.483 (0.477-0.488) in length and 0.582(0.577-0.588) in width.

The ventral sucker is distinctly smaller than the oral sucker which is oval in shape, placed more or less at the base of the anterior third of the body.measuring0.477 (0.466-0.488) in length and 0.555(0.544-0.566) in width. Pharynx large, bulbus, globular, over lapping behind oral sucker measures and 0.127(0.122-0.133) in length and 0.161(0.155-0.166) in width. Oesophagus is very short. Measuring 0.105(0.0999-0.111) in length and 0.044(0.033 -0.055) in width.

Intestinal Caeca long, tubular, runs along sides of body and terminates slightly in front of hind end of body and measures4.850 (4.828-4.872) in length and0.0721 (0.066-0.077) in width.

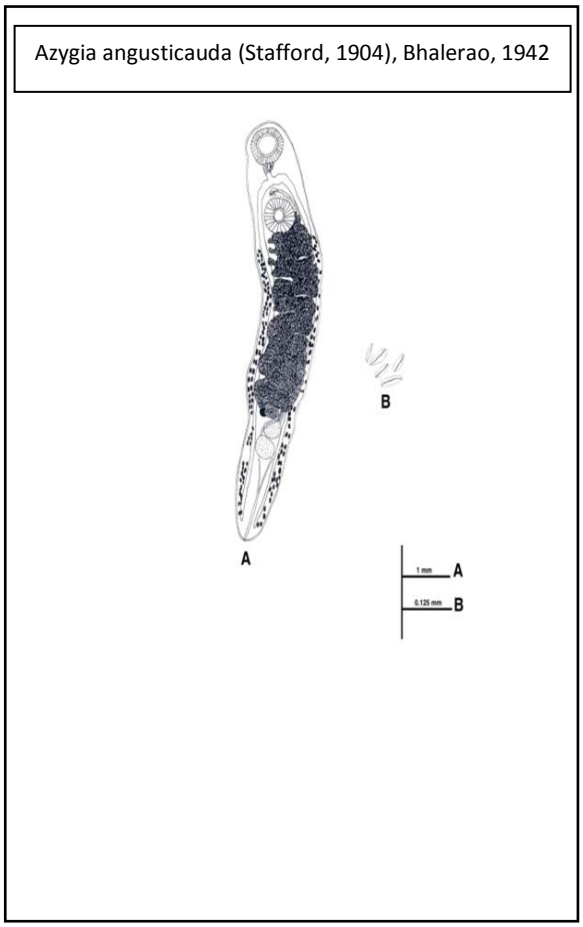
Excretory pore at the posterior extremity, bladder 'Y' shaped medium stem extending up to a little posterior to hind testis and then divides in to right and left branches.

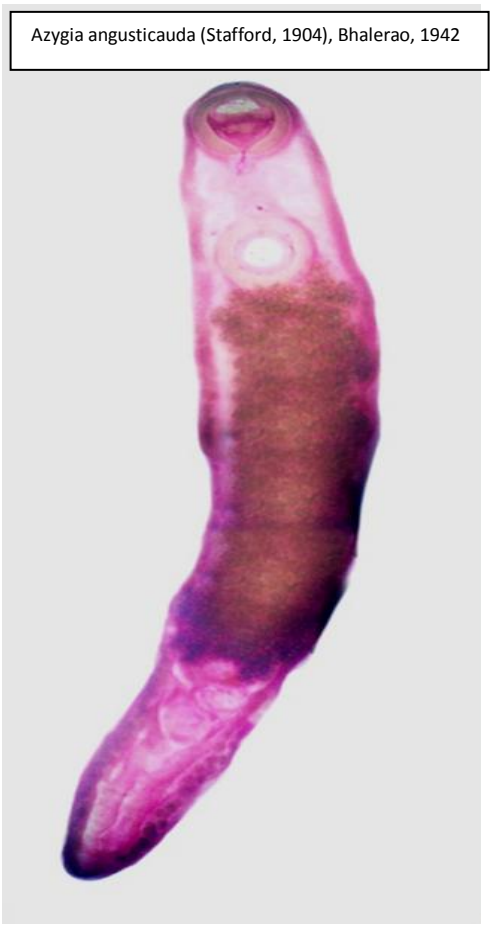
Testes large, oval or rounded, inter caecal and located anterior region of posterior third of body or in hind end of body. Anterior testis slightly smaller than posterior testis and measures 0.338 (0.333-0.344) in length and 0.249 (0.244-0.255) in width, while posterior testis slightly larger, measures 0.361 (0.355-0.366) in length and 0.261 (0.255-0.266) in width.

Genital Pore preacetabular oval in shape and 0.943 from anterior extremity measures 0.027 in diameter.

Cirrus pouch elongated, lying in front of ventral sucker, measuring 0.155 (0.144-0.166) in length and 0.0721 (0.066-0.077) in width. It contains a coild vesicular seminalis, pars Prostatica and ejaculatory duct.

Ovary transverse, oval in shape and measures 0.266 (0.255-0.277) in length and 0.166 (0.155-0.177) in width, lay 4.073 from the anterior end. Receptaculum seminis present just in front of ovary which is oval in shape and measures 0.105(0.099-0.111) in length and 0.083 (0.077-0.088) in width. Mehalis gland left side, just in front of ovary measuring 0.144 (0.133-0.155) in length and 0.049 (0.044-0.055) in width.





Uterine coil inter caecal, lay transversely between ovary and posterior border of ventral sucker. Eggs oval yellow in colour, operculated numerous in number and measures 0.126 (0.106-0.146) in length and 0.051(0.044- 0.057) in width.

Vitellaria follicular oval in shape, extra caecal are arranged of two sides in double row up to the hind end of the body. Measures 0.066 (0.055- 0.077) in length and 0.038 (0.033-0.044) in width.

IV. RESULT AND DISCUSSION

The genus *Azygia* erected by Looss, 1899 which is under the family Azygiidae. The present parasite resembles in most of characters *Azygia angusticauda*, [11, 1] but it differ from the same which as follows.

1) Extension of intestinal Caeca reaches up to last posterior extremity Vs reaches up to hind end of body.

2) Vitelline follicles, large and extra caecal to hind end of body Vs vitelline follicles overlapping and extending from middle of ventral sucker up to hind end of body.

3) Anterior testis slightly smaller than posterior testis Vs Anterior testis larger than posterior testis.

As above Character are minor, it is redescribed here as *A. angusticauda* [11, 1] The present parasite is collected from Ahmednagar Dist. (M.S), while *A. angusticauda* from Varanasi (U.P).

V. TAXONOMIC SUMMARY

Genus	*Azygia*, [6]
Species	*Azygia angusticauda* [11, 1]
Type of host	*Clarius batrachus* [5]
Habitat	Stomach
Type locality	Ahmednagar dist. (M.S).India.
Period of collection	July 2007 to June 2010.
Etymology	As the Trematode species reported from Ahmednagar (M.S).

V. CONCLUSION

The present Taxonomical study revel that the Catfish Clarias batrachus infected by trematodes Azygia *angusticauda*. These trematodes located in stomach of the host absorb important nutrients and causes them.

VI. ACKNOWLEDGEMENT

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