

Study of New Trematode *Astiotrema lucknowensis* Found In The Intestine Of *Kachuga intermedia* (Boulenger)

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Abstract

The present form differs from all known species except *A. heteropneustusi*; *A. kachugai*; *A. cirricurvatus*, *A. varanusi*; *A. fotedari*; *A. siddiqui* and *A. manteri* in the absence of receptaculumseminis. The present form differs from all these in the extension of vitellaria from anterior level of ovary up to little below to the posterior testes.

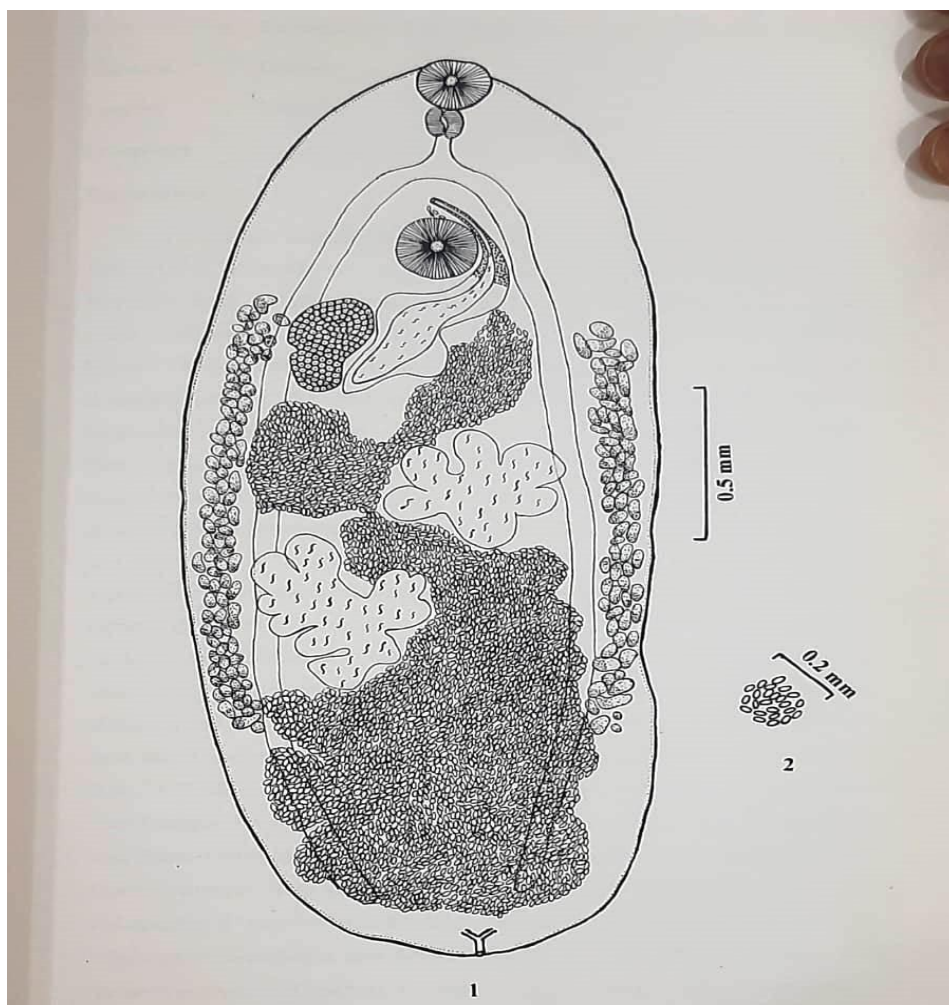
Key Words: *Astiotrema*, *Kachuga*, Lucknow and Intestine

Introduction

During the survey of trematode parasites of vertebrates, the author collected two specimens from the intestine of *Kachuga intermedia* (Boulenger) from Lucknow. This is described as a new species of a genus *Astiotrema* (Looss, 1898) Looss, 1900.

Materials and Methods

Preserved worms were thoroughly washed in 70% alcohol and then placed in acetoalum carmine for staining. After staining the worms were differentiated dehydrated in ascending grades of alcohols and cleared in xylol and mount in canada balsam. Measurements of various organs of the worms were taken with the help of calibrated ocular micrometer. All the measurements are given in mil- limeter. Diagrams were made with the help of Camera Lucida.



Body elongate, aspinose with rounded. extremities 2.89-3.09 X 0.88-1.19 in size. Oral sucker terminal, spherical 0.13-0.20 X 0.13- 0.20 in size. Prepharynx absent. Pharynx globular 0.08-0.10 X 0.06-0.09 in size. Oesophagus short, tubular 0.08-0.13 X. 0.03- 0.04 in size. Intestinal caeca simple, extending up to posterior end of body. Ventral sucker pre-equatorial, spherical 0.18-0.22 X 0.18-0.22 in size, at 0.49-0.70 from anterior extremity.

Excretory bladder Y-shaped. Excretory pore terminal.

Genital pore median, pre-acetabular at 0.43-0.58 from anterior extremity.

Testes two, diagonal, multilobed. Anterior testis nearly equatorial 0.30-0.36 X 0.38-0.50 in size, at 1.40-1.78 from anterior extremity. Posterior testis postequatorial 0.35- 0.42 X 0.40-0.51 in size, at 1.70-1.84 from anterior extremity. Cirrus sac large, clavate 1.02-1.15 X 0.16-0.20 in size, extending from anterior end of ventral sucker up to hind end of ovary. Vesicula seminalis large, elongated 0.40-0.60 X 0.05-0.08 in size. Pars prostatica long 0.30-0.46 in length surrounded by a large number of prostate gland cells. Ejaculatory duct short open at genital pore.

Ovary oval with notched, pre-equatorial, submedian 0.21-0.31X 0.18-0.21 in size, at 0.77-0.93 from anterior extremity. Receptaculum seminis absent. Vitellaria follicular, extending from anterior level of ovary up to little below to posterior testis. Uterus occupies the entire hind part of body up to anterior level of ovary and opens at genital pore. Eggs oval, non-operculated 0.02-0.03 X 0.01-0.02 in size.

Host : *Kachuga intermedia* (Boulenger)

Location : Intestine

Locality : Lucknow

Thus on account of above mentioned differences as against all those described earlier, the present form deserves the status of a new species with the specific name *A. lucknowensis*.

Discussion

The present form belongs to the genus *Astiotrema* (Looss, 1898). Looss, 1900 with *A. reniferum* as its type species. Agrawal, 1966 while describing *A. lissemidis* from a reptilian host reviewed the genus *Astiotrema* (Looss, 1898) Looss, 1900 and recognized *A. reniferum* (Looss, 1898) Looss, 1900; *A. impletum* (Looss, 1898) Looss, 1900 from fish hosts and *A. monticelli* Stossich, 1904; *A. emydis* Ejsmont, 1930 and *A. cyclemidis* Siddiqi, 1965 from reptilian host as valid species. Dwivedi, 1966 reported *A. longicera* from *Kachuga intermedia* from Jabalpur. Mukherji and Ghosh, 1970 reported *A. sudersini* from *Bufomalanosticus* from Uttar Pradesh. Simha and Chattopadhyaya, 1971 while describing *A. cirricurvatus* from *Trionyx leithi* from Mysore reviewed the genus and considered *A. mehrni* Tewari, 1958 and *A. longicera* Dwivedi, 1966 as synonyms of *A. reniferum* (Looss, 1898) Looss, 1900 the genotype. Verma (1973) reported *A. heteropneustis* from a fresh water fish *Heteropneustis fossilis* from Lucknow and considered *A. longicera* as a synonym of *A. reniferum*. Gupta and Jahan, 1978 while describing *A. kachugai* and *A. varanusi* from *Kachuga hongoka* and *Varanus monitor* from Lucknow considered *A. longicera* Dwivedi, 1966 and *A. sudersini* Mukherji and Ghosh, 1970 as synonyms of *A. reniferum*. Dhar, 1978 added another species *A. fotedari* from a fresh water fish *Labeodero* from Srinagar. Lal and Prasad, 1980 added *A. siddiquii* from *Ranacyanophylctis* from Patna. Gupta and Singh, 1985 reported *A. gangeticus* from a fresh water fish *Clarius batrachus* from Kanpur. Gupta and Saxena, 1988 followed Agrawal, 1966 and describe *A. manteri* from *Kachuga intermedia* from Lucknow and were also in agreement with Simha and Chattopadhyaya, 1971 and Gupta and Jahan, 1978 for the synonymy of *A. mehrni*, *A. sudersini* and *A. longicera* with *A. reniferum*.

Therefore the following species viz. *A. reniferum*, *A. impletum*, *A. monticelli*, *A. emydis*, *A. cyclemydis*, *A. lisemydis*, *A. cirricurvatus*, *A. heteropneustusi*, *A. kachugai*, *A. varanusi*, *A. fotedari*, *A. siddiquii*, *A. gangeticus* and *A. manteri* are valid.

The present form differs from all the above known species of the genus *Astiotrema* except *A. heteropneustusi*; *A. kachugai*; *A. cirricurvatus*; *A. varanusi*; *A. fotedari*; *A. siddiquii* and *A. manteri* in the absence of receptaculumseminis. The present form differs from all these species in the extension of vitellaria from anterior level of ovary up to little below to the posterior testis. The present form further differs from all these form except *A. manteri* in having aspinose body. The present form can further be distinguished from *A. siddiquii*, *A. manteri* in having short tubular oesophagus and from *A. kachugai* in the absence of receptaculumseminis.

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