Cestode: Lytococestus mastacembellusi.

Authors
Dr. Karruna S. Pardeshi
Abasaheb Garware College, Pune
Email: karunapardeshi007@gmail.com

ABSTRACT:
The genus Lytococestus was erected by Cohn, 1908 with its type species L. adhaerens, found in Clarias fuscus in Hong Kong. This genus was first confirmed by Woodland (1926), who included four more species in the addition to the type species. They are L. filiformis woodland (1923), in Mormyrus caschive, Egyptian Sudan, L. chalmersius woodland (1924), L. cunningtoni Fuhrman and Baer (1925), and L. Indicus Moghe (1925) (syn. Caryophyllaceious Indicus) from Clarias batrachus in India. The same were recorded by Mehra (1930) from Clarias magur and Ramadevi (1973) from Clarias batrachus in India. Hunter (1927) placed the genus in subfamily of his own namely, Lytococestinæ and retained only three species i.e. L adhaerens, L. filiformis and L. Indicus. He put the species L. cunningtoni and chalmersius in the genus Monobothriodides. Subsequent workers Gupta (1969), Murhar (1963), have adhered to these changes. Wardle and McLeod (1952) followed Hunters classification but raised the status of Lytococestinæ from Subfamily to a family. Wardle, McLeod and Radinovsky (1974) suggested new classification of Cestode, who used the term Cotyloda as a class. Mickiewicz (1972) included the species L. javanicus Bovien (1926), Furtado (1963), Lynsdale (1956) and L. parvulus Furtado (1963), in this genus. Johyi (1959) Considered L. alestesi as synonym of L. birmanicus Lynsdale (1956), but Mickiewicz (1972) after examination of Original material L. alestesi Lynsdale (1956) conclude that, It should be considered a synonym of L. filiformis woodland (1923). Ramadevi (1973) described L. longicollis from Clarias batrachus in India. All the eight species come from East Asian countries. The present communication, deals with the description of a new species under the same genus, as Lytococestus mastacembellusi n. sp. collected from Mastacembellus armatus, at Paithan, Dist. Aurangabad, M. S. India.

Key words: Cestode, Scolex, Proglottides, Cirrus Pouch, Vatelline glands, isthmus, Ootype, Ovary.

MATERIAL AND METHOD:
Seven specimens, of the Cestode parasites, were collected, from the intestine of Mastacembellus armatus from Godari River, at Paithan. Dist. Aurangabad.M.S. India. The parasites were stained with Harris Haematoxylin and prepared whole mount slides, for anatomical studies. The Head is spatulate, roughly triangular, markedly, narrow anteriory, broad posteriorly and measure 5.087 in length and 1.071 to 1.785 in breadth.
The Head is spatulate, roughly triangular, markedly, narrow anteriory, broad posteriorly and measure 5.087 in length and 1.071 to 1.785 in breadth.
The gonads are situated in the posterior most of warm. The testes are numerous, small in the size, round in shape, 6000 to 6200 in number, preovarian, scattered in medullary region, unevenly distributed, from one lateral to the other lateral margin, situated from the uterine pore to the base of neck and measure 0.089 – 0.107 in length and 0.053 – 0.071 in breadth.
The cirrus pouch is medium in size, oval in shape, obliquely placed, preovarian, in central region of the worm and measure 0.714 in length and 0.285 – 0.428 in breadth. The cirrus is thin tube, coiled, contained within the cirrus pouch and measures 1.250 in length and 0.017 – 0.035 in breadth. The vas deferens is short, thin, slightly coiled measures 0.303 in length and 0.017 in breadth. The ovary is bilobed, lobes with irregular margin, situated near the posterior end of worm, extending laterally up to subcorticular and corticular region and measures 1.285 – 1.305 in length and 0.660 -0.928 in breadth. The poral lobe is medium in size, oval in shape, extends anteriortly, whereas the aporal lobe is almost rectangular in shape, antero-posteriorly placed and both the lobes are connected by an isthmus. The isthmus is short, wide tube, which measures 0.464 in length and 0.142 – 0.160 in breadth. The vagina is a thin tube, starts from the genital pores, runs posteriorly in the middle of worm, slightly curved, runs posteriorly to the isthmus, reaches and opens in to the ootype and measures 3.499 in length and 0.035 – 0.053 in width. The ootype is large in size, round in shape, post ovarian, situated in the concavity of the ovarian lobes, a little away from the isthmus and measures 0.213 in diameter. The genital pore is small in size, round in shape, situated to the left of the centre of the worm and measures 0.053 in diameter. The vitellaria are granular, thin, strips, corticular in position, on each lateral side of the worm and from the posterior margin of the neck to the ovarian lobes. The uterus is a wide, convoluted tube, starts from the ootype, extended anterior to the isthmus, coiled, loop shaped in arrangement, transversely situated, preovarian, opens separately by an uterine pore and measures 12.584 in length and 0.178 – 0.249 in width. The uterine pore is medium in size, oval in shape, double walled, slightly to the right of the centre of worm and measures 0.269 in length and 0.213 in breadth.

DISCUSSION:

The genus Lytocestus was established by Cohn in 1908 as L adhaerens From Clarias fuscus at Hong Kong. Later on the following seven species are added to this genus:

1) L. filiformis woodland, 1923 in Mormyrus caschive Egyptian Sudan.
2) L. Indicus Moghe, 1925 in Clarias batrachus, India.
3) L. alestesi Lynsdale, 1956 in Alestesi nurse, Sudan.
4) L. birmanicus Lynsdale, 1956 in Clarias batrachus, Burma.
7) L. longicollis Ramadevi, 1963 in Clarias batrachus, India.

(1) After going through the literature, the worm under discussion, in having testes numerous, comes closer to L. Indicus, L. birmanicus And L. longicollis.

(2) The worm discussion is very long, having along narrow neck, Testes numerous, cirrus pouch oval, vas deferens short, thin; Ovary bilobed with irregular margin, ootype large, round in shape, post ovarian and vitellaria granular, thin strips.

(3) The present Cestode, differs from L. Indicus which is having testes 230 -270 in number, round in shape, extend up to the cirrus sac region; Vas deferens followed by ductus ejaculatorius, ovary with numerous Follicles, connected by bag pipe shaped isthmus, the wall of uterus Thick, coiled and vitellaria follicular, in 2-3 rows on each side.

(4) The present tapeworm, differs from L. birmanicus which is having neck long , testes medullary, extending up to genital pore; cirrus pouch medullary in position, Ovary wing like numerous follicular, extending upon uterine and genital pore.

(5) The present worm, differs from L. filiformis which is having testes numerous, large, round; cirrus pouch small between ovarian lobes; vas deferens short, thin; Ovary bilobed, with 6 -11 large follicles and vitellaria follicular, large, all Around the testicular zone.
(6) The worm under discussion, differs from L. longicollis Ramadevi (1973) Which is having testes 105 - 140 in number, in two layers, spherical, Broadly oval in shape, cirrus pouch oval in shape, vas – deferens much Convoluted, ovary corticular, ‘H ‘shaped and vitellaria conical, large, All around testes, extending from the base of the neck to the anterior tip Of the ovary, in 1-2 rows on each lateral side.

Lytocestus mastacembellusi n. sp.
Fig A- Scolex
Fig B- Middle segment
Fig C- Mature segment

CONCLUSION:
The distinct characters, as noted above, justify the recognition of the Present warm as a new species and hence the name Lytocestus mastacembellusi is proposed after the generic name of the host.
Type species: Lytocestus mastacembellusi n. sp.
Host: Mastacembellus armatus
Habitat: Intestine
Locality: Paithan, Dist - Aurangabad, M. S, India.

REFERENCES:

