

## New species of the caryophyllidean tapeworm *Lytocestus* Cohn, 1908 from *Clarias Bartachus* (Linnaeus, 1758)

CHANDRASHEKHAR RAMESHWAR KASAR, DHANRAJ BALBHIM BHURE, SANJAY SHAMRAO NANWARE AND M.B. SONUNE

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See end of the article for authors' affiliations

**CHANDRASHEKHAR RAMESHWAR KASAR**  
Department of Zoology,  
S.P.M. Science, Gilani Arts,  
Commerce College, Ghatanji  
YEVAATMA (M. S.) INDIA

### ABSTRACT

The present study deals with a new species of the genus *Lytocestus* Cohn, 1908 viz. *Lytocestus puranensis* Sp.Nov. collected from *Clarias batrachus* (Linnaeus, 1758) from Purna river at Asegaon Dist.- Amaravati, Maharashtra State India. The present parasites are comes closer to all the known species of this genus in general topography of organs but differ from all the known species of the genus *Lytocestus* Cohn, 1908 in having size of worm 17 mm in length and 3 mm in breadth, testes 1000-1200, cirrus pouch oval, obliquely placed, ovary butterfly shaped, vagina long coiled tube, uterus wide, convoluted tube, and vitellaria granular.

**Key words :** Amaravati, Caryophyllidean tapeworm, *Clarias batrachus*, *Lytocestus*.

Cohn, 1908 erected the genus *Lytocestus* with its type species *L. adhaerens* from *Clarias fuscus* in Hong-Kong. This genus was first confirmed by Woodland, 1926 that included four more species in addition to the type species. They are *L. filiformes* Woodland, 1923 in *Mormynus caschive*, Egypt Sudan; *L. chalmersius* Woodland, 1924; *L. cunningtoni* Fuhrmann and Baer, 1925 and *L. indicus* Moghe, 1925 (Syn. *Caryophyllaeces indicus*) from *Clarias batrachus* in India. Mehra, 1930 recorded the same species from *Clarias magur* and Ramadevi, 1973 from *Clarias batrachus* in India. Hunter, 1927 placed the genus in sub-family Lytocestinae and retained only three species i.e. *L. adhaerens*, *L. filiformis* and *L. indicus*. He put the species *L. cunningtoni* and *L. chalmersius* in the genus *Monobothrioides*. Subsequent work of Gupta, 1961 and Murhar, 1963 have adhered to these changes. Wardle and McLeod, 1952 followed Hunter's classification but raised the status of Lytocestinae from Sub family to family. Wardle, McLeod and Radinovskiy, 1974 suggested a new system of classification of cestodes, which used the term Cotyloda as a class and order Caryophyllidea is kept in this class. Mackiewicz, 1972 included the species *L. javanicus* (Bovien, 1926). Furtado, 1963 and Lynsdale, 1950 considered *L. alestesi* as Syn. of *L. barmanicus*, Lynsdale

(1956). But Mackiewicz, 1962 after examination of original material *L. alestesi* (Lynsdale, 1956) concluded that it should be considered as syn. of *L. filiformis* (Woodland, 1923). Ramadevi, 1973 described *L. longicollis* from *Clarias batrachus* in India.

Later on Shinde and Phad, 1988 erected *L. marathwadensis* from *Clarias batrachus* from India. Jadhav and Gavhane, 1991 added two species to this genus i.e. *L. alii* and *L. clariasae* from *Clarias batrachus*. *L. naldurgensis* erected by Kadam *et al.*, 1998 in *Clarias batrachus*. *L. teranaensis* was erected in 1999 by Kolpuke and Shinde from *Wallago attu*. D.N. Patil and B.V. Jadhav, 2002 added *L. govindae* from *Clarias batrachus*. In 2002, Shinde and Pawar added *L. batrachusae* from *Clarias batrachus*. Later on 2004, *L. shindei* was erected by Khadap *et al.*, from *Clarias batrachus*. Tandom *et al.*, 2005 erected four new species *L. clariae*, *L. allenuateus*, *L. assamensis* in *Clarias batrachus* and *L. heteropneustii* in *Heteropneustes fossils*. Poonam, 2007 added *L. mujumdari* from *Clarias batrachus*. Jadhav B.V., Bhure D.B. and Padwal N.D., 2008 added *L. punensis* from *Clarias batrachus*. Recently Bhure *et al.*, 2010 added two species to this genus viz. *L. follicularae* and *L. osmanabadensis* from *Clarias batrachus*.

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### MATERIALS AND METHODS

The single segmented twelve cestodes were collected from *Clarias batrachus* (Linnaeus, 1758), preserved in hot 4% formalin, stained with Harris