



ISSN : 0973-7057

## A nematode genus *Eustrongylides* Jagerskiold, 1909 from Karbhala wetland, Cachar District, Assam, first host report and geographical report

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Received : 25<sup>th</sup> November, 2024 ; Revised : 04<sup>th</sup> January, 2025

DOI:-<https://doi.org/10.5281/zenodo.15978195>

**Abstract-** In the present study, in order to extend the knowledge on the distribution of parasites of fish of the genus *Eustrongylides* in the area were undertaken. *Eustrongylides* is a genus of nematode belonging to the family Dioctophymidae. Fish specimens were collected from Karbhala wetland and analysed. Larval form of *Eustrongylides* sp. were found from the air bladder and intestine of fish host *Channa punctata*. The presence of the parasite in the local fresh water fish is currently very low. The present paper deals with the first report and geographical report of a nematode belonging to the genus *Eustrongylides* from the fish host *Channa punctata* from Karbhala wetland, Cachar District, Assam. Future investigations will show if the parasite expands in these areas. The taxonomical observation was briefly discussed.

**Keywords:** Nematode genus *Eustrongylides*, Kharbala wetland, new host record & new locality

### INTRODUCTION

In 1909, Jagerskiold erected the genus *Eustrongylides* with *E. tubifex* as its type species from *Anas*, *Mergus*, *Pelecanus*, *Colymbus*, *Podiceps*, *Alca* etc.<sup>1</sup> The only species representative reported from fish was *E. wenrichi* Canavan, 1929.<sup>2</sup> In 1963, Fernando and Furtado were reported the larvae of this genus from three fishes, viz., *Heteropneustes fossilis*, *Ompok bimaculatus* and *Wallago attu* from Sri Lanka.<sup>3</sup> In 1974, Kalyankar reported another larvae of the genus from *Sperata seenghala* from Nanded, Maharashtra.<sup>4</sup> In 1979 Naidu reported from *Mastacembelus armatus* from Maharashtra.<sup>5</sup> In 1997, Wang *et al.* reported the larvae of *Eustrongylides africanus* in *Clarias* from Bida flood plain in Nigeria from the fish

species of the families Engraulidae, Cyprinidae, Siluridae, Bagridae, Channidae and Percichthyidae.<sup>6</sup> In 2004, 2005, 2008, Ibiwoye *et al.* studied and reported the occurrence of *Eustrongylides africanus* larvae in *Clarias* species.<sup>7-9</sup>

### MATERIALS & METHODS

Fishes of different sizes were routinely collected from Karbhala wetland, Cachar, Assam. The fishes were examined for endo and exo parasitic infection. The worms collected from the fishes were preserved in 70% alcohol. The preserved specimens were cleared in lactophenol and observed under microscope. Photographs were taken using a digital camera. Drawing was done using mirror type Camera Lucida. The measurements were given in millimetres. Identification was done through standard literature.

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## RESULT & DISCUSSION

### *Eustrongylides* sp. (Figure 1, Plate 1)

Family - Dioctophymatidae, Railliet, 1915

Genus - *Eustrongylides* Jagerskiold, 1909

**Description-** Body 14.1 - 16.92 mm in length and 0.2 mm in width, reddish brown in colour, long, with thick and smooth cuticle and bluntly conical posterior end, posterior end being truncated to form a prepuce-like fold. Head papilla present. Nerve ring 0.04 - 0.1 mm from anterior end. Oesophagus 2.3 - 2.6 mm in length.

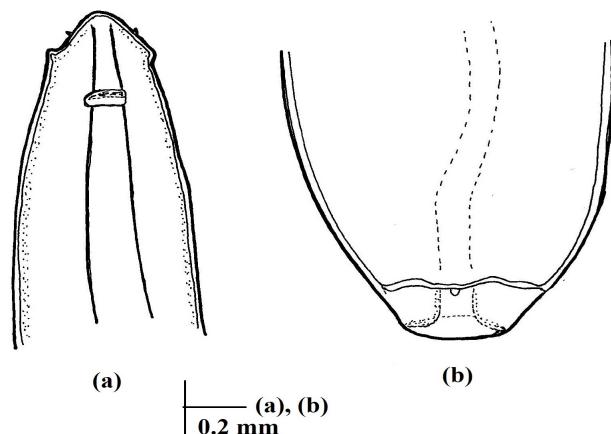


Figure 1. *Eustrongylides* sp. (28X enlarged)

a) Anterior part of the body  
b) Posterior part of the body

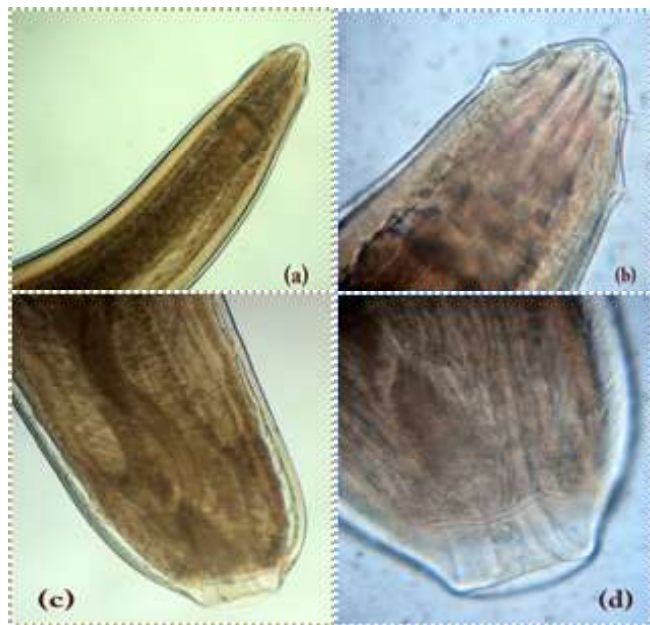


Plate 1: Photomicrograph of *Eustrongylides* sp. (70X enlarged)

(a), (b) Anterior part of the body  
(c), (d) Posterior part of body.

**Remarks :** Due to the presence of the above characters the present nematode was considered as *Eustrongylides* sp. The present form was collected as larval form. Hence, it cannot identify upto species level.

**Host :** *Channa punctata* (New host record).

**Habitat :** Air bladder and intestine.

**Locality :** Karbhala wetland, Cachar District, Silchar, Assam (first geographical record)

**Distribution of *Eustrongylides* in India:** Bhopal; Maharashtra; Silchar, Assam.

Body of the present worm is long, reddish brown in colour, posterior end being truncated to form a prepuce-like fold. Head papilla presents in two circles. Oesophagus long. Due to the presence of the above characters the present nematode was considered as *Eustrongylides* sp.

## CONCLUSION

The present worm is larval form of genus *Eustrongylides*, a nematode belonging to the family Dioctophymidae. During the present study, very less number of larval forms were collected from the fish host *Channa punctata* from Karbhala wetland, Assam. It is a new host record and new geographical record. Due to lack of mature structures, the present worm cannot identify upto species level.

## ACKNOWLEDGEMENTS

The authors are thankful to the authorities of Assam Central University, Silchar and to the Principal and Head, Zoology Department, Thambal Marik College, Oinam, Manipur for giving the necessary laboratory facilities and to the UGC for providing a major research project to the second author and financial assistance to the first author. Thanks are due to Sri S. R. Dey Sarkar, retired Scientist, Zoological Survey of India, Kolkata; our teacher (Late) Prof. Umapati Sahay, retired Dean, HOD & Professor of Zoology, Ranchi University, Ranchi for helping in identification of specimens. Thanks are due to our teacher Prof. A. N. Jha, retired Professor, BRA Bihar University, Muzaffarpur for continuous advised and encouraging.

**Note-** This paper produced wherein facilities created under Biotech Hub, Department of Zoology, Thambal Marik College, Oinam sponsored by DBT, Ministry of Science and Technology, Government of India.

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