

ZEYLANEMA SAILUENSIS N.SP. (CAMALLANIDAE, CAMALLANINAE ZEYLANEMA YEH,1960) FROM OPHIOCEPHALUS STRIATUS (BLOCH)

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ABSTRACT : The present communication deals with a new species of the genus *Camallanus*. The new worm *Zeylanema sailuensis* n.sp is studied from *Ophiocephallus striatus* (Bloch). It shows remarkable difference from other known species of *Zeylanema* in respect to body length, disposition of the papillae, tail, length and the length of spicule.

Key words : *Zeylanema* sp., Freshwater fishes, Nematode parasites.

INTRODUCTION

The worms were collected from the intestine of *Ophiocephalus striatus* at Sailu, Maharashtra State. After its detailed study they were found to be new forms of the genus *Zeylanema* having a single spicule. The present work is based on the study of nine male specimens.

MATERIAL AND METHODS

The male and female nematodes described in this paper collected from the intestine of *Ophiocephalus striatus*, obtained from the various dams, lakes, river streams etc. The nematode were fixed in hot 70% alcohol. The worms were later preserved in fresh 70% alcohol to which 10% glycerine was added. The specimens were cleared in Lactophenol. The worms were mounted in glycerine. All drawings were made with the aid of camera lucida and all measurements are expressed in millimeters.

Description :

The worms are whitish yellow in colour, cylindrical in shape and are of uniform thickness throughout length except posterior. The cuticle is smooth, buccal capsule consists of two valves with two external thickenings and fourteen beaded longitudinal ridges. The buccal valve excluding the posterior chitinous rings measures 0.048 mm in length and 0.054 mm in maximum breadth. The tridents are situated laterally. The nerve ring is situated at 0.10-0.12 mm from anterior end. The total length of the oesophagus is 0.052-0.059 mm of which the muscular and glandular portions are 0.21-0.25 mm and 0.32-0.36 mm long (Figs. 1&2).

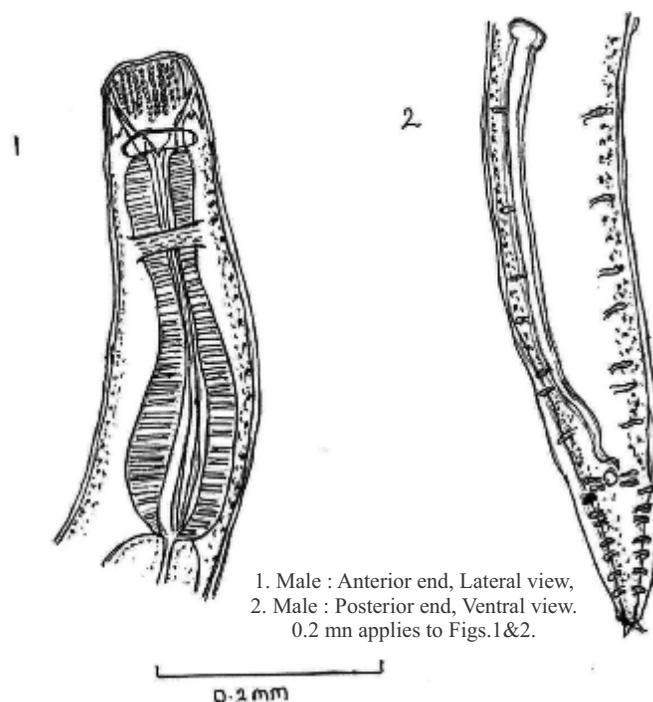
The length of the body is 3.25-3.45 mm and has a maximum body diameter of 0.14 mm. The tail is provided with a short narrow caudal alae. The caudal alae are supported by fourteen pairs pedunculated and two sessile papillae. The disposition of the papillae is seven precloacal, two adcloacal and seven post cloacal. The papillae are grouped into two each and last two sessile. There is only a single spicule measuring 0.33-0.38 mm. The gubernaculum is absent. The tail is short and bifurcated at its tip measuring 0.09-0.25 mm.

RESULTS AND DISCUSSION

The genus *Camallus* was created by Pearse (1933) who described *C. anabantis* from *Anabas testudineus*. In the original description *Camallanus anabantis* by Pearse (1933). There is a marked discrepancy. He described male specimens as having trident and females, which were smaller devoid of tridents. A comparison for the study made by Pearse (1933) and Yeh (1960) elucidates that Pearse dealt with two distinct species. One with tridents and without tridents. Yeh (1960) also found a mixed infection of number of species of Camallanidae in single host.

The author agrees with Yeh (1960), according to whom certain evolutionary characters must be taken into consideration for assigning a generic status. Yeh (1960) considers that spicules have a little systematic importance since they are often hardly visible because of very weak and light sclerotization and sometimes they are missing. According to him buccal capsule in family Camallanidae has remarkable evolutionary significance due to their heavy sclerotization, consistency and non variability with slow rate of evolution. A fundamental diagnostic feature of a particular genus. Considering points Yeh (1960) the present worm is included under the genus *Zeylanema*. Yeh (1960) erected the genus *Zeylanema* on the basis of the presence of ridges or beaded structures in the buccal capsule. According to him all the species of *Camallanus* with beaded or toothed ridges are placed under the genus of *Zeylanema*. Thus at the present the valid species of *Zeylanema* are as under *Z. sweeti* (Moorthy, 1937 and Yeh, 1960). *Zeylanema unispiculus* (Khera, 1954 and Yeh, 1960). *Z. pearsii* (Yeh, 1960). *Z. kulasiririi* (Yeh, 1960), *Z. bahi* (Sahay and Sinha, 1965). *Z. mastacembeli* (Sahay and Sinha, 1965). *Z. spinosa* (Furtado, 1965). *Z. magna* (Khan and Yaseen, 1969). *Z. ophiocephali* (Shendge and Deshmukh, 1977).

The present worm is closest to *Z. ophiocephali* in having adcloacal papillae as size of spicule. It's also closest to *Z. mastacembeli* in having adcloacal papillae. But it differs from the other species. In view of the difference cited above the author regards form as new and named as *Zeylanema sailuensis* n.sp.



Figs. 1&2 *Zeylanema sailuensis* sp.

Host : *Ophicephalus striatus*
Habitat : Intestine
Locality : Sailu, Maharashtra, India.

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