

A REVISION OF THE GENUS *CAMALLANUS* RAILLIET ET. HENRY, 1915 (NEMATODA:
CAMALLANIDAE) FROM FRESH WATER TELEOST.

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ABSTRACT

A survey of nematode parasites from freshwater fish was carried out during June 2014 to May 2015. It is presented on the basis of the taxonomic evaluations to freshly collected fishes from various dams, lakes, river streams, etc. The present communication deals with a detail report on *Camallanus Generai. Camallanus jadhvae* (Jadhav and Khadap, 2003), *C. mastacembelli* (Agrawal, 1967), *C. thaparus* (Gupta, 1968), *C. sauridai* (I. Rajalaksmi, 1994), *C. Trichuris* (Basiruah and Rahman 1972), *C. bispiculus* (IRajalaksmi, 1986), *C. Khalili* (Arya, 1987).

KEY WORDS: *Camallanus Sp.*, Freshwater Fishes, Nematode Parasites

INTRODUCTION:

Tape worm are capable of infectiong many fishes. Fish is a human diet hence the humans get automatically infected at the time of eating the infected fishes. *Camallanus sp.* nematode parasites found in freshwater fishes. The genus *Camallanus* this genera fist introduces by Raillet et. Henry 1915. Latter on few scientists added few new species in this genera. i.e *Camallanus jadhvae* (Jadhav and Khadap, 2003), *Camallanus gutai* (Gupta 1992), *C. mastacembelli* (Agrawal ,1967) *C. thaparus* (Gupta, 1968) *C. sauridai* (I. Rajalaksmi, 1994), *C. Trichuris* (Basiruah and Rahman 1972), *C. bispiculus* (IRajalaksmi, 1986), *C. Khalili* (Arya, 1987)

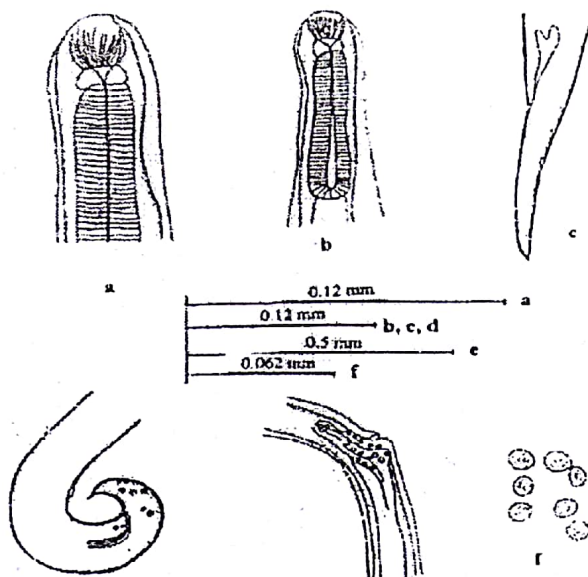
MATERIALS AND METHODS

The male and female nematodes described in this paper collected from the intestine of freshwater teleost obtained from the various dams ,lakes ,river streams etc. The nematode were fixed in hot 70% alcohol. The worm were later preserved in fresh 70% alcohol to which 10% glycerine was added. The specimen 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.

SPECIES IDENTIFIACATION:

Six species of Genera *Camallanus* are i.e *C. jadhvae* , *C. gutai* , *C. mastacembelli* *C. thaparus* , *C. saurida* , *C. Trichuris* *C. bispiculus* , *C. Khalili*

I-TYPE SPECIES : *CAMALLANUS JADHVAE* (Jadhav and Khadap, 2003)



Description : Body small thin, buccal capsule consist two valves 13 th longitudinal ridges of varying size in both the sexes. A strongly ring present at the junction of valves and oesophagus. Tridents or rods associated with buccal capsule. Oesophagus Consisting of short anterior muscular and long posterior glandular part.
Male: Body 4.26 to 4.34 mm long 0.96 to 0.95 wide. Buccal capsule long anterior club shaped. The total length of the oesophagus 0.918 to 0.944 mm long. Tail conical 0.064 to 0.125, in length. Caudal alae well developed, 9 pair of caudal papillae spicules are sub equal.

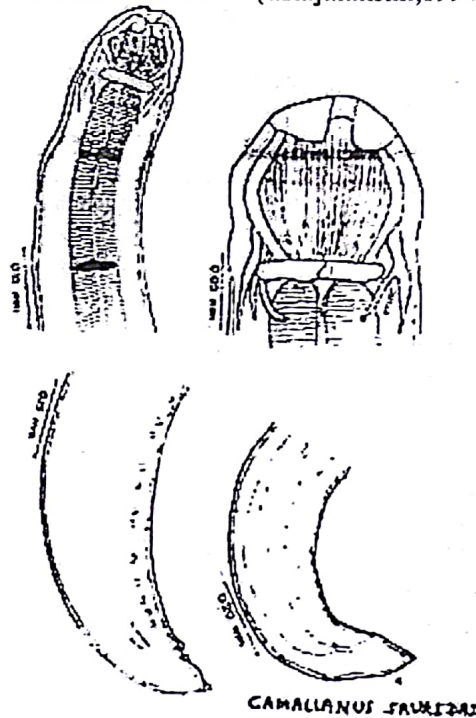
Female: Female is longer than male. It measures 6.46 mm in length. Oesophagus measures 0.91 mm in length. Valva anterior to the middle of the body. Tail measures 0.237 to 0.251 in length. Eggs are oval to rounded in shape and measures 0.017×0.022 in length and 0.016×0.017 in breadth.

Host : *Ophicephalus punctatus* (Bloch)

Habitat : Intestine

Locality : Aurangabad

II-TYPE SPECIES : *CAMALLANUS SAURIDAI* (I. Rajalakshmi, 1994)



Description : Body is medium sized, widens anteriorly and tapers down posteriorly.

Cuticle is thin. The bivalve buccal capsule is provided with longitudinal ridges of varying lengths. The dorsoventral slit like mouth extends posteriorly across the cuticular basal ring of the buccal capsule and open into the anterior part of the oesophagus. Trident very prominent with three unequal prongs. Ends of prongs blunt. Oesophagus is anterior muscular and posterior glandular portion. Longitudinal ridges are 21 in the buccal capsule. Tail conical in both sexes.

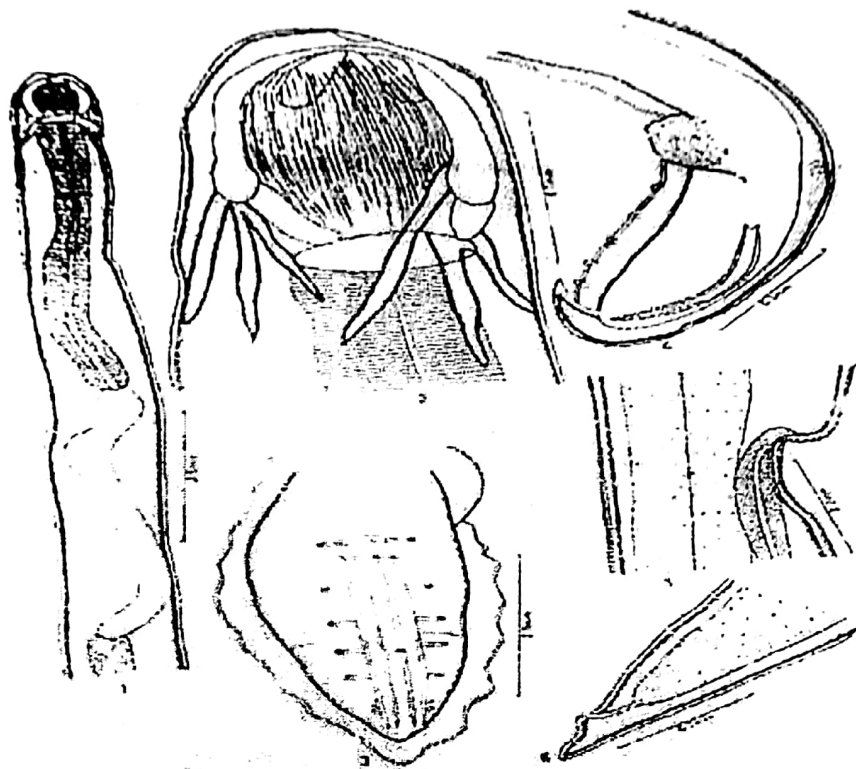
Male : Body is 9-11 mm in length and 0.204 mm in width. Buccal valves excluding posterior chitinous ring. Oesophagus which follows buccal capsule. Trident's lateral prongs 0.120-0.132 in length and middle prong 0.132-0.144 in length. Tail is conical measures 0.156-0.168. Spicule equal. Caudal papillae 12 pair all preanal and sessile.

Female:

Body is 12-13 in length with a maximum width of 0.480-0.504. Buccal valve excluding posterior chitinous ring are present. Oesophagus anterior portion muscular and posterior portion glandular length. Nerve ring is located 0.396-0.408 from anterior end. Tail is conical 0.132-0.144 long. Vulva pre-equatorial, 5-6 long from anterior end. Eggs are small measure 0.006-0.012.

Host : *Mastacembelus armatus* (Lacep)

Habitat : Intestine

III-TYPE SPECIES : *CAMALLANUS BISPICULUS* (I.Rajyalakshmi et. al)

Description:

Body medium size Buccal capsule consists of two valves each with a large number of spiny longitudinal ridges of varying lengths in both sexes. A strong chitinous ring present at the junction of valves of buccal capsule and oesophagus. Tridents or rods associated with buccal capsule well developed and unequal. Oesophagus with an anterior muscular portion and a posterior glandular portion vulva post equatorial cuticle thin and finely striated Striations . Gunenaculum absent.

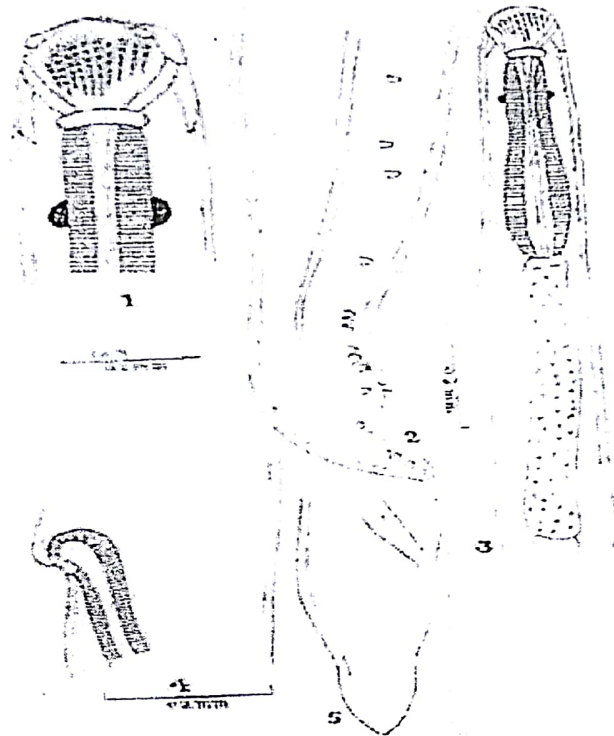
Male: The male measure 11-30 in length and 0.228-0.288 in eithd in the anterior region 0.252-0.312 in the middle region and 0.1321-0.144 in the posterior region Dorsoventral diameter of head 0.132-0.144 mm Tridents unequal middle prong 0.084-0.096 long. Lateral prongs 0.072-0.084 a chitinous ring is long .Nerve ring is 0.312 -0.372 and excretory pore 0.384-0.396 from the anterior extremity.

Caudal alae well developed extending up to end of tail Seven pair of caudal papillae of which 5 pair of pedunculated post anal papillae and 2 pair of sessile anal papillae spicules equal alate broad at anterior and narrow sharply pointed at posterior end .

Female: Female measures 12-17 in length and 0.180-0.0312 in width .valves of buccal capsule wider than long and 0.084-0.120 long Tridents unequal middle prong long nerve ring at 0.300-0.456 and excretory pore 0.336 -0.504 from anterior end Valva post equatorial without prominent lips at 7.440 -8.898 from posterior end .Egg measure 0.024-0.036 in diameter.

Host : *Anguilla angilla*

Habitat : Intestine

IV-TYPE SPECIES : *CAMALLANUS KHALILI* (Arya., 1987)

Description : Worms medium sized, pale white elongated cylindrical and attenuated posteriorly cuticular striations fine mouth surrounded by six papillae two lateral and four submedian in position. Buccal capsul sclerotized and formed by two buccal valves each containing 10 longitudinal ridges in male. Buccal capsul cup-shaped, tridents is variable subequal and hammer shaped prongs of the tridents are observed. Nerve rings at 0.18-0.185 in male and 0.18-0.20 in female from anterior end respectively.

Male: Male was short having the Length 13.0 to 17.0 mm. Spicule Non alate, anterior end broad and distal end blunt and 0.30-0.35 long Left spicule absent. Caudal papillae 16 pairs and pedunculate, 10 pair Pre 1 pair adclo and 5 pair postcloacal. Caudal alae well develop Tail 0.087-0.09 long and tapering with blunt end.

Female: Female was long 20.0-24.0 maximum thickness 0.22-0.29 vulva post equatorial at 6.0 to 6.8 from anterior end. Vagina posterior and muscular. Tail was 0.16 to 0.17 long and lanceolated.

Host : *Notopeterus notopterus* (Pallas)

Habitat : Intestine

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