

**ON A NEW NEMATODE, *Capillaria striata* N. Sp. FROM FRESH WATER FISH
Channa striatus (BLOCH)**

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ABSTRACT

Capillaria striata N. sp. was described from the intestine of a fresh water fish, *Channa striatus* (Bloch). It was distinguished from other congeneric species by spiny spicular sheath, mainly length of spicules (1.3-1.4) its surface covered by small spines and valvular lips not elevated.

KEYWORDS: *Capillaria striata*, *Channa striatus*, congeneric species

During a survey of nematode parasites, several male and female specimens of the genus *Capillaria* Zeder, 1800, were recovered from the intestine of the fresh-water fish, *Channa striatus* (Bloch), collected from the river Kharang crossing Village, Mohra (Bilaspur C.G.) of the several fishes dissected only eight fishes harboured with nematode parasites. A detailed study of those worms revealed that they do not confirm to any known species of the genus and appear to constitute a new species

MATERIALS AND METHODS

The host *Channa striatus* was obtained from river Kharang crossing the village Mohra, Distt. Bilaspur (C.G.). Fishes were examined thoroughly for nematode parasites. Out of 37 fishes examined, only 8 were infected, in these 3 males & 6 females were observed.

Nematodes were fixed in hot 70% alcohol and were preserved in 10% glycerol. Two clearing media, glycerol & creosote were used in order to examine properly. All measurements are given in millimetres.

DESCRIPTION

Male is smaller than female. Body long mouth aperture small, oval surrounding by 6 minute cephalic papillae arranged in circlet. Oesophagus relatively long. Oesophagus divided into two parts, shorter anterior muscular oesophagus and a longer posterior glandular oesophagus. Anterior muscular oesophagus long in male. Nerve ring situated at border of first and second third of length of muscular oesophagus. Vulva situated at the level of oesophago-intestinal junction. Two medium-sized, wing-like cells present at oesophago-intestinal junction. Spicule well sclerotized distal end of spicule obtusely

conical to rounded. Cloacal opening subterminal, Tail end rounded.

Male

Length of body 10.9-11.2 respectively, width of the body 2.1-2.3. Head rounded measures 1.4-1.7 in diameter Mouth aperture small, oval, surrounded by 6 minute cephalic papillae. Oesophagus consist of two portion shorter anterior muscular oesophagus and measures 1.7-1.9 respectively and a longer posterior glandular oesophagus 1.9-2.2 respectively. Nerve ring encircling the muscular oesophagus and measures 1.2-1.4 from the anterior extremity. Spicules well sclerotized posterior half of spicule nonexpanded in holo type and some what expanded in paratype; distal end of spicule obtusely conical to rounded length of spicule 1.3-1.4, its surface covered by small spines. Cloacal opening subterminal, length of tail 1.7-1.9 from the posterior end.

Female

Length of body 14.2-14.7 respectively. Width of body 2.7-3.1. Head rounded measures 1.5-1.7 in diameter. Oesophagus consist of two portion anterior muscular oesophagus which is short and measures 1.9-2.3 and posterior glandular oesophagus which is longer and measures 2.4-2.7 respectively. Nerve ring encircling the muscular oesophagus at the border of third length of muscular oesophagus and measuring 1.4-1.7 from the anterior extremity. Distance of valva from anterior end 2.00-2.1 of the body. Vulva situated at level of oesophago-intestinal junction. Vulvar lips not elevated. Tail rounded 1.2-1.5 long.

DISCUSSION

The present form when compared to known forms the following facts are observed : The new form *Capillaria striata* n.sp. differs from all the known species. *Capillaria carioca* de Freitas

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and lent, 1935 ; Moravec F. 1987; *Capillaria catenata* van Cleave and Mueller, 1932, and *Capillaria petruschewski* (Schulzman, 1948); and *Capillaria gracile* (Bellingham, 1844) Nikolaeva and Naidenova, 1964; *Capillaria kabatai*. Inglis and Coles, 1963; *Capillaria cyprinodonticola* Huffman D.G, Bullock W.L. 1973; in the presence of well sclerotized spicules and absence of vulvar appendages.

The present new form also differs from the following known forms in the following characters :-

- (1) Size of spicules and spicules length.
- (2) Vulva position,
- (3) Position of excretory pore,
- (4) Structure of tail.

The present species shows resemblances to *Capillaria cichlasomae*; *Capillaria schmidtii* but differs in the position of spicules, length of body etc.

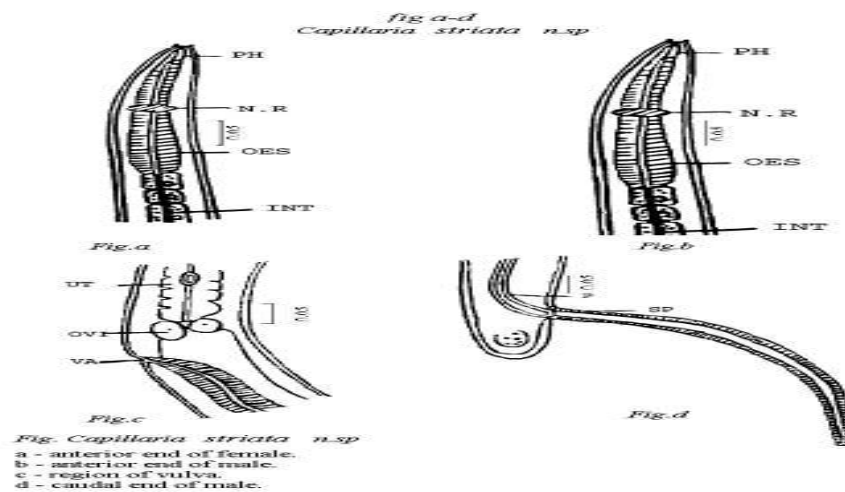
The comparison of new species *Capillaria striata* to some known forms are given below :-

Table: Comparison of *Capillaria striata* N. sp. with some known forms

All measurements are taken in mm otherwise stated .

MALE			
Characters	C-cichlasomae	C-schmidtii	C.striata N. sp.
Length	1.83	8.40-10.12	10.9-11.2
Thickness	0.030	0.07-0.08	2.1-2.3
Oesophagus	M 0.138	0.270-0.287	1.7 - 1.9
	G	5.83 - 7.41	1.9 - 2.2
Nerv ring	0.050	0.09-0.12	1.2-1.4
Spicules	0.068	0.08-0.092	1.3-1.4
Papillae	-	-	-
Tail	0.008	0.010-0.012	1.7-1.9
FEMALE			
Length	4.54	11.02-15.43	14.2-14.7
Thickness	0.050	0.10-0.13	2.7-3.1
Oesophagus	M 0.195	0.310-0.324	1.9-2.3
	G	6.52-9.38	2.4- 2.7
Nerv ring	0.075	0.11-0.12	1.4-1.7
Distt. of Value	0.098	0.024-0.084	2.00-2.1
Papillae	0.008	0.015-0.018	1.2-1.5

In the light of above discussion it is therefore, concluded that the present form is new to the genus *Capillaria* Zeder, 1800 and a new species *Capillaria striata* is erected.



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