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:

Nematodes, fish parasite , biodiversity, Chhattisgarh, India

Introduction:

The aim of present study was to provide a current survey of the species of nematode parasites found in fishes of Chhattisgarh namely Bilaspur region.During a survey of nemotode parasites, several male and female specimens of the genus Capillaria Zeder, 1800, were recovered from the intenstine of the fresh-water fish, Channa striatus (Bloch), collected from the river Kharang crossing Village, Mohra (Bilaspur C.G.) of the several fishes disected only eight fishes harboured with nematode parasites. A detailed study of those worms revealed that they do not cofirm to any known species of the genus and appear to constitute a new species

Material and Method:

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 in millimetres.

Description:

Male is smaller than female. Body long, mouth aperture small, oval surrounded by 6 minute cephalic papillae arranged in circlet.Oesophagus relatively

long.divided into two parts, shorter anterior muscular oesophagus and a longer posterior glandular oe

Result and 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 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 resemblences to Capillaria cichlasomae; Capillaria schmidtii but differs in the position of spicules, length of body etc.

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
Tail		0.008	0.015-0.018	1.2-1.5

Conclusion:

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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Reference:

HUFFMAN D.G., BULLOCK W.L. 1973 Capillaria cyprinodanticola sp. n, (Nematoda : Trichinellida) from the liver of Cyprinodontiform fishes of the Florida Keys. J. Parasitol. 59 : 260-263.

MORAVEC F. 1987: Revision of Capillariid nematodes (Subfamily-Capillariinae) parasitic in fishes studie CSAV No. 3, Academia, Parague, 141 pp.

MORAVEC F., T. Scholz & E. Mendoza Franco 1993 : Capillaria (Hepatocapillaria) cichlasomae sp.n., (Nematoda : Trichinellida) from the livers of the cichlid fish cichlasoma urophthalmus from Yucatan, Mexico.