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Prevalence and Intensity of Nematode Parasites Infecting the Fish *Anabas testudineus* in Loktak Lake

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Abstract

Nematode parasites of fish hosts of Manipur state have not far been studied proportionate to their importance to fishery. The present paper is based on the study of nematode parasite found in the fish Anabas testudineus of Loktak lake. A total of 480 fish were examined for nematode parasites and a total of four different nematode parasites were recorded.

Key words : Nematode, Loktak lake.

Studies related to helminthes parasites of fishes have been carried out in different parts of the world. Infection of fish with diverse form of parasite has been known Among the parasites infecting the fishes nematodes parasites are most common. Fish diseases due to nematode parasite are one of the important problems in fish culture and fish farming. The presence of nematode parasite upto a large extent is detrimental for a fish population consequently, imposes big loses to fish farmer. During the present study 480 specimen of *Anabas testudineus* were examined for nematode infection and out of which 421 specimen were infected with four different species of nematode parasites. Work of Yamaguti (1) related to the occurrence of helminth parasites in vertebrate host is of immense importance. Jha (2) studied the characterization of parasite fauna of fishes of Muzaffarpur, Bihar. Kar (3—5) made detailed study of the limnology and ichthyofauna of the water bodies of North-East (NE) India including diseases in fishes. Kar et al. (6) studied on the effect of length of fish on the occurrence of nematode and acanthocephalan parasites.

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Methods

Fishes of different sizes were routinely collected from Loktak lake in Bishnupur district of Manipur and brought to the laboratory in the polythene bags containing water of the same locality. Small fishes were killed by pithing and somewhat larger specimens by blow on the top of cranium. The external body surface and the internal body e.g. alimentary canal, liver, heart, kidney, gonads, swim bladder etc were thoroughly examined for the occurrence of parasites. The living worms were placed directly in warm 70% alcohol for fixation. An alternate methods was used for killing and stretching by immersing the worms for 0—1 minutes in glacial acetic acid, then preserved in 70% alcohol. Further the worms were cleared in lactophenol and mounted in glycerine gelly.

Results and Discussion

Out of 480 fish of *Anabas testudineus* examined 421 fishes were infected with four different nematode prasite viz., *Camallanus anabantis, Paraquimperia manipurensis, Spirocamallanus guberculus and Haplonema* sp. The prevalence of infection is highest in *Camallanus anabantis* (48.3%) and lowest in *Haplonema* sp. (6%). The intensity of infection is highest in *Spirocamallans guberculus* (2.6) and lowest in *Haplonema* sp (1).

Table 1. Prevalence and intensity of nematode parasite in the fish *Anabas testudineus.*

Name of the parasite	Fish host	No. of fish examined	No. of fish infected	No. of parasite found	Prevalence (%)	Intensity
Camallanus anabantis	*Anabas testudineus*	480	232	320	48.3	1.37
Paraquimperia manipurensis	*Anabas testudineus*	480	98	136	20.4	1.38
Spirocamallanus guberculus	*Anabas testdineus*	480	12	32	2.5	2.6
Haplonnema sp.	*Anabas testudineus*	480	3	3	0.6	1

Table 1 shows the prevalence and intensity of the parsite.

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