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ZOOLOGY

## INCIDENCE OF HELMINTH PARASITES IN FRESH WATER FISHES FROM SINA KOLEGOAN DAM, DIST. OSMANABAD (MS) INDIA

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### Abstract

This study was conducted to determine the incidence of helminth parasitic infections of Fresh water fishes from Sina kolegoan Dam, Dist. Osmanabad (MS). Total 286 samples of fresh water fishes were collected from different sites of Dam, during the month of June 2008 to May 2010. There were about 289 helminth parasites found in collected samples. The encountered parasitic species includes *Senga* spp., *Circumoncobothrium* spp., *Azygia* spp., *Isoparorchis* spp., *Camallanus* spp.

**Keywords:** Incidence, Fresh water fishes, Helminth parasites, Sina kolegoan Dam

### Introduction

Sina kolegoan Dam is an irrigation project with storage on Sina River near village Rosa Ta.Paranda.Dist.Osmanabad. It has 10200 Ha irrigation areas, side of area like Paranda, Karmala and Anala. It has catchment area 5565.00 sq.km and having average rainfall 24.30 inches. The Gross annual utilization about 104.93.

The fisheries of India brought to be exceedingly valuable as affording an inexhaustible supply of animal food, for large number of people. These fishes are parasitized by helminth parasites, which reduce the food value as they provide the highly nutritious food. The environmental factors including climate, season and rainfall play an important role in the development of helminth parasites. Due to the environmental factors the natures of helminth infection of different group of live stock have been studied by workers from particular region of the country.

Helminth infections are major parasitic disease in India which causes anemia, dysentery, diarrhoea, elephantiasis, diphyllbothriasis, taeniasis, hydatid cyst. They adversely affect the general health and productivity of adults while mental and physical growth of children, especially suffering from malnutrition since helminthic infections are usually asymptomatic and dramatic in morbidity as they not regarded serious disease.

The infection helminth parasites are found in numbers of fresh water fishes. Due to immense infection enhance the rate of mortality therefore in order to avoid loss of economical, nutritional and medicinal value also to preserve endangered species of fishes. The study is an important specially helminth parasites which also liable to spread their effect upon human beings.

### Materials and Methods

The fishes were collected from different sites of Sina kolegoan Dam Osmanabad (MS) during year June 2009 to May 2010. Collected worms were washed in distilled water to render them free from intestinal contents. The cestodes & trematode were fixed in Hot 4% formalin where as Nematodes were preserved in 10 % glycerol. Borax carmine and Haematoxyline stains were used for Trematode and Cestodes. Keys of Yamaguti (1958),(1959), (1961) were used for the identification of helminths. Drawings are made with the aid of Camera Lucida.

### Result and Discussion

Out of 286 samples examined 166 found positive for various Helminth parasites (Table 1).The parasitic species recorded from fresh water fishes includes cestodes ( *Senga* spp., *Circumoncobothrium* spp.), Trematode (*Azygia* spp., *Isoparorchis* spp.), and nematode (*Camallanus* spp.). Incidence of Cestode was found higher followed by trematodes and nematodes.

The above results were compared with many earlier workers as Anderson, R.M. (1976) who worked on seasonal variation in the population dynamics of *Caryophyllaeus luticeps*, Dobson, A.P. (1985) studied the competition between the parasites, Thomas, J.D. (1964) worked on the population dynamics of digenetic trematode in vertebrates. Availability of food and feeding activity, distribution and environment of host, are influence the parasitic development. Kennedy, (1978) and Lawrence (1970). The parasites causes depletion of the nutritional contents in host's body and results in the low productivity, loss in fish industry (Hiware, 1999).

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Table 1: Incidence of Helminth parasites in fresh water fishes from Sina Kolegoan Dam

Sr.No.	Parasitic species	No. of sample found +ve	Locality
1	<i>Senga</i> spp.	98	Intestine
2	<i>Circumoncobothrium</i> spp.	80	Intestine
3	<i>Azygia</i> spp.	30	Stomach
4	<i>Isoparorchis</i> spp.	34	Gall bladder
5	<i>Camallanus</i> spp.	25	Intestine
	Total	289	

Thus the present study gives the idea of damage caused by these helminth parasites to the fish economy. This study also adds some data regarding the taxonomy and diversity of parasites so that it will provide them preliminary literature to the researchers in the field of fish parasites.

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