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INCIDENCE OF INFECTION OF CESTODE PARASITE, *AITODISCUS*[19] IN FRESH WATER FISH, *CHANNA PUNCTATUS* IN JALAUN (U.P.) INDIA

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ABSTRACT

The present investigation deals with the incidence of infection of cestode *Aitodiscus jalaunensis*[19] parasitizing *Channa punctatus* of Jalaun (U.P.) India. The incidence of infection were recorded in summer season (73.75%) followed by winter season (51.25%) whereas low in monsoon season (48.75%).

Figure : 01 References : 20 Table : 01

KEY WORDS : *Aitodiscus jalaunensis*[19], *Channa punctatus*, Incidence of infection, Jalaun.

Introduction

Bundelkhand region is very rich for piscian fauna. Few villagers in district Jalaun use fish in their daily diet. Fish are important components of ecosystem from ecological, medicinal, nutritional and economical point of view but most of the fish are infected by helminth parasites, which reduce food value. Parasitic diseases are among major public health problems of tropical countries including India. They infect man and also invade domestic animals and wildlife. Notable contributions were made in population dynamics of helminth parasites by earlier researchers[1-10,13-16,18-19]. Result of present study therefore is expected to be helpful for future research on helminth parasites of fresh water fish. The present study was designed to evaluate the prevalence of cestodes genus, *Aitodiscu*[19] parasitizing fresh water fish, *Channa punctatus.*

Materials and Methods

In this study, intestines of *Channa punctatus* were examined for cestode infection during the period Oct. 2008 to Nov.2010 from different localities of Jalaun (U.P.) India. Cestodes were collected, preserved in 5% formalin, dehydrated in various alcoholic grades, stained in Mayer's Hemalum, cleared in xylol and mounted in Canada balsum. These cestodes were prepared for identification by standard methods[13,20]. On taxonomic observations identified cestode were *Aitodiscus jalaunensis*[19]. Obtained data were recorded, processed for study of incidence of infection.

Result and Discussion

Results of the studies on incidence of infection of cestode, *Aitodiscus jalaunensis*[18] from *Channa punctatus* are presented (Table-01 and Fig. 01). The incidences of infection of *Aitodiscus jalaunensis*[18] were recorded in summer (73.75%) followed by winter season (51.25 %.) whereas infection was low in monsoon (48.75%). It was reported that temperature, humidity, rainfall, feeding habits of host, availability of infective host and parasite maturation were responsible for influencing the parasitic infections[13]. Feeding activity of the host is one of the reason for seasonal fluctuation of infections[8,11] reported high prevalence of parasits in the Indian Major Carp, *Labeo rohita*

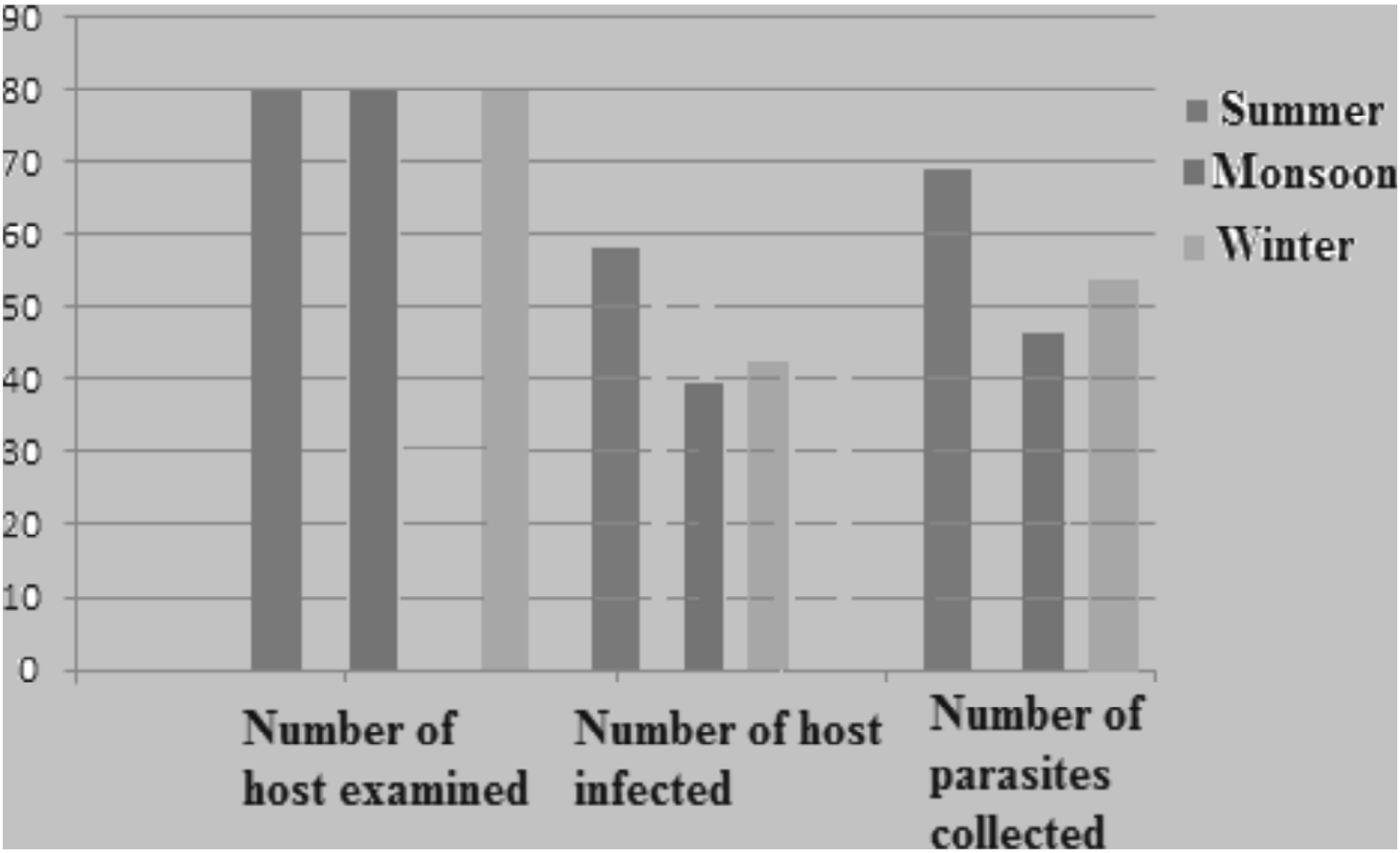

Fig. 01 : Incidence of infection of *Aitodiscus jalaunensis*[18] from *Channa punctatus* during Oct. 2008 to Nov. 2010.

TABLE- 1: Incidence of infection of *Aitodiscus jalaunensis*[19] in *Channa punctatus* .

Season	Number of host examined	Number of host infected & their prevalence	Number of parasites collected
Summer	80	59 (73.75%)	69
Monsoon	80	39(48.75%)	45
Winter	80	41(51.25%)	54

in Rajshahi, Bangladesh and highest prevalence (75%) and mean density (10.44) of parasites were found in the month of December and lowest (20%) in the month of February. There was high incidence of infection of *Senga* sp., *Gangesia* sp., *Proteocephalus* sp. Infected to *Channa* sp. In summer season (76.66%), 73.33% & 70.00%) followed by winter (65.21%, 52.17% & 56.52%) whereas infection was low in monsoon (36.84%, 26.31% & 31.57%)[6]. The incidence of infection of *Senga microrostellata*[8] their[17] incidence of infection were recorded (80.00%) in summer season followed in winter (52.50%) where as low (37.50%) in monsoon season. Workers[19] reported that incidence of infection of *Mastacembelus armatus*[12] highest prevalence during summer season and lowest in rainy season and other researchers[15] reported that high incidence of infection were recorded in winter season (78.33%) followed by monsoon season (63.33%) whereas low in summer season (46.66%).

On the basis of above discussion it can be concluded that the incidence of infection of cestode, *Aitodiscus jalaunensis*[18] from *Channa punctatus* in district Jalaun (U.P.) India shows higher incidence of infection in summer season (73.75%) followed by winter season (51.25%) whereas low in monsoon season (48.75%).

Conclusion

Recorded data of present study show highest incidence of infection of cestodes in summer season followed by winter season whereas low in monsoon season due to environmental factors, breeding factor and feeding habitat influence of the seasonality of parasitic infection either directly or indirectly.

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