VOLUME - 12, ISSUE - 11, NOVEMBER - 2023 • PRINT ISSN No. 2277 - 8160 • DOI : 10.36106/gjra

Original Research Paper

Zoology

PREVALANCE OF PISCEAN CESTODE, LYTOCESTUS IN WALKING CATFISH FROM KHANDESH REGION MAHARASHTRA INDIA

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ABSTRACT The present investigation deals with the prevalence of Piscean cestode lytocestus, parasitizing Clarias batrachus from Khandesh region Maharashtra India. The prevalence was recorded in winter season (51%) followed by monsoon season (45%) whereas low in summer season (33%).

KEYWORDS : Clarias batrachus, Khandesh region, prevalance

INTRODUCTION

Very scanty work on the cestode parasite of catfish of Khandesh region of Maharashtra was carried out. 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. They infect man and also invade domestic animals and wildlife. Notable contributions were made in population dynamics of helminth parasites by earlier researchers. The present study was designed to evaluate the prevalence of cestodes, Lytocestus parasites parasitizing fresh water walking catfish, *Clarias batrachus*.

MATERIALS AND METHODS

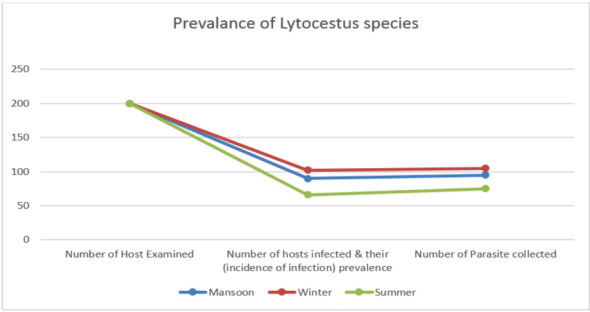
In this study, intestines of *Clarias batrachus* were examined for cestode infection during June 2020 to May 2022 from different localities of Khandesh Region of Maharashtra India. Cestodes were collected, preserved in 5% formalin, dehydrated in various alcoholic grades, stained in Mayer's Hemalum, cleared in xylol and mounted in Canada balsam. These cestodes were prepared for identification by standard methods**.** Obtained data were recorded, processed for study of prevalance.

RESULT AND DISCUSSION

Infection of lytocestus from *Clarias batrachus* are presented (Table 1, Fig. 1). The prevalance of Lytocestus species were recorded in winter (51%) followed by monsoon season (45%) whereas infection was low in summer (33%). 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. Feeding activity of the host is reason for seasonal fluctuation of infections. Workers reported high prevalence of parasites in the Indian Major Carp, *Labeo rohita* 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% and 70.00%) followed by winter (65.21%, 52.17% and 56.52%) whereas infection was low in monsoon (36.84%,26.31% 31.57%). The incidence of infection of Senga microrostellata and their incidence of infection were recorded (80.00%) in summer season followed in winter (52.50%) where as low (37.50%) in monsoon season. Parasitologists reported that incidence of infection of *Mastacembelus armatus* highest prevalence during summer season and lowest in rainy season. High incidence of infection was recorded in winter season (78.33%) followed by monsoon season (63.33%) whereas low in summer season (46.66%). High incidence of infection was recorded in summer season (73.75%) followed by winter season (51.25%) whereas low in monsoon season (48.75%).

Table- 1: Prevalance of Piscean cestode lytocestus species from walking catfish Clarias batrachus during June 2020 to May 2022

Season	Number of Host Examined	Number of hosts infected & their (incidence of infection) Prevalence	Number of Parasite collected
Mansoon	200	90 (45%)	95
Winter	200	102(51%)	105
Summer	200	66(33%)	75



CONCLUSION

On the basis of above discussion, it can be concluded that the prevalance of cestode, Lytocestus species from Clarias batrachus in Khandesh region is higher in winter season (51%) followed by monsoon season (45%) whereas low in summer season (33%). Recorded data of present study show highest incidence of infection of cestodes in winter season followed by monsoon season whereas low in summer season due to environmental factors, breeding factor and feeding habitat influence of the seasonality of parasitic infection either directly or indirectly. Result of present study therefore is expected to be helpful for future research on helminth parasites of fresh water fish in this area.

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