



ORIGINAL ARTICLE

Prevalence of Gastrointestinal Cestode Infestation in *Ovis bharal*

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ABSTRACT

This study determined the prevalence and species type of gastrointestinal Cestode infestation in sheep *Ovis bharal* at different collection sites of Nanded during February, 2017 to January, 2018. Overall helminth infestation prevalence was 45.83%. The seasonal variation of gastro-intestinal helminthic infection shows the higher prevalence occurs in Winter (70.83%) followed by Summer (42.70%) and Monsoon (23.95%). The identified species belonging to three genus were *Moniezia*, *Stilesia* and *Avitellina*. Results of present study clearly indicate that environmental factors and feeding habitat are influence the seasonality of parasitic infection either directly or indirectly.

Key words: Gastrointestinal Cestodes, Nanded, *Ovis bharal*, Prevalence

INTRODUCTION

Common internal parasitic infections of helminths are Cestode, Trematode and Nematodes occur in Sheep. Infections of these worms may cause considerable damage and great economic loss to the livestock industry due to malnutrition, decreased feed conversion ratio, weight loss, lowered milk production, and death in young ones. The present investigation deals with the study of prevalence of Cestode parasites of sheep *Ovis bharal* of Nanded District.

MATERIALS AND METHODS

In the present study 240 intestine of *Ovis bharal* were examined for Cestode infection during period of February, 2017 to January, 2018 from different localities of Nanded District, Maharashtra State India. Collected Cestodes were preserved in hot 4% formalin, stained with Borax carmine, dehydrated in ascending grades of alcohol, cleared in xylene, mounted in D.P.X. These Cestodes were identified by standard methods. On taxonomic observations the Cestodes are identified as *Moniezia sp.*, *Stilesia sp.* and *Avitellina sp.* Obtained data were recorded; processed for study of seasonal variation.

RESULTS AND DISCUSSION

Results of present study on incidence of Cestodes of *Capra hircus* are presented in Table 01& 02; Figure 1&2. Three species of cestode parasites were recorded as *Moniezia sp.*, *Stilesia sp.* and *Avitellina sp.* It was found that, the higher prevalence occurs in Winter (70.83%) followed by Summer (42.70%) and Monsoon (23.95%) because of easy dispersal of larvae in pasture resulting is increased in contact with the host and the parasites. Among the Cestode parasites found the maximum incidence occurs is of *Moniezia sp.* followed by *Stilesia sp.* and *Avitellina sp.* respectively. Results of present investigation indicate that environmental factors and feeding habitat are influence the seasonality of parasitic infection either directly or indirectly.

Table 1: Prevalence Gastrointestinal of Cestode Parasites of *Ovis bharal* during February 2017 to January 2018

Seasons	No. of the host Examined	No. of the host Infected	Incidence %
Summer, (Feb.,2017-May,2017)	96	41	42.70%
Monsoon (June, 2017 –Sept., 2017)	96	23	23.95%
Winter (Oct.,2017- Jan., 2018)	96	68	70.83%
Total	288	132	45.83 %

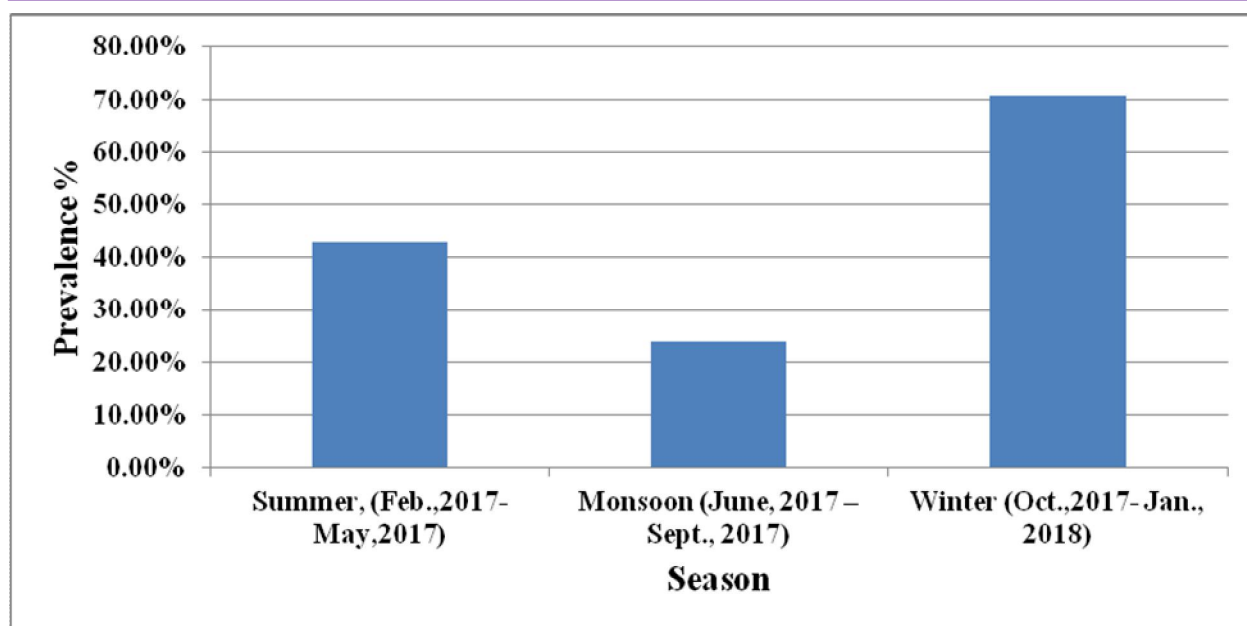


Fig.1: Prevalence Gastrointestinal of Cestode Parasites of *Ovis bharal* during February 2017 to January 2018

Similar finding viz. high prevalence of *Trichuris* sp. are recorded in the month of December, 2008 and November, 2009 i.e. 82.8% and 85.0% respectively followed by in the month of March, 2009 and February, 2010 i.e. 60% and 70% respectively where as low prevalence are recorded in the month of August, 2008 and July, 2009 i.e. 50% and 31.5% respectively were recorded by Padwal 2011. Shukla, *et. al.*, 2011 reported high prevalence of *Raillietina* parasite in winter season followed by summer season and low in rainy season in *Gallus gallus domesticus* at Ahmednagar region. Bhure and Nanware, 2013 studied high prevalence of *Moniezia* sp. is 83.12% in winter (83.12%), followed by Summer (61.87 %) where as low in Monsoon (32.50 %). Bhure et al., 2017 reported high incidence of infection was recorded in Monsoon season (77.50 %) followed by winter season (62.85%) whereas infection was low in summer season (32.50%) in *Capra hircus*.

CONCLUSION

In the present study, recorded data shows high incidence of infections of all the cestode species were recorded in winter (Oct., 2015- Jan., 2016) followed by summer (Feb., 2016-May, 2016) where as low in monsoon season (June, 2015 –Sept., 2015). The results clearly indicate that environmental factors and feeding habitat are influence the seasonality of parasitic infection either directly or indirectly.

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