



POPULATION DYNAMICS OF BUNOSTOMUM TRIGONOCEPHLUM (RUD, 1808)(NEMATODE) IN CAPRAHIRCUS FROM AURANGABAD REGION (M.S.)INDIA

Nirmale M. S.

Department of Zoology B.S.S.College Makani Lohara (M.S.), India.

ABSTRACT:

The present communication deals with population dynamics of *Bunostomiumtrigonocephalum* (Nematode) parasite in *Capra hircus* from different places of Aurangabad region during the year June 2019 to may2020 . A total (40.42%) Nematode parasites wear recorded from this region. The *Bunostomumtrigonocephlum* species reported in this investigation. The study summarizes the data percentage of incidence, intensity, density and index of infection of *Bunostomumtrigonocephalum* in *Capra hircus* during june 2019- May 2020 with effects related to environment factors.



KEYWORDS: population dynamics, *Capra hircus*, nematode etc.

INTRODUCTION

Goats are consumed by majority of people as one of the major food diet due to its food value but they get infected with Nematode parasites which cause considerable damage .Many workers have been investigated the Nematode parasites from goat in India as well as other part of country. In India the workers such as K.C.Pandey , Md. Hafeez, Shinde and Jadhav working on population Dynamics, Incidence , Intensity and density of Nematode parasites from goat . Population dynamics of Nematode parasites in *Capra hircus* was undertaken to investigate the innate factors such as seasons , temperature and humidity . The present investigation included application of statistical method to understand the distribution of *Bunostomumtrigonocephlum* (Nematode) population level for three seasons i.e. Monsoon, Winter and Summer during the year of june 2019 to May 2020

MATERIALS AND METHOD

The intestine of *capra hircus* wear collected from various places at Aurangabad region .intestine were examined for observation for nematode parasites. The collected worms were made with the aid of camera lucida and identified species as *Bunostomiumtrigonocephlum*.

Population dynamics of *Bunostomumtrigonocephalum* were determined by fallowing formulae:

$$\text{Incidence of infection} = \frac{\text{Infected host} \times 100}{\text{Total host examined}}$$

Intensity of infection= $\frac{\text{No.of parasites collected in sample}}{\text{No. of infected host}}$

Density of infection = $\frac{\text{No of parasites collected in sample}}{\text{Total host examined}}$

Index of infection = $\frac{\text{No. of host infected} \times \text{No. of parasites collected}}{(\text{Total host examined})^2}$

RESULTS AND DISCUSSION

Table 1: Population dynamics of Bunostomumtrigonocephalum (Nematode) parasite of Capra hircus from Aurangabad region during monsoon season

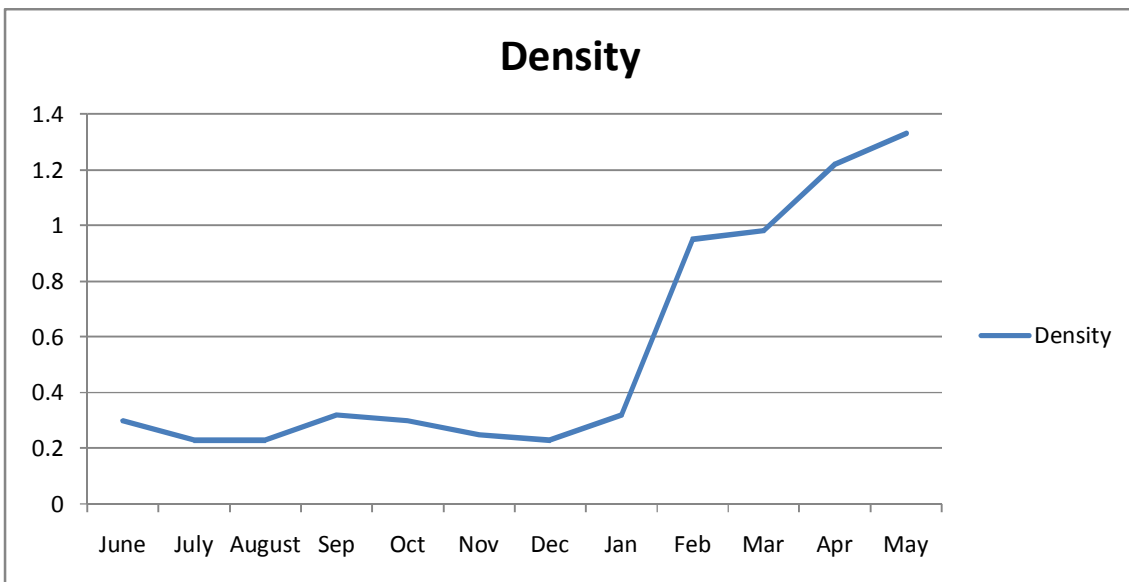
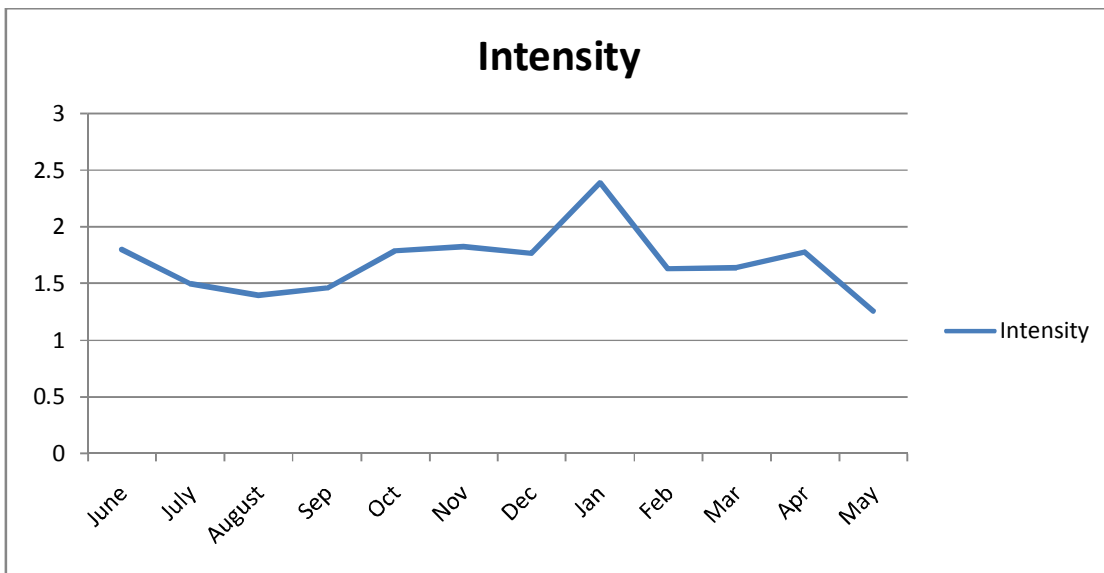
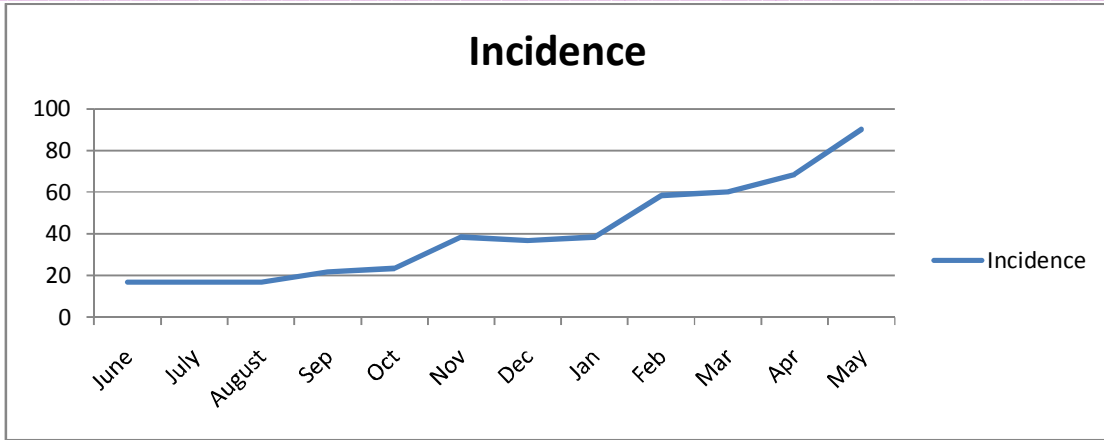
Name of host	Month	No. host examined	No. of host infected	Total no. of parasites collected	Incidence	Intensity	Density	Index of infection	Habitat	Locality
<i>Capra hircus</i>	June	60	10	18	16.66	1.8	0.3	0.05	Intestine	Aurangabad
<i>Capra hircus</i>	July	60	10	15	16.66	1.5	0.23	0.04	Intestine	Khultabad
<i>Capra hircus</i>	August	60	10	14	16.66	1.4	0.23	0.04	Intestine	Sillod
<i>Capra hircus</i>	Sep	60	13	19	21.67	1.46	0.32	0.07	intestine	Gangapur

Table 2: Population dynamics of Bunostomumtrigonocephalum (Nematode) parasite of Capra hircus from Aurangabad region during winter season

Name of host	Month	No. host examined	No. of host infected	Total no. of parasites collected	Incidence	Intensity	Density	Index of infection	Habitat	Locality
<i>Capra hircus</i>	Oct	60	14	25	23.33	1.79	0.3	0.05	Intestine	Aurangabad
<i>Capra hircus</i>	Nov	60	23	42	38.33	1.83	0.25	0.04	Intestine	Khultabad
<i>Capra hircus</i>	Dec	60	22	39	36.67	1.77	0.23	0.04	Intestine	Sillod
<i>Capra hircus</i>	Jan	60	23	55	38.33	2.39	0.32	0.07	intestine	Gangapur

Table 3: Population dynamics of Bunostomumtrigonocephalum (Nematode) parasite of Capra hircus from Aurangabad region during summer season

Name of host	Month	No. host examined	No. of host infected	Total no. of parasites collected	Incidence	Intensity	Density	Index of infection	Habitat	Locality
<i>Capra hircus</i>	Feb	60	35	57	58.33	1.63	0.95	0.55	Intestine	Aurangabad
<i>Capra hircus</i>	Mar	60	36	59	60.00	1.64	0.98	0.59	Intestine	Khultabad
<i>Capra hircus</i>	Apr	60	41	73	68.33	1.78	1.22	0.83	Intestine	Sillod
<i>Capra hircus</i>	May	60	54	68	90.00	1.26	1.33	1.02	intestine	Gangapur



The study indicates that the total 720 host were examined, of which 484 harbored with *Bunostomumtrigonocephalum* (Nematode)infection. It was seen that the percentage of nematode infection shows increase from February to May with its peak in May. The seasonal variation of nematode infection shoes the maximum infection i.e.257 parasites occurred in summer season (69.17%), where a lower infection 66 parasites in mansoonseason(17.32%). The data after subjecting to statistical analysis shows some features, which is discussed below. The percentage of infection of nematode exhibit and increase from February to May with a peak in May .this phenomenon may be attributed to the fact that the temperature slowly start rising above 20c up to the may the tempreture become reach up to 40c due to this raising the temperature the life cycle of parasite growing rapidly. The ecological factors such as distribution and environment of host the diet and mode of feeding the adaptability of parasites provides the host specificity for a particular host species at particular site as well as high prevalence occur in particular season.

CONCLUSION

The study concluded that the occurrence of *Bunostomumtrigonocephalum*(Nematode) infection was a host specific as well as the high prevalence of infection occurred in summer fallowed by winter and mansoon season.

ACKNOWLEDGEMENT

The authors are sincerely acknowledged to B.S.S.CollegeMakani for providing necessary facilities during this works.

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