

**PREVALENCE OF INTESTINAL HELMINTH  
PARASITES AMONG STUDENTS OF DYOLA SCHOOL  
OF BHAKTAPUR**

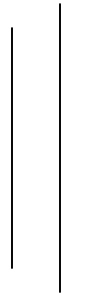


**A DISSERTATION**

SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS  
FOR THE DEGREE OF MASTER OF SCIENCE IN ZOOLOZY WITH  
SPECIAL PAPER PARASITOLOGY

**BY**

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**TO**

**CENTRAL DEPARTMENT OF ZOOLOGY  
INSTITUTE OF SCIENCE AND TECHNOLOGY  
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KIRTIPUR, KATHMANDU**

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**TRIBHUVAN UNIVERSITY**  
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**KIRTIPUR, KATHMANDU**  
**NEPAL**

**LETTER OF RECOMMENDATION**

It is my pleasure to mention here that **Mr. Punya Ram Sukupayo** has carried out and completed his dissertation work entitled "**PREVALENCE OF INTESTINAL HELMINTH PARASITES AMONG STUDENTS OF DYOLA SCHOOL OF BHAKTAPUR**" under my supervision and guidance. It is his original work and brings out useful result and findings in the concerned field.

I strongly recommend this dissertation work for approval for the partial fulfillment of the requirements for the master's Degree of Science in Zoology with special paper Parasitology.

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## **LETTER OF APPROVAL**

On the recommendation of super visor **Dr. Ranjana Gupta** this thesis of **Mr. Punya Ram Sukupayo** is approved for examination, and submitted to the Tribhuvan University in partial fulfillment of the requirements for M.Sc. Degree in Zoology with special paper Parasitology.

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CERTIFICATE OF APPROVAL

This thesis submitted by **Mr. Punya Ram Sukupayo** entitled "**PREVALENCE OF INTESTINAL HELMINTH PARASITES AMONG STUDENTS OF DYOLA SCHOOL OF BHAKTAPUR**" has been accepted for partial fulfillment of the requirements for the Master's Degree of Science in Zoology with special paper Parasitology.

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## ABSTRACT

A school-based study on intestinal helminth parasites was carried out in Dyola School, Bhaktapur-11 to determine the prevalence of intestinal helminth parasites among the students. The present study was conducted with respect to different caste groups, drinking and feeding habit, personal as well as environmental sanitation. Survey was conducted from 2<sup>nd</sup> November 2005 to 30<sup>th</sup> October 2006. A total of 186 stool samples were collected from Dyola School and microscopically examined. Out of 186 stool samples examined, the overall intestinal helminth prevalence was found to be 46.77%. The prevalence of *A. lumbricoides* was 34.94%, *T. trichiura* 24.73%, Hookworm 17.20%, *H. nana* 4.84% and *Taenia* spp. 2.69%. Most of the students of Dyola School belong to Dalit group (52.15%) and the highest infection (50.52%) was found among Dalit students. However, statistically no significant difference was found in infection rate among different castes ( $\chi^2=1.37$ ,  $p<0.05$ ). The parasitic infection was found higher in girls (51.69%) than boys (42.27%). But statistically the difference was found to be insignificant ( $\chi^2=1.67$ ,  $p<0.05$ ). Regarding the distribution of helminthic infection in different age, the highest positivity was encountered in the age group 8-10 years (56.76%). However, statistically no significant difference was found in infection rate among different age groups of children ( $\chi^2=3.23$ ,  $p<0.05$ ). From study among students from 9 different classes, from nursery to 8, revealed that the highest prevalence (56.52%) was found among the students of class 2. But statistically, it was also insignificant ( $\chi^2=4.62$ ,  $p<0.05$ ). From survey non-vegetarian students (47.31%), house without toilet (64.86%), house with domestic animals (50.00%), walking barefoot (61.62%) and taking meal without washing hand (49.11%) were found more infected. Students who used boiled water were found less infected (29.78%) than those who used non-boiled water (52.52%). Statistically, the difference was found to be significant ( $\chi^2=8.31$ ,  $p<0.05$ ). The high prevalence of intestinal

helminthes was found directly associated with unhygienic feeding habit, lack of knowledge, poor sanitation and poverty. Health education is advised to play a vital role in the control of helminthic and other parasitic infection.

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