

**INCIDENCE OF MALARIA IN AREAS ACCESSIBLE TO TAULIHAWA
HOSPITAL, KAPILBASTU, NEPAL**

**A THESIS SUBMITTED
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR MASTER'S
DEGREE OF SCIENCE IN ZOOLOGY WITH SPECIAL PAPER
PARASITOLOGY**

**BY
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**TO
CENTRAL DEPARTMENT OF ZOOLOGY
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KIRTIPUR, KATHMANDU, NEPAL**

2008

RECOMMENDATION

This is to recommend that the thesis entitled “**Incidence of Malaria in Areas Accessible to Taulihawa Hospital, Kapilbastu, Nepal**” has been carried out by **Mr. Til Bahadur Basnet** for the partial fulfillment of M.Sc. degree in **Zoology** with special paper **Parasitology**. This original work was conducted under my supervision. To the best of my knowledge, this thesis work has not been submitted for any other degrees.

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LETTER OF APPROVAL

On the recommendation of the supervisor, **Dr. Ranjana Gupta**, this thesis submitted by **Mr. Til Bahadur Basnet** entitled “**Incidence of Malaria in Areas Accessible to Taulihawa Hospital, Kapilbastu, Nepal**” is approved for examination and submitted to the Tribhuvan University as partial fulfillment of the requirements for Master’s Degree of Science in **Zoology** with special paper **Parasitology**.

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DECLARATION**

I hereby declare that the work presented in this thesis entitled “**Incidence of Malaria in Areas Accessible to Taulihawa Hospital, Kapilbastu, Nepal**” has been done by myself and has not been submitted else where for the award of any degree. All sources of information have been specifically acknowledged by reference to the authors or institution.

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ABSTRACT

The study was conducted from August 2006 to July 2007 only in the catchments areas of Taulihawa hospital which include 33 VDCs and 1 municipality. Total 705 blood slides were prepared from clinically suspected as malaria patients on the basis of chief complaints of febrile illness with chills and rigor or sweating or headache or muscular pain/malaise. Fever with clinical anaemia or splenomegaly and pyrexia of unknown origin were also included. 109 cases were found positive for malaria among total cases examined. The incidence of malaria in the study areas during the study period was 0.52/1000 population. The SPR among the study population was 15.42%. The incidence of malaria was high in male population (0.76/1000) than in female population (0.27/1000). It was due to out door exposure of males to mosquitoes than females. 96(88.07%) infections were due to *P. vivax*, while *P. falciparum* and *P. mix* were 10(9.2%) and 3(2.73%) respectively. *P. falciparum* infections were increasing from previous years. This indicates that there might be resurgence of malaria in coming years. The imported cases contributed 43(39.44%) and indigenous cases were 66(60.56%) indicating more attention for cross border monitoring of malaria cases in the country. The study showed its incidence among all the ages and both sexes. The most infections (25.33%) were found in age group 21-30 years and the least (4.05%) in >60 years. The API was also the highest in age group 21-30 years and the lowest in age group 0-10 years. Out of total cases, 4(3.67%) children of age <5 years were found to be infected that indicates a serious public health burden. The analysis of collected data revealed that the disease was a peak in July (27). Season-wise distribution showed that the highest numbers of cases were found in spring and summer. This was due to optimum environment for mosquito to breed. Data showed that all the castes were susceptible to malaria infection. The incidence of malaria was the highest in Baniya/Kalwar population (2.27/1000). Among study areas, the incidence of malaria in Dharampaniya VDC (1.68/1000) was the highest whereas SPR was the highest in Parshohiya VDC (21.42%). Literacy of positive cases was only 29.36%. Only 62% of total positive cases (109) were aware that the malaria was caused by mosquitoes bite. However, the awareness was high among positive cases, preventive measures applied were poor. Only 11.92% respondents used mosquito-net to avoid vector bite. 5.5% practiced of spraying. 6.42% used oil and interestingly 47.10% did not use any method. People recognized malaria as a significant disease. The present study shows that the crucial determinants were literacy, awareness of malaria transmission and preventive measures.

This thesis submitted by **Mr. Til Bahadur Basnet** entitled “**Incidence of Malaria in Areas Accessible to Taulihawa Hospital, Kapilbastu, Nepal**” has been approved as a partial fulfillment of requirements for the master’s Degree of Science in **Zoology** with special paper **Parasitology**.

EVALUATION COMMITTEE

Research Supervisor

Head of Department

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Date of Examination:.....

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KAPILBASTU DISTRICT

ZONE : LUMBINI





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SCALE 1 : 350000

7000 0 7000 14000 Meters

LEGEND

-  District Boundary
-  VDC Boundary
- MORANG** District Name
- BURHEL** VDC Name

HORIZONTAL DATUM

Spheroid Everest 1830
 Projection MUTM
 Origin Longitude 84° E., Latitude 0° N.
 False coordinates of origin 500 000 m. Easting, 0 m. Northing
 Scale Factor at Central Meridian 0.9999



PHOTO PLATES



i. Examination of patient to find out paler.



ii. Examination of patient to rule out



iii. Pricking of finger to derive few drops of blood



iv. Preparation of thick and thin blood films



v. Staining the blood films with giemsa stain,



vi. Examination of stained blood films to diagnose m