

MALARIA EPIDEMIOLOGY ALONG INDO-BANGLADESH BORDER IN TRIPURA STATE, INDIA

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Abstract. Malaria epidemiological surveys were conducted in 16 villages along the Indo-Bangladesh border in Tripura, northeastern India. Insecticide resistance among malaria vectors and chloroquine resistance in the parasite were also studied along with monitoring of vector density using light traps. The epidemiological data indicated that malaria incidence was highest during June-July and lowest during November. Examination of blood smears collected through door to door surveys indicated slide positivity rate (SPR) of 25.2% and that *Plasmodium falciparum* was the predominant parasite (slide *falciparum* rate of 22.3%). The incidence rates of *falciparum* malaria varied significantly among the age groups ($p < 0.001$) and 2-4 year olds were the most affected. Major malaria vectors recorded in light trap collections were *An. dirus*, *An. minimus* and *An. philippinensis/nivipes*. Chloroquine resistance studies indicated that treatment failure occurred in 35% of the cases and hence the use of artesunate combination therapy (ACT) was recommended for treatment of malaria in the area.

Key words: malaria, epidemiology, vector, resistance, Tripura, India

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