

Seasonal prevalence and biting patterns of malaria vectors in hard-to-reach area

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Myanmar Health Research Congress: 2009; pg. 12

Abstract

In Myanmar, malaria is still recognized as one of the public health problem and usually malaria endemic areas are located in forested, rural, hilly or mountainous and hard-to-reach. This study was to determine the seasonal prevalence of malaria vectors and their biting patterns. Mosquitoes were collected with human baits (indoor and outdoor) and animal baited trap net from October 2008 to July 2009 in Thayet Pin Inn village, Pyin Oo Lwin Township, Mandalay Division. A total of 1814 *Anopheles* mosquitoes with 15 *Anopheles* species were collected. Primary vector, *Anopheles minimus* was the predominant vector in premonsoon season (May). Most abundantly collected secondary vectors were *Anopheles maculatus* in premonsoon (May), both *Anopheles annularis* and *Anopheles philippinensis* in postmonsoon (October). The results of the biting patterns on human baits showed that *An. minimus* were early night biter especially in the first quarter (6:00 pm - 9:00 pm) and second quarter (9:00 pm - 12:00 pm) of night. The biting patterns of *An. minimus* on human and animal showed no significant different. The biting patterns of *An. maculatus*, *An. annularis* and *An. philippinensis* on human baits also showed that early night biter especially in the first and second quarters of night. *An. minimus*, *An. maculatus*, *An. annularis* and *An. philippinensis* were more preferred to feed on human baits outdoor than that of indoor. The result from this study are expected to be useful personal protection in this area.