

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

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Abstract

In Myanmar, malaria is still recognized as one of the public health problems and usually malaria endemic areas are located in forested, rural, hilly or mountainous and hard-to-reach areas. The objective of 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 Thayetpininn Village, PyinOoLwin Township, Mandalay Region. 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 *An. maculatus* in premonsoon (May), both *An. annularis* and *An. philippinensis* in postmonsoon (October). The results of the biting patterns on human baits showed that *An. minimus* were early-night biters especially in the first quarter (6:00 pm - 9:00 pm) of night. The biting patterns of *An. maculatus*, *An. annularis* and *An. philippinensis* on human baits also showed them as early-night biters especially in the first quarter of night. *An. minimus*, *An. maculatus*, *An. annularis* and *An. philippinensis* preferred to feed on human baits outdoor than that of indoor. The results of this study are expected to be useful in personal protection against mosquitoes in this area.