NOCTURNAL ACTIVITY OF PHLEBOTOMINE SAND FLIES IN SATUN PROVINCE, THAILAND

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Abstract. Phlebotomine sand flies are proven vectors of leishmaniasis in several countries. The main vector species in Thailand is still unknown and knowledge of nocturnal activity patterns of phlebotomine sand flies is very limited. Phlebotomine sand flies were collected using Center for Disease Control (CDC) incandescent light and black light traps were set up outdoors at two hourly intervals from 18:00 to 06:00 hours in Satun Province, southern Thailand. In total, 6,739 sand flies, 2,069 males and 4,670 females, were collected during June 2015, comprising six species belonging to 2 genera, *Phlebotomus* and *Sergentomyia*. *S. indica* (72.8%) and *S. gemmea* (26.6%) were the most common species caught in both types of traps. The number of phlebotomine sand flies collected in the CDC black light traps is significantly higher than in the incandescent light traps. The numbers of female *S. gemmea* differs significantly among the time intervals, whereas *S. indica* shows no significant differences. The number of phlebotomine sand flies is significantly correlated with temperature and relative humidity.

Keywords: *Phlebotomus*, *Sergentomyia*, light trap, nocturnal activity, sand fly, Thailand

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