

# MANSONIA UNIFORMIS: A LOCALLY IMPORTANT VECTOR OF NOCTURNALLY SUB-PERIODIC *BRUGIA MALAYI* IN SOUTH SUMATRA, INDONESIA

Budi Mulyaningsih<sup>1</sup>, Sitti R Umniyati<sup>1</sup>, Suwarno Hadisusanto<sup>2</sup> and Erwin Edyansyah<sup>3</sup>

<sup>1</sup>Department of Parasitology, Faculty of Medicine, Public Health and Nursing, <sup>2</sup>Faculty of Biology, <sup>3</sup>Postgraduate Program of Medicine, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Yogyakarta, Indonesia

**Abstract.** *Mansonia uniformis* is the main vector of nocturnally sub-periodic *Brugia malayi* in South Sumatra, Indonesia. In places endemic for mosquito borne diseases, it is necessary for mosquito surveillance system be established and regularly updated. The study determined relative abundance and landing pattern of *Ma. uniformis* in Sedang Village, Banyuasin, South Sumatra, a Malayan filariasis endemic area. Mosquitoes were collected by a human-landing method indoors and outdoors at six randomly selected houses every hour from 06:00 PM to 05:00 AM for two consecutive nights in May 2018. *Mansonia* identified morphologically were *Ma. annulifera* (27%), *Ma. dives* (1%) and *Ma. uniformis* (62%), with 1.4 folds higher numbers collected outdoors than indoors. Landing of *Ma. uniformis* was active soon after dusk and the highest density of indoors and outdoors landing was both 09:00-10:00 PM, with 9 and 8 mosquito/hour/person landing, respectively. Thus, the predominance of *Ma. uniformis* in Sedang Village indicates a risk of nocturnally sub-periodic Malayan filariasis transmission, and appropriate measures should be taken to prevent mosquito bites and to eliminate breeding sites of this mosquito vector.

**Keywords:** *Mansonia uniformis*, Culicidae, Malayan filariasis, South Sumatra, Indonesia

---

Correspondence: Budi Mulyaningsih, Department of Parasitology, Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada, Yogyakarta, 55281, Indonesia.  
Tel: +62 274 546215; Fax: +62 274 546215  
E-mail: budi.mulyaningsih@ugm.ac.id, budimulyaningsih@yahoo.com