

THE INFLUENCE OF TEMPERATURE ON THE DEVELOPMENTAL RATE AND SURVIVAL OF *Aedes albopictus* IN THAILAND

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Abstract. Global climate change has impacted public health that including vector borne disease. In particular, changing temperatures have altered insect vector life cycles and viral incubation periods. Several methods have been used to estimate changes in the worldwide distribution of dengue in various global climate change scenarios. In this study, we investigated the effect of three different temperatures (normal, 26°C; moderate, 30°C; and high, 33°C) on the wild and laboratory population dynamics of *Aedes albopictus*, focusing on the larval developmental rate from the first instar to adulthood and survival at the immature and mature stages. *Aedes albopictus* underwent more rapid development at a high temperature. Conversely, survival was highest at a normal temperature and lowest at a high temperature. Our findings provide insight into the effect of temperature on the life cycle of *Aedes albopictus* in Thailand, and illustrate the biologic changes that this mosquito may undergo in response to global warming.

Keywords: *Aedes*, temperature, climate change, development rate, survival

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