

# Potential of *Plasmodium knowlesi*, the fifth malarial pathogen, in Bangladesh

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Having approximately 34% of its population at risk of malaria, Bangladesh is one of the four major malaria-endemic countries in South-East Asia. Most of the malarial cases come from 13 endemic districts of the country. *Plasmodium falciparum* is the predominant malarial parasite in Bangladesh; however, *P. vivax*, *P. malariae*, and *P. ovale* have also been reportedly found in the country. Based on tests of human cases and archived blood, *Plasmodium knowlesi* has recently been suggested as the fifth malarial pathogen in humans, which can cause severe and fatal malaria. This is of great public health concern owing to its fatal nature, especially in resource-poor countries (e.g., Bangladesh). Though *P. knowlesi* has not been found in Bangladesh yet, which could possibly be due to difficulties in identifying it by microscopy, and in distinguishing it from *P. malariae*, the country is at potential risk of this parasite due to its geographic position. Myanmar, a smaller part of India, and a significant part of Bangladesh have been mapped within the geographic distribution of *Anopheles leucosphyrus*, the main vector for *P. knowlesi*. Moreover, several Macaque species including the usual hosts of *P. knowlesi* have their habitats in Bangladesh. *Macaca fascicularis*, one of the critically endangered Macaque species, is known to be naturally available in extreme southeastern areas of the country.

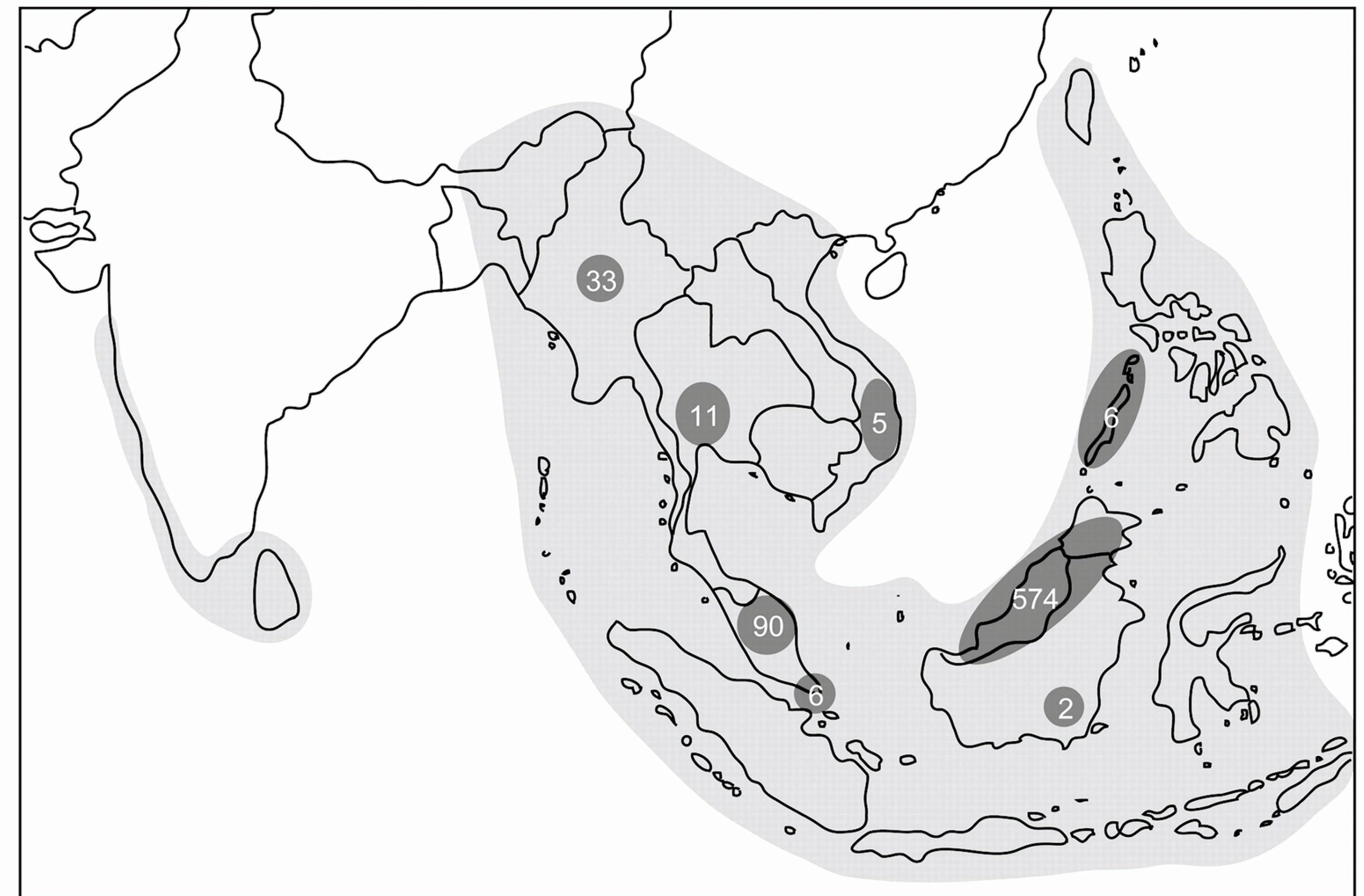


Figure: Geographic distribution (gray areas) of *Anopheles leucosphyrus* group mosquitoes, the main vectors for *P. knowlesi*.

(Source: Kantele and Jokiranta, 2011)