

## Malaria elimination will fail without understanding vector ecology

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A global commitment to malaria eradication must also involve a longterm commitment to vector ecology. This is the message of the authors of a Policy Forum article published in this week's *PLoS Medicine*, who emphasize that malaria eradication efforts will not be successful until a better understanding of the ecology and evolution of the mosquito vectors is gained.

Gerry Killeen from the Ifakara Health Institute in Dar es Salaam, Tanzania and colleagues say that existing front-line <u>vector control</u> measures (such as insecticide-treated nets and residual sprays) cannot break the transmission cycle of Plasmodium falciparum in the most intensely endemic parts of Africa and the Pacific.

They argue that malaria eradication will require urgent strategic investment into understanding the ecology and evolution of the mosquito vectors that transmit malaria rather than sole investment in established means of preventing <u>malaria transmission</u>.

They particularly emphasize the need to understand the private lives of mosquitoes in the broader environment outside of houses where they spend most of their lives: most of what we know is based on waiting for them to come to us rather than us following them as they struggle to survive and reproduce, the authors say.

**More information:** Ferguson HM, Dornhaus A, Beeche A, Borgemeister C, Gottlieb M, et al. (2010) Ecology: A Prerequisite for



Malaria Elimination and Eradication. PLoS Med 7(8): e1000303. doi:10.1371/journal.pmed.1000303

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