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NEWS

Amazon studies link malaria to deforestation

Luisa Massarani and Mike Shanahan 30 January 2006 | EN

[RIO DE JANEIRO] Two studies in the Amazon rainforest have shown a link between deforestation and an increased risk of malaria. The findings have implications for health management and environmental policy in the region.

According to research published today (30 January), the clearing of trees in Brazil's Amazon region to create new settlements increases the short-term risk of malaria by creating areas of standing water in which mosquitoes can lay their eggs.

The study, in *Proceedings of the National Academy of Sciences*, also found that once agriculture and urban development are established in frontier regions, this habitat declines and malaria transmission rates fall.



Both studies found that deforestation increases the risk of malaria transmission University of Florida

"Malaria mitigation strategies for frontier settlements require a combination of preventive and curative methods and close collaboration between the health and agricultural sectors," say the team led by Marcia Caldas de Castro of the University of South Carolina, United States.

The study comes less than a month after one in neighbouring Peru showed that malaria epidemics in the Amazon were linked to deforestation. The findings appeared in January's issue of the *American Journal of Tropical Medicine and Hygiene*.

The study showed that the biting rate of *Anopheles darlingi*, the Amazon's main malaria-spreading mosquito, was nearly 300 times greater in cleared areas than forested ones.

"Most people think malaria is on the rise simply because the mosquito feeds on the increasing numbers of humans in the rainforest. But our results show that altering the landscape likely plays an even larger role than people moving into the jungle", says lead researcher Jonathan Patz, of the University of Wisconsin-Madison, United States.

Patz says the fact that deforestation may affect the prevalence of a disease like malaria raises some larger issues.

"I feel conservation policy is one and the same with public health policy. It's probable that protected conservation areas may ultimately be an important tool in our disease prevention strategies," he says.

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