

# Edible fish feasts beats malaria

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The emerging threat of pesticide resistance means that biological malaria control methods are once again in vogue. New research published in the online open access journal BMC Public Health shows how Nile tilapia, a fish more commonly served up to Kenyan diners, is a valuable weapon against malaria mosquitoes.

Annabel Howard and Francois Omlin from the International Centre of Insect Physiology and Ecology in Nairobi, Kenya, introduced Nile tilapia (*Oreochromis niloticus* L.), to abandoned fishponds in western Kenya. The study, funded by the Government of Finland, BioVision Foundation (Switzerland) and the Toyota Environment Foundation, monitored pond life, comparing the restocked ponds with a control pond nearby.

After 15 weeks the fish reduced both *Anopheles gambiae* s.l. and *Anopheles funestus*, the region's primary malaria vectors, by over 94 percent. The fish also decimated three quarters of the culicine mosquito population.

The findings present a win-win situation for Kenyans, who can use the fish to limit mosquito populations and gain food and income from them too. "O. niloticus fish were so effective in reducing immature mosquito populations that there is likely to be a noticeable effect on the adult mosquito population in the area," Howard says. This control method is apparently sustainable, as the fish breed and provide a continuous population. The authors also point out other benefits in their article.

There are over 2000 pediatric malaria cases annually in the Kisii Central

District where the authors carried out their research. Nile tilapia's predilection for mosquitoes has been known since 1917. However this is the first field data published detailing this species' use for mosquito control.

Source: BioMed Central

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