

***Vorticella*as Effective Mosquito Bio Control Agent**

A microorganism species infects and kills mosquitos that spread malaria, dengue, yellow fever, Zika virus, and Chikungunya, claim scientists at the School of Life Sciences, North Maharashtra University in their recent study.

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Vorticella is a naturally occurring protozoan organism found in fresh water bodies that also provide for a breeding ground for mosquitos. Dengue, malaria, chikungunya, zika virus, yellow fever and filariasis are spread by two species of mosquito namely *Aedesaegypti* and *Anopheles stephensi*. These diseases cause severe morbidity and mortality in humans. Several synthetic insecticides such as temephos and organophosphate have been used for controlling mosquitos but they have raised environmental concerns because of the development of insecticide-resistant mosquitos and their harmful effects on non-target animals. This calls for searching and developing bio pesticides that are derived naturally and hence, are eco friendly alternatives to synthetic and harmful pesticides.

Researchers at the School of Life Sciences, North Maharashtra University, Maharashtra have isolated and identified *Vorticella* species of parasites that infect and kill larvae of *Aedesaegypti* and *Anopheles stephensi* mosquitoes that cause diseases in humans. They collected dead mosquito larvae from different mosquito breeding sites in Jalgaon, Maharashtra, crushed them in saline solution, and prepared a suspension of *Vorticella* parasite.

They found that the *Vorticella* suspension infected mosquito larvae. Within 48 hours of infection, the larvae became sluggish and immotile and by 84 hours, about 80% of the larvae died. The scientists proclaim, "The *Vorticella* sp. found in the present study showed potential of infection and mortality of *Anophelesstephensi* and *Aedesaegypti* mosquito larvae".

Spraying a suspension containing *Vorticella* bio pesticide could help kill larvae of mosquitos that cause diseases such as dengue, malaria, yellow fever, Chikungunya, and filariasis and manage the disease burden in tropical areas in an eco friendly and cost effective manner.

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