"There is plenty of room at the bottom" - Richard P. Feynman

Nanoparticles Could Control Mosquito Population

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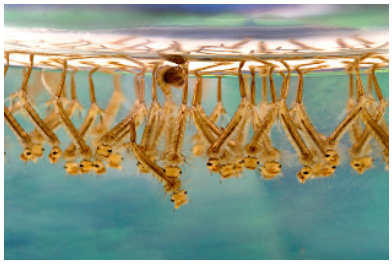

Larvae of Culex Mosquitoes.

Many species of mosquitoes, our daily nocturnal neighbours and nuisance, feed on our blood and transmit very harmful diseases like malaria, dengue fever, filariasis etc. It is also estimated that 2 million people die every year due to the diseases spread by mosquitoes. Many methods like nets, insecticides, repellents are being used to eradicate this problem but none of the methods were found to be permanent and efficient. Recently scientists from India found a solution to this problem by developing a simple synthesis of environmentally mild carbon nanoparticles which can control the mosquito populations.

Prof. Sabyasachi Sarkar and team of Bengal Engineering and Science University, used water-soluble carbon nanoparticles (wsCNPs) to help with imaging the mosquito fed zebrafish. But they eventually found out that the wsCNPs appeared to be retarding the growth of mosquito larvae.

The wsCNPs were prepared by burning wood wool in a reduced oxygen environment, washing them and then treating them with nitric acid. They have noticed that a concentration of wsCNPs as low as 3mg/l could prevent the larvae from reaching maturity, resulting in their death and could be They indicated that wsCNPS at this concentration are harmless to the surrounding environment and can persist for longer periods in stagnant water.

However, it was stated that further research is to be done to observe the potential long term ecological effects, before this material can be implemented as an effective method of mosquito control.

To read the complete article visit http://www.rsc.org/chemistryworld/2013/09/nanoparticles-stop-mosquitoes-breeding

Image Source: A New Model for Predicting Outbreaks of West Nile Virus. Gross L, PLoS Biology Vol. 4/4/2006, e101. http://dx.doi.org/10.1371/journal.pbio.0040101. (Image: James Gathany, CDC)

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