Salinity-tolerant larvae of mosquito vectors in the tropical coast of Jaffna, Sri Lanka and the effect of salinity on the toxicity of Bacillus thuringiensis to Aedes aegypti larvae

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Abstract

Dengue, chikungunya, malaria, filariasis and Japanese encephalitis are common mosquito-bornediseases endemic to Sri Lanka. Aedes aegypti and Aedes albopictus, the major vectors of dengue, were recentlyshown to undergo pre-imaginal development in brackish water bodies in the island. A limited survey of selectedcoastal localities of the Jaffna district in northern Sri Lanka was carried out to identify mosquito species undergoingpre-imaginal development in brackish and saline waters. The effect of salinity on the toxicity of Bacillus thuringiensisisraelensis larvicide to Ae. aegypti larvae at salinity levels naturally tolerated by Ae. aegypti was examined.