

Survey on predatory mosquito larvae and their consortium mosquito larvae in selected habitats in Matara district

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Mosquitoes are vectors of life threatening diseases and finding natural control methods is one of the key priorities to reduce the adverse effects of chemical control. A survey was conducted to collect predatory mosquito larvae and their consortium mosquito larvae from eleven locations in Matara district during April to November 2017. Mosquito larval samples were collected once per month and collected 3rd and 4th instar larvae were preserved in 70% alcohol. Mosquito larvae were identified using the standard taxonomic keys. Among the eleven sites, predatory mosquito larvae were identified at three locations, namely Hakgediella (Weligama District Secretariat Division), Gallela (Akuressa DSD), and Kotuwegoda (Matara DSD). According to the survey, *Lutzia fuscanus* is the only species found in urban ditches at Kotuwegoda and the other species namely *Lutzia vorex*, *L. tigripes* and *Toxorhynchites* spp. were present in the natural water logging areas at Hakgediella and Gallela. *L. fuscanus* larvae live together with *Culex quinquefasciatus* larvae. *C. lophoseromia*, *C. demissus* and *Aedes vittatus* collectively live with *Toxorhynchites* spp. *Anopheles karwari*, *Aedes japonicus*, *Culex parioji*, *Culex barraudus*, *Culex edwardsi*, *Anopheles lindesayi japonicus* and *Culex infantilis* collectively live with the *L. tigripes* and *L. vorex*. Species richness of mosquito species is highest in Hakgedigala and lowest in Kotuwegoda. Permanent rock pools are the best place to the high abundance of the predatory mosquitoes. Potential vector control ability of these predatory mosquitoes needs further investigation.

Keywords: *Lutzia* spp., Predatory mosquitoes, *Toxorhynchites* spp., vector control

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