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Identification guide for larvae of *Aedes (Stegomyia)* (Diptera: Culicidae) species in Sri Lanka

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In Sri Lanka, 6 *Aedes (Stegomyia)* species, namely, *Ae. aegypti*, *Ae. albopictus*, *Ae. krombeini*, *Ae. mediopunctatus*, *Ae. novalbopictus* and *Ae. w-albus* are reported. However, to date, a complete identification guide for these species (larvae) is not available for the use of field staff. This study developed an identification guide for larvae of *Aedes (Stegomyia)* species, by use of available keys and literature, and, with reference to larval specimens that were collected from different localities in the island from January – December 2008. Sub genus *Stegomyia* can be differentiated from other subgenera of genus *Aedes* by the combination of following characteristics. Antennal shaft is smooth, 1-A is single, 4-C is branched, 5-C is single, 6-C is single or bifid, 7- C is with 2-3 branches and 6-C is situated in front of 5-C, seta 12-I is absent, comb scales (number < 15) are arranged in a single row. Siphon is 1-3 times length of diameter at base and has no acus. Pecten teeth are all about same size and situated in a regular rank. Anal fan is with 4 pairs of setae. Of the 6 *Aedes (Stegomyia)* species, *Ae. mediopunctatus* can be differentiated by the presence of a semicircular chitinised plate on abdominal segment VIII, to which 5 comb teeth are attached. Rest of the species has no such chitinised plate. Of these species, *Ae. aegypti* can be differentiated by the presence of strong basal lateral denticles on comb teeth. *Ae. w- albus* can be differentiated from the remaining 4 species, as this species has 5 - 6 comb teeth and 4 - 8 pecten teeth. Rest of the species bear 8-12 comb teeth and 7- 14 pecten teeth. *Ae. krombeini* can be differentiated from *Ae. albopictus* and *Ae. novalbopictus* by the long, 2-3 branched 1-VII and two branched 4d-X. In *Ae. albopictus* and *Ae. novalbopictus*, setae 1-VII is short and 4 branched, and seta 4d-X is single. *Ae. novalbopictus* has a longer siphon (3 times length of diameter at base) and complete saddle (in most occasions). Siphon of *Ae. albopictus* is 2- 2 ¹/₂ times length of diameter at base and saddle is incomplete. In Sri Lanka, 11 sub genera of the genus *Aedes* were recorded. These genera share some characteristics, thus, this identification guide presents the key characteristics of *Aedes (Stegomyia)* and specific characteristics of all Sri Lankan species of *Stegomyia* facilitating field staff to consult a single document for identification of larvae of *Aedes (Stegomyia)* species in the island.

Keywords: Identification guide, *Aedes (Stegomyia)*, Sri Lanka

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