ABSENCE OF DENGUE VIRUS NS 1 ANTIGEN IN *Aedes aegypti* AND *Aedes albopictus* MOSQUITOES COLLECTED FROM URBAN AREAS OF PERADENIYA AND KEGALLE

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Dengue fever (DF) is an important mosquito-borne disease that affects humans causing morbidity and mortality. With neither vaccines nor treatment available, prevention of the disease relies heavily on surveillance and control of mosquito vectors. *Aedes aegypti* is considered to be the major vector for dengue virus (DENV) transmission, whereas *Aedes albopictus* is considered to be the secondary vector. Both *Aedes* spp. are responsible for carrying any of the four serotypes of DENVs (DENV1, DENV2, DENV3, and DENV4).

Firstly, we examined the *Aedes* mosquitoes collected outdoors to identify which of the *Aedes* species was abundant in the urban areas of Kegalle and Peradeniya. Secondly, we evaluated NS1 antigen detection (SD BIOLINE Dengue NS1 test) in field caught *Aedes aegypti* and *Aedes albopictus* mosquitoes (n=165) to gather evidence for DENV carriage.

*Aedes albopictus* was more abundant (115/165; 70%) than *Aedes aegypti* (50/165; 30%) in the urban areas of Kegalle and Peradeniya. However, we were unable to detect Dengue NS1 antigen in the field caught *Aedes aegypti* and *Aedes albopictus* mosquitoes.

The reason for not detecting the Dengue NS1 Ag in the field caught *Aedes* spp. may be twofold. First, these field caught mosquitoes may not be carrying the DENV or our test was unable to detect the low level of DENV found in the field-caught mosquito pools. However, supernatants obtained from the same mosquito pools that were tested for Dengue NS1 antigen are stored at -80°C for DENV RNA extraction and RT-PCR to confirm the validity of Dengue NS1 antigen detection test in the field caught mosquitoes.

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