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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^{o}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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