PRELIMINARY INVESTIGATION ON TERMITE FAUNA (INSECTA: ISOPTERA) IN THE OPEN UNIVERSITY PREMISES, NAWALA, SRI LANKA

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Termites are the most dominant arthropod detritivores and they are often in conflict with human endeavors. The present study was carried out to investigate termite fauna and their distribution, which cause severe infestations in the OUSL premises, Nawala. Four different sites were selected and standardized transect method of Jones and Eagleton (2000) was used for sampling termites. Several methods such as soil sifting, litter sifting, pitfall traps, hand picking, and bait traps were used to collect termites in each soil sample. The sampling was done once a month in each site from March-September in 2015. Termites collected from OUSL premises belonged to 3 families, Kalotermitidae, Rhinotermitidae and Termitidae. In family Rhinotermitidae two sub families and two species namely, Coptotermitine (*Coptotermes ceylonicus* (Holmgren) and Heterotermitinae (*Heterotermes sp*.) were identified. In family Termitidae, 3 species, *Odontotermes ceylonicus* (Wasmann), *O. feae* (Wasmann) and *O. horni* (Wasmann) belonging to the sub family Macrotermitinae were identified. Family Kalotermitidae had one sub family Kalotermitinae and one morpho species, *Cryptotermes sp*. Identified termite fauna belonged to two functional groups, subterranean termites and dry wood termites. OUSL premises were dominated by subterranean termite fauna representing three *Odontotermes sp*. Only one dry wood termite species, *Cryptotermes sp* was found in one site. Subterranean termite species *O. ceylonicus* (Wasmann) was the most widely distributed and abundant termite species in the OUSL premises. Results also showed that the highest termite abundance was recorded in Site 03 with a high species diversity (H = -1.3918). Abundance and species diversity were comparatively less in the other three sites (Sites 02: H = -0.6739, 04: H = -0.6817, 01: H= -0.8563**).** Therefore, species specific control methods, proper management methods should be introduced to control both subterranean and dry wood termite fauna in the OUSL premises. Further studies should be carried out to investigate food preference levels of termite species and any biological control methods for eradicating termites in the OUSL premises.

Keywords**:** Termites, OUSL, Biodiversity, *Coptotermes ceylonicus*

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