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Arboreal ant assemblages (Formicidae) and importance of *Oecophylla smaragdina* (Fabricius) occurrence in a wet zone cashew field in Sri Lanka

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Many ant species (Hymenoptera, Formicidae) have the potential to control herbivore abundance, reducing the plant damage while increasing plant growth, reproduction and yield in agro-ecosystems. Ant assemblages on six cashew trees in Delgoda, Gampaha District were recorded throughout three phenological phases by visiting the field six times from March to June in 2015. Seven to 15 baited traps were set 25 cm apart on the branches of each small, medium and large tree and collected after three hours. Worker ants seen on the main trunk and four major branches of each tree during a five minute period were hand-collected 5 to 9 times from small to large trees on each occasion. Collected ants were preserved in 70% ethanol, identified and listed. Number of *Oecophylla smaragdina* (Fabricius) nests observed on the same trees was recorded from April to June in 2015. The materials carried by *O. smaragdina* workers on cashew tree branches were also collected, preserved in 70% ethanol and identified to the possible levels using a Low Power Stereo-microscope.

Fourteen ant species in five subfamilies were recorded. Species richness observed on each occasion ranged from 7 – 11 while *O. smaragdina* was the only species on all cashew trees. Nests of the species of *O. smaragdina* were observed only on one or two large and medium-sized trees. Various plant and animal materials carried by *O. smaragdina* workers confirmed that the species is an omnivore and a generalist predator. Presence of ant assemblages on cashew trees in the absence of any insecticide application in the current cashew field may have contributed to an observed absence of serious damage by cashew insect pests elsewhere.

Keywords: Wet zone cashew ants, Arboreal ant sampling, Cashew fruit and nut maturing phase, *Oecophylla* nesting, *Oecophylla* food habits