

A preliminary inventory of worker ants (Family: Formicidae) in Sinharaja forest

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Ants (Order: Hymenoptera; Family: Formicidae) belonging to twelve subfamilies have been recorded from Sri Lanka. Sinharaja forest is recognized as a hot spot of biodiversity but little is known about the ant community of this forest. A survey on worker ants in Sinharaja forest was carried out by sampling them for three days in February, April and June in 2005. Honey baiting, litter sifting, soil sifting and pitfall trapping were carried out along a 100 m transect marked in ten sites of this forest. Honey baits (25) were kept at 4 m intervals and collected after an hour into bottles filled with 50% ethanol. Some ant species observed on the honey baits were identified and recorded with their numbers in the field while preserving the unknown species in 85% ethanol. Litter sieving (10) and soil sieving (20) were carried out at 10 m and 5 m intervals, respectively. Honey baited pitfall traps (10) were fixed in the evening at each of three sites to collect night foragers. Dry weather in February and June and, rain in April prevailed during the field sampling. Air temperature (21°C – 27.5°C), soil temperature (21°C – 25°C), mean litter depth (2.1 cm – 6.3 cm) and soil humidity (11.9% - 47.8%) of each site were also recorded.

Significant differences were not observed (chi square test; $p > 0.05$) among the Species Richness values (February: 31, April: 35, June: 33) for the three occasions. Forty six species and morphospecies of ants were identified collectively from the Sinharaja forest. Worker ants belonging to eight subfamilies, Aenictinae, Amblyoponinae, Aneuretinae, Cerapachyinae, Dolichoderinae, Formicinae, Myrmicinae and Ponerinae were observed. *Aphaenogaster* sp. 1 (32.6%) was dominant whereas *Technomyrmex bicolor* Emery (18%), *Pheidole* sp. (8.7%), *Tetramorium* sp. 2 (6.3%), *Aphaenogaster* sp. 2 (5%), *Pheidologeton* sp. 1 (3.8%), *Myrmecaria* sp. (3.5%), *Lophomyrmex* sp. (3.2%), *Pheidologeton* sp. 2 (2.2%), *Aneuretus simoni* Emery (1.8%) *Tapinoma* sp. (1.5%), *T. albipes* (1.6%), *Paratrechina* sp.1 (1.6%) *Tetramorium bicarinatum* (1.6%) and *Hypoponera* sp. 1 (1.5%) were observed in lower proportions. Each of the other morphospecies contributed less than 1% to the ant community in this forest and the rare ants *Amblyopone* sp., *Harpegnathos* sp. and *Vollenhovea* sp. were also observed. The average Frequency of Occurrence of *Aneuretus simoni* Emery (Sri Lankan Relict ant) in this forest was 50%, 80% and 40% in February, April and June, respectively.

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