

**The first record of *Aneuretus simoni* Emery (Sri Lankan Relict ant) from
Sinharaja forest and its relative abundance estimated by several sampling methods**

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Aneuretus simoni Emery (Subfamily: Aneuretinae) has been recorded only from Sri Lanka. The relative abundance of *Aneuretus simoni* workers in Sinharaja forest, a world heritage site, was investigated from 14th to 17th February 2005 by honey baiting, litter sifting, soil sifting and pitfall trapping along a 100 m transect laid in each of the ten sites under dry weather conditions. Honey baits were kept at 4 m intervals and were collected after an hour. Some morphospecies and their numbers observed in honey baits were recorded in the field and the rest were preserved in 85% ethanol. Litter sifting (10) and soil sifting (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 ants at night. Air temperature (21°C – 27.5°C), soil temperature (21°C – 25°C), mean litter depth (2.1 cm – 6.1 cm) and soil humidity (29.2% - 35.8%) of each site were also measured.

Worker ants belonging to seven subfamilies, Amblyoponinae, Aneuretinae, Cerapachyinae, Dolichoderinae, Formicinae, Myrmicinae and Ponerinae and thirty two morphospecies of worker ants were observed. *Aphaenogaster* sp. 1 (38.6%) was dominant whereas *Technomyrmex bicolor* Emery (11.6%), *Pheidole* sp. (11%), *Paratrechina* sp.1 (10%), *Tetramorium* sp. 2 (5.2%), *Aphaenogaster* sp. 2 (4%), *Lophomyrmex* sp. (3.5%), *Pheidologeton* sp. 1 (2.5%), *Tetramorium bicarinatum* Mayr (2%), *Hypoponera* sp. 1 (1.8%), *Pheidologeton* sp. 2 (1.5%), *Myrmecaria* sp. (1%), and *Aneuretus simoni* Emery (1%) 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 *Vollenhovia* sp. were also observed.

Significantly lower number of *A. simoni* workers than that of all other worker ants ($\chi^2 = 1529$, $p < 0.05$) was observed in Sinharaja forest. This species was recorded from 50% of the study sites in 2% (Site - B), 1% (D), 1.5% (E), 7.5% (F) and 1% (I) proportions. The relative abundance of *A. simoni* workers was 12% ($N =$ total number of worker ants = 106), 3% ($N = 88$) and 0.3% ($N = 1742$) in litter, Soil and honey baits, respectively. *Aneuretus simoni* was not observed in pitfall traps. Although *A. simoni* has been recorded from several habitats earlier, this is the first record of this species from Sinharaja forest.

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