

Discovery of Sri Lankan Relict Ant (Formicidae, Aneuretinae) and a Preliminary Ant Inventory of Indikada-Mukalana Forest Reserve in Colombo District, Sri Lanka

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The Sri Lankan Relict Ant, the sole extant species of Aneuretinae, *Aneuretus simoni* Emery, survives in several wet zone and intermediate zone forests in Sri Lanka. Nests of the species and associated ant fauna were surveyed for the first time in a forest in Colombo District, the Indikada-Mukalana Forest Reserve, using the quadrat method and worker ants were investigated simultaneously by the pitfall trapping in December, 2015. The frequency of nest occurrence in 40 quadrats, percentage nest abundance, mean nest density and, percentage frequency of occurrence of *A. simoni* and associated ant fauna in pitfall traps in two localities at 291 m and 159 m altitudes were investigated by laying 20 quadrats of 1 m x 1 m at two plots in each locality and counting the number of nests within each quadrat, and setting hundred pitfall traps at 4 m distance along eight transects laid at each locality and collecting them after six hours. Collected ants were preserved in the bottles filled with 70% ethanol and identified to the furthest possible taxonomic level at suitable magnifications using a low power stereo-microscope. Several environmental parameters at the two localities were also recorded. A preliminary inventory of ant fauna observed in the forest was also prepared. Nests of *A. simoni* were found only in the locality at 291 m of the forest and 18/ 40 frequency of nest occurrence in the quadrats, 9.7% of nest abundance and 0.18 m⁻² of mean nest density of *A. simoni* were observed at the locality. Nest density of *A. simoni* had the third rank among that of other species. Frequency of occurrence of the workers of the species in the pitfall traps in the lower and upper elevations was 2 % and 3 %, respectively. A lower nest density of the species than that observed in other forests was recorded during the current survey but Indikada-Mukalana Forest Reserve can be added to the list of its habitats. Eighteen genera and 21 species in Aneuretinae, Dolichoderinae, Formicinae, Myrmicinae and Ponerinae can be considered a preliminary ant inventory of the Forest Reserve.

Keywords: *Ants, Forest Reserves, Quadrat method, Pitfall trapping, Mean nest density*

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