



Oral presentation: O10

The ant community observed by the repeated quadrat sampling in a selected region of the Meethirigala Forest Reserve, Sri Lanka

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Abstract

The ant community of the Meethirigala Forest Reserve (MFR) in Gampaha District, Sri Lanka is of special interest due to the presence of island-endemic *Aneuretus simoni* Emery and the species composition, percentage frequency of nest occurrence (FNO %) and the species richness of ants in a selected region of MFR were investigated by laying 40 quadrats of 0.5 m x 0.5 m at two 50 m² plots, which lied at 57 m, 84 m and 109 m of elevation. Number of nests occupied by each species was recorded monthly from March to July, 2014. Ants were identified to the taxonomic levels using a low power stereo-microscope in the laboratory. Ranges of soil temperature (25 °C - 28 °C), air temperature (27 °C - 31 °C), litter depth (0 cm - 6 cm), soil organic matter content % (4 - 15) and soil moisture % (6 - 19) observed at the MFR were also recorded. Nests of twenty nine species in nineteen ant genera of five subfamilies were recorded. Higher nest density values were observed for *Technomyrmex albipes* Smith F. (FNO % = 13.7) and *Odontomachus simillimus* Smith F. (FNO % = 12) for the period. Significant differences were not observed (Chi-square, $p > 0.05$) among the species richness, 24, 21 and 23, observed at 57 m, 84 m and 109 m, respectively. Twelve resident species including *A. simoni* observed on all occasions and the other tramp species recorded only on several occasions can be considered the first preliminary inventory of ants of the MFR.

Key words: forest ants, ground ants, nest sampling, quadrat method

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