



## A preliminary inventory of ants (Hymenoptera: Formicidae) of Rilagala Forest Reserve in Nuwara-Eliya District, Sri Lanka

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Rilagala Forest Reserve in Kotagala is situated at the GPS coordinates, 6°58'20.8"N and 80°35'32.5"E, and at 1271 m above mean sea level in Nuwara-Eliya District, Sri Lanka. Worker ants of the forest were surveyed for the first time during day time on 26 July, 2019 by employing honey baiting, soil sifting, pitfall trapping and the hand collection. Twenty-five pieces of gauze, each (2 x 2 cm) with a drop of honey, were placed at 4 m intervals along each of the two, 100 m transects, which were laid using a yellow cord and collected into the bottles containing 70% ethanol after an hour. Soil sifting was conducted at 1 m right to each transect and twenty-five (approximately of 5 X 5 X 5 cm) samples taken along each transect were sifted using a sieve and a white tray. All ants fallen to the white tray were preserved in Bijou bottles filled with 70% ethanol. Twenty-five cups, each half-filled with 50% ethanol, served as pitfall traps and were set at 1 m left along each transect at 4 m intervals along each of the two transects and collected after 5 hours. Along the forest edge, worker ants crawling on the floor or bushes were collected using paint brush or forceps. Air (17°C) and soil temperature (14°C) and litter depth (0-1 cm) were also recorded. Honey baiting or soil sifting caught worker ants of 3 subfamilies, Dolichoderinae, Formicinae and Myrmicinae, eight genera and 12–13 species while pitfall trapping resulted 2 subfamilies, Formicinae, Myrmicinae, 3 genera and 3 species. Hand collection had worker ants of four subfamilies, Dolichoderinae, Formicinae, Myrmicinae and Ponerinae, nine genera and 11 species. Overall, worker ants of four subfamilies, Dolichoderinae, Formicinae, Myrmicinae and Ponerinae, 12 genera and 22 species were recorded with most speciose *Pheidole* and can be considered a preliminary ant inventory of Rilagala Forest Reserve. *Crematogaster subnuda*, *Leptogenys diminuta* and *Polyrhachis rupicapra* (endemic) were found more than 100 years after Bingham (1903).

**Keywords:** Forest ants, *Polyrhachis rupicapra*, ant sampling methods, *Crematogaster subnuda*, *Pheidole*

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