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Diversity of termites in the Gannoruwa forest in Kandy

I I Hemachandra[1,2], J P Edirisinghe [1], W A I P Karunaratne [1] and C V S Gunatilleke[3]

[1]*Department of Zoology, Faculty of Science, University of Peradeniya, Peradeniya*
[2]*Postgraduate Institute of Science, University of Peradeniya, Peradeniya*
[3] *Department of Botany, Faculty of Science, University of Peradeniya, Peradeniya*

Gannoruwa forest is a remnant forest patch of about 276 ha. The summit (>700 m) of the Gannoruwa mountain is the least disturbed natural forest while the mountain slopes (518-670 m) are much disturbed and comprises largely of secondary vegetation. Gannoruwa forest is of much ecological and historical importance. This preliminary investigation examined the diversity and feeding habits of termites in the summit of the natural forest and the mountain slopes representing the degraded forest. Termites were examined in two belt transects, each 2 x 100 m and by random collections. They were identified using keys and descriptions for termites of the Indian sub-region and thereafter assigned to one of four feeding groups based on their taxonomy.

A total of 24 species of termites were collected from the two forest types representing 11 genera, 5 subfamilies and 3 families. Of them, *Odontotermes bellahunisensis, O. guptai, O. hainanensis, Dicuspiditermes obtusus* and *Kalotermes* sp. 1 are new records for Sri Lanka and *Glyptotermes ceylonicus, G. dilatatus, Neotermes kemnari, Hospitalitermes monoceros* and *Speculitermes sinhalensis* are endemic to the island. The others recorded are *Cryptotermes bengalensis, C. domesticus, O. ceylonicus, O. escherichi, O. feae, O. globicola, O. horni*, Bulbitermes sp. 2, *Nasutitermes* sp. 1 and 4 morphospecies of *Odontotermes*. Nine termite species were restricted to the degraded forest and four to the natural forest, while 11 species were common to both habitats. *Odontotermes* included 12 species, the most speciose genus in Sri Lanka.

The most abundant species were *Nasutitermes* sp. 1 (degraded forest) and *Odontotermes* sp. 5 (natural forest). Species Diversity Indices of the natural forest (H'= 2.135) and degraded forest (H'= 2.297), reflect the disturbed conditions at the lower elevation. The feeding groups represented Group I: primitive wood feeders (7 spp.); Group II: fungus growing wood feeders (12, spp.), non-fungus growing wood feeders (2 spp.) and lichen feeders (1 sp.); Group IV: true soil feeders (2 spp.). High representation of Group II termites (15 spp.) can be attributed to the availability of woody litter. Sampling gave a Species Accumulation Curve that progressively increased and reached a plateau.

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jpediri@pdn.ac.lk Tel: (0)81-2394472