

GRASS FLOWER- VISITING BEES OF THE PERADENIYA UNIVERSITY PARK

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A study of grass flower-visiting bees of the Peradeniya University Park was conducted in 7 grassland types selected on the basis of their location and degree of disturbance. The grassland types are (1)mowed lawns (2)open areas periodically slashed (3)shady slopes under large trees (4)shady areas under scattered treelets (5)undisturbed embankments and slopes (6)along roadsides and foot paths and (7)areas subjected to periodic burning. Bees were collected by sweeping the grass using a standard insect net. Particular attention was paid to grass inflorescences from where bees that had alighted on flowers were collected.

The study documented 12 species of bees in 8 genera and in the 3 families Anthophoridae, Apidae and Halictidae. The bees collected are *Pithitis binghami* Cockerell (F.Anthophoridae); *Apis cerana* Fabricius, *Apis dorsata* Fabricius, *Trigona iridipennis* Smith (F.Apidae); *Lasioglossum serenum* Cameron, *Leuconomia* sp., *Lipotriches notiomorpha* Hirashima, *Lipotriches exagens* Walker, *Lipotriches fulvinerva* Cameron, *Lipotriches* new sp. *Hoplonomia westwoodii* Griboda *Pseudapis oxybeloides* Smith, all of which belong to family Halictidae. Thus, the majority of the bees (67%) belonged to the family Halictidae and to the genus *Lipotriches*. Of the Apidae bees, *Apis florea* was not recorded from grass flowers. Family Megachilidae (with 29 bee species in Sri Lanka) was absent from the grass habitat.

The collected bees were examined for pollen on their body. *Trigona iridipennis* did not carry grass pollen although it was found resting on grass blades. Several bee species recorded from grasses carried grass pollen. Pollen on bees and from dominant grasses were removed and slide mounted using a specific technique. Pollen of different grasses was not distinguishable at species level at the magnification (x 400) at which slide mounts were microscopically examined.

The grass flowers on which bees frequently foraged comprised 10 grass species. The type of inflorescence of the different grass species appeared to determine their attractiveness to bees. Almost all the bee species recorded were present during the morning hours with peak activity between 8.00 - 9.00 a.m., during which all the species of *Lipotriches* were most active.

Sampling of bees in two grasslands; disturbed and undisturbed and having different species composition of grasses, gave different Diversity Indices. The undisturbed grassland with *Brachiaria brizantha* (Forsk.)Stapf. as the prominent grass gave the highest value for Shannon Diversity Index (1.0418) and Species Evenness (0.7515). Bee species composition and abundance appear to be determined by the type of grass species, degree of disturbance and the amount of sunlight falling on the grassland.