

**FEEDING GUILD COMPOSITION OF BIRDS IN SELECTED URBAN,
SUBURBAN, AND FOREST ECOSYSTEMS IN
KANDY, SRI LANKA**

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Presence of different feeding guilds of birds is an indicator of the overall health of an ecosystem. This study aimed to investigate the health of three ecosystems representing different urbanization levels, Udawattakele forest, Talwatta suburb with fragmented tree cover, and Kandy downtown with scattered trees, by analysing bird feeding guild composition. The encounter transect method was employed with two-kilometre transects weekly during activity peaks (0600h-0900h and 1500h-1800h) from May to December 2023 in each ecosystem. Field guides were used to identify birds and their feeding guilds. Data were analysed using BioDiversity Professional (v. 2). Shannon H' of Udawattakele, Talwatta, and Kandy downtown was 1.28, 1.44, and 0.58, and Shannon J' was 0.69, 0.82, and 0.50, respectively. Of the 22 feeding guilds recorded, 17 were from Udawattakele and Talwatta, and 10 were from Kandy downtown. Five were exclusively from Udawattakele, seven were shared by Udawattakele and Talwatta, five were shared by Talwatta and Kandy downtown, and five were shared by all (67.7% Bray-Curtis similarity between Udawattakele and Talwatta; 36.11% between these and Kandy downtown). Insectivores were the dominant feeding guild in Udawattakele (28%) and Talwatta (22%), while the least abundant in Kandy downtown (7%). The scavengers were dominant in Kandy downtown (29%), whereas low in Udawattakele and Talwatta (0% and 5%). High numbers of raptors in Udawattakele (7 species) and Talwatta (4 species) indicate healthy ecosystems with abundant prey species. Frugivores, nectarivores and granivores were found in all three ecosystems. The insectivore-frugivore guild was highly prevalent in Udawattakele (12%) and Talwatta (19%). Udawattakele and Talwatta showed 72.7% similarity in feeding guilds of endemic species while reflecting the above general pattern. Higher feeding guild diversity in Udawattakele and Talwatta indicates their stability and health, whereas Kandy downtown shows poor ecosystem health with lower feeding guild diversity and biotic homogenization.

Keywords: Frugivore, Insectivore, Raptor, Scavenger, Udawattakele