

Composition and distribution of Avifaunal diversity in the premises of the University of Kelaniya, Sri Lanka

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The study assessed the variation in landscape towards the composition and distribution of avifauna in University of Kelaniya premises. Study was conducted selecting 8 habitats types as open ground, low, moderately and highly wooded using purposive sampling representing different habitats. Survey was conducted during the period of 05.30hr- 6.30hr and 17.30hr- 18.30hr time of October 2016 to December 2016 ensuring six sampling occasions at each habitat. Point counting method (15 m radius) was used. Species diversity parameters, species distribution among habitats were analyzed using Kruskal-Wallis test, while Principle Component Analysis (PCA) was used to characterize the habitats with bird species. Species richness ($r=27$) and species diversity ($H^2=3.09$) were the highest in habitat number 4 while species evenness ($J=2.24$) was highest in habitat number 3. Total abundance ($n=75$) was recorded in habitat number 1. According to the Kruskal-Wallis statistical results, Asian brown flycatcher (Habitat 1, 3, 4, 5, 7) and White bellied drongo (Habitat 1, 4, 5, 7 and 8) were recorded as widely distributed. The second largest distribution was recorded by Black hooded oriole, Blue tailed bee-eater, Cattle egret, Feral pigeon, Brown headed barbet, Red vented bulbul, Rose ringed parakeet, within four habitats. According to the PCA, habitat 1 is categorized by open grassland birds while habitat 4 is characterized by frugivorous birds while site 5 is characterized by carnivorous birds. Comparatively, habitat 4 contributes to the highest species diversity with many flowering and fruiting trees. Recorded avifaunal community composition ensures considerable conservation value to University premises of Kelaniya.

Keywords: bird diversity, avifaunal conservation, species richness.

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