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Species diversity, abundance and composition of avian community in Buttala campus

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The aim of this study was to investigate the species composition; diversity and relative abundance of bird communities within Buttala campus, (Moneragala district) by using the point count method. The study was conducted in area of 50 ha including wide range of habitat types; home gardens, grasslands, low dense forest, medium dense forest, and dense forest and monoculture plantations, considered as semi-developed area.

From a total of 98 resident and 11 migrant species found in the study area, 89 were recorded regularly within the sample plots, 23 species which had relative abundance 1.0 ha^{-1}. Only two abundant species exceed 7.0 ha^{-1} six species showed abundance between 6.0 -2.0 ha^{-1} while all the other species were represented less than 1.0 ha^{-1}. Five (5) restricted range species *Galloperdix bicalcarata, Gallus lafayetii, Ocyceros gingalensis, Loriculus beryllinus, Pellorneum fuscocapillum,* and five nationally threatened species Perdicula asiatica, Celeus brachyurus, Phaenicophaeus leschenaultii, Lonchura malabarica and *Anthracocerous coronatus* were found in study site. Mean number of birds per unit area of all the habitat types was not significantly different ($F_{6,476}$ =0.54, *P*=0.781) during the dry spell (2001 Jan -2001 Jul).

Bird species diversity values were obtained by using Shannon Wiener index; the results values were converted to pseudo values and for comparative purposes variance and degrees of freedom were calculated. The bird species diversity of Acacia plantation (AC) was significantly different with home garden (HG) df=52, t=4.7141, P<0.001, grassland (GL) df=50, t= 5.124, P<0.001 and dense forest (DF) df=68, t=4.99, P<0.001.The species composition of grassland (GL) showed relatively high similarity with species composition of home garden (0.63), low dense forest (0.65) and medium dense forest (0.67) respectively. The community composition consists of six different food habits such as insectivore, omnivore, granivore, carnivore and frugivore. The insectivores were dominated in all habitats with a frequency of 0.3-0.6. There was no significant association of feeding habits between habitat types (df=30, $X^5_{6=}$13.74, *P*=0.995). Overall results showed no significant difference among feeding categories, relative abundance and similarity values of habitat types.

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