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Research Article

Diversity, relative abundance and distribution of avifauna in Gambella Town, Southwest Ethiopia

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ABSTRACT

Urban areas are considered as important bird areas due to the availability of considerable food and roosting sites, particularly in dump and abattoirs, wetland and woodland. The objective of this study was to determine diversity, distribution and relative abundance of bird species in and around Gambella town, South West Ethiopia. Data were collected using line transect techniques point count in the wetland, and total count techniques in the abattoir and dump site from 7:00−10:00 A.M. in the morning and 4:00−6:00 P.M. in the afternoon for two consecutive days in each week and each in four study sites. Shannon-Wiener diversity, evenness indices and Simpson's similarity indices, were used to analyses of diversity, evenness and community similarity of the species respectively. One-way ANOVA and Pair wise t-test statistical tests were used for data analysis. During this study, a total of 6623 individuals belonging to 66 species, 31 families and 13 orders were identified. Among the 31 identified families Ardeidae was numerically the dominant family represented with 11 species, while Coraciides, Columbidae, Turdides and Monarchidae were the least dominant families represented with 1 species each. At species level hooded vulture was the most abundant bird species. ANOVA result revealed birds abundance was significantly ($p<0.05$) varies among the four sites. There is no significant difference in the abundance of birds between dry and wet season (t- test, $p=>0.05$).Wetland site was found to be with relatively higher value of species diversity ($H'=3.18$) than other three site. Most birds had locally scored uncommon, frequent in the ordinal scale and a few species with rare ranks in both seasons. The occurrence of such species indicates there is a need of wildlife conservation prioritization in those sits.