2- Impact of Some Anthropogenic Activities on the Diversity of Resident bird Species at Damietta Region, Egypt.

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The present study aims to evaluate the impact of some anthropogenic activities on the resident bird community of northern area of Damietta coast, Egypt. Birds were surveyed by using point count and lines transect methods, in six different localities for 15 months (from July 2007 to September 2008). The localities represented the different human activities (cultivated; urbanized and three different fish farming sites) in addition to one control locality. The study investigated the effects of habitat type and climatic factors on resident bird community assemblage. Habitat characteristics included: vegetation cover, soil physical analysis and climatic factors. Habitat type and plant covers were clearly different among the localities and to less extent within them. Resident species diversity varied spatially and temporally among the different localities during the study period. The densely vegetated fish farm site had the highest species richness and abundance, while coastal site had the lowest one. In contrast deserted fish farm site had the highest resident species evenness, while agriculture site had the lowest one. Otherwise, control site had the highest resident species diversity while, coastal site had the lowest one (Simpson diversity index and Shanon-Wiener diversity index). House sparrow was recorded as the most abundant resident bird species among all study sites accumulatively. The different localities had distinct and characteristic groups of species responding to human activities. Hierarchical Cluster Analysis and Bray-Curtis ordination of the resident bird species community indicated that there were two bird groups: the first group included deserted fish farm site, densely vegetated fish farm site and control site near to the native habitat (semi-natural zone), while the second one consisted of coastal site, sparsely vegetated fish farm site and agriculture site (urbanization and highly modified habitat).

**Key words:** Biodiversity, human activity, Resident birds, species diversity, species abundance, species richness, species evenness, Damietta.

**Citation:**

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