

**BIRD DIVERSITY AND CONSERVATION ON FRAGMENTED KALU RIVER ESTUARY**

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Estuaries are unique wetland ecosystems that provide habitats and resources for birds. They are often vulnerable to fragmentation due to anthropogenic activities. One such estuary in Sri Lanka is Kalutara estuary. This study was carried out to measure and compare bird diversity in two different habitat types, including brackish water and coastal habitat. Birds were surveyed using point counts along a 1,500 m long line transect for 18 consecutive months starting from July 2020. Surveys were conducted between 0600 h and 1000 h. Bird diversity was measured using Shannon and Simpson's (1-D) diversity indices. A total of 1,441 individuals belonging to 15 orders, 30 families, and 55 species were recorded. Commonly observed species included Common Tern (*Sterna hirundo*), Great Crested Tern (*Thalasseus bergii*), Kentish Plover (*Charadrius alexandrinus*), Little Ringed Plover (*Charadrius dubius*), Whiskered Tern (*Chlidonias hybrida*) and Blue-tailed Bee-eater (*Merops philippinus*) and two endemic species: Sri Lanka Swallow (*Cecropis hyperythra*) and Red-backed Flameback (*Dinopium psarodes*). In addition, migratory birds, including Barn Swallow (*Hirundo rustica*), Rosy Starling (*Pastor roseus*), Gull-billed Tern (*Gelochelidon nilotica*), Little Stint (*Calidris minuta*), Common Sandpiper (*Actitis hypoleucos*) and Whimbrel (*Numenius phaeopus*) were observed. For the brackish area, Shannon and Simpson's values were 3.13 and 0.93, and for the coastal area, they were 2.80 and 0.90, respectively. Bird diversity is greater in brackish water habitats compared to coastal areas. Intense fisheries activities in the coastal belt may impact bird diversity in the area. However, Kalutara estuary deserves more research to identify the disturbance effects of anthropogenic activities on avifaunal diversity in this ecosystem.

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