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Avifaunal Diversity in Kirala Kele, Matara, Sri Lanka

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Abstract

Avifauna is an important taxon in various ecosystems both in ecological and economical contexts. Their diversity status can indicate habitat conditions while birdwatching can bring economic benefits to local communities, diversifying their livelihoods while contributing to the conservation of biodiversity. Kirala Kele is a wetland ecosystem in the Matara District which is an important habitat for biodiversity including birds. Therefore, a survey was conducted to assess the diversity of avifauna in Kirala Kele. The survey was conducted by visual observations in selected 200m four transects which focused on the micro-habitats, and anthropogenic activities. Data collection was carried out from April 2022 to September 2022 once a month from 6.00 am to 8.00 am and 4.00 pm to 6.00 pm. During the survey, 72 species of birds were recorded, belonging to 38 different families. Lesser Whistling Duck (*Dendrocygna javanica*), Spotted Dove (*Spilopelia chinensis*) and Red-vented Bulbul (*Pycnonotus cafer*) are indented as the most abundant species in the study area. Lesser Sri Lanka Flameback (*Dinopium psarodes*), Sri Lanka Hanging Parrot (*Loriculus beryllinus*), Crimson-fronted Barbet (*Megalaima rubricapillus*) and Sri Lanka Swallow (*Cecropis hyperythra*) have been recorded as endemic species. Shannon wiener index (H') and Simpson index (D) in transect 1 were 3.18 and 0.94 (marshland), in transect 2 was 3.38 and 0.96 (paddy fields), in transect 3 were 3.30 and 0.95 (canal and cultivation area), and in the transect, 4 were 1.92 and 0.66 (open water and marshland), respectively. The overall Shannon wiener index (H') in the study area was 3.21 and Simpson Index (D) was 0.91 which indicates that the sanctuary has a rich diversity of birds. The results further depict that the diversity and abundance of species depend on the availability of water, the extent of human disturbances, and the presence of vegetation cover. Since the study concluded that Kirala Kale contains a high diversity of birds, and it has great potential to be developed into an attraction of birdwatches. Therefore, the study will focus further on the diversity of birds in the migratory season, and we recommend the capacity building of local communities to promote the area as an important location for birding and educational tourism.

***Keywords*:** Avifauna, Conservation, Diversity, Educational-tourism, Kirala Kele