

Diurnal Avifaunal Diversity at Anavilundawa Ramsar Site of Sri Lanka**Bulathsinhala S.S.¹, Gunawardena M.P.^{2*}**

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Abstract

Anavilundawa is a globally important Ramsar wetland as well as one of the important bird areas in Sri Lanka. The wetlands at Anavilundawa are famous for a greater diversity of aquatic birds. However, the area is threatened with the wide and rapid spread of invasive aquatic plant species. Hence, there is a possibility of changes in avifaunal diversity in the area, a study was conducted to determine the diversity of avifauna in different habitats during the different time periods of the day. Data were collected in the morning (6.00-10.00 am) and evening (2.00-6.00 pm) along six 500 m line transects representing diverse habitats. Birds within 100 m either side of the transect were recorded. According to the results, 2,281 individuals representing 100 species belong to 48 families and 17 orders were recorded within a period of 6 months from January to June 2019. More importantly, 7 endemic species were recorded in the study area. Most abundant species were Little comorant, Lesser whistling duck, Cattle egret and Purple swamphen with the relative abundances of 23.0%, 14.4, 8.8% and 8.6% respectively. The highest number of species (50) were recorded in the Suruvila reservoir while the highest number of individuals (601) were recorded at the Pinkattiya reservoir. Lowest number species and individuals were recorded at the paddy field area. The Shannon Weiner and Simpson's Diversity indices for morning and evening were 3.235/0.918 and 2.932/0.867 respectively. The species evenness in the morning was comparatively higher (0.318) than the evening (0.216). Therefore, as depicted by diversity indices morning diversity is higher than the evening. In addition, important sightings such as Black-capped Kingfisher, Black-rumped flameback and Sri Lanka Emerald collard parakeet were recorded in the area which is out of their recorded species distribution range. Therefore, the Anavilundawa Ramsar Site provides a favorable feeding and breeding habitat for a high number of species and individuals. Though, spreading invasive flora rapidly alters the aquatic habits which can be recognised as a threat to most avifaunal species. However, few bird species are benefitted and adopted to the change in landscapes. Therefore, Anavilundawa has good diversity and has the potential of acting as a good refuge for avifaunal conservation, prompt action must be taken to control the spreading of invasive flora which is observed as the main threat to the sanctuary. Further studies on the impact of invasive flora on avifauna are recommended.

Keywords: Diurnal, Avifauna, Anavilundawa Ramsar site, Diversity