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**A COMPARATIVE STUDY ON AVIFAUNA ASSOCIATED WITH
TWO SELECTED SEASONAL RESERVOIRS AT KURUNEGALA
DISTRICT**

A PROJECT REPORT PRESENTED BY

M.U.I. WIJETHUNGA

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M.U.I.Wijethunga

Postgraduate Institute of Science

University of Peradeniya

Peradeniya

Sri Lanka

The geographic position and topography of Sri Lanka have given the island three major climatic zones and a wide variety of habitats within each supporting a vibrant avifaunal diversity. The ancient cascade systems both perennial and seasonal have over the years, evolved into important avifaunal habitats. But the contribution of reservoirs to dry and intermediate zone bird diversity has not been fully appreciated. Also, baseline data are not available for many reservoirs though they are undergoing considerable changes due to anthropogenic and natural causes preventing conservation initiations. Current study therefore looked in to diversity of avifauna in two different seasonal reservoirs and the surface floral diversity to establish baseline data as well as to understand the present situation at three different time periods (wet/early dry/dry). Field work was conducted from September to December 2009 and the study sites were two seasonal reservoirs in North Western Province, Kurunegala district namely Kithala wewa and Imbulgoda seasonal reservoir. Data on number of birds for this study were obtained by counting birds that were observed in two seasonal reservoirs. The counts were conducted from 6.00a.m. to 9.00 a.m. on each reservoir in rainy, early dry and dry period. Forty eight species of birds belonging to 24 families were recorded from Kithala wewa and fifty species of birds belonging to 27 families were recorded from the Imbulgoda wewa, Mahawa. Altogether sixty five species were recorded from both reservoirs. According to the results of the survey there was no significant differences between species richness of the two reservoirs when entire study period was considered. However, there was significantly low species richness at Kithala wewa seasonal reservoir during wet period; it

was not significantly different during all three periods at Imbulgoda seasonal reservoir. According to the values of species diversity, species evenness and species richness of flora at reservoirs, the floral diversity and evenness at Kithala wewa were higher than that of Imbulgoda seasonal reservoir at wet period. The data recorded on flora revealed that the mat forming *Eichhornia crassipes* was the commonest surface flora in Imbulgoda wewa. Whereas at Kithala wewa *Panicum repens* was the commonest flora which can provide proper nesting sites for herons and swamp hens. It depicts that being seasonal reservoirs with the changes of amount of water and flora, avifaunal diversity and richness as well as evenness could change temporally making two reservoirs two unique habitats providing niches to varied species, a characteristic that needs to be conserved.