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Foraging Habitat Utilisation of the Lesser Adjutant Stork around Maduru Oya Reservoir**De Silva P.C.W.U., Mahaulpatha W.A.D. *, Dilrangi K.H.***Department of Zoology, University of Sri Jayewardenepura, Nugegoda, Sri Lanka
*mahaulpatha@sjp.ac.lk***Abstract**

The Lesser Adjutant Stork (*Leptoptilos javanicus*) is a globally threatened bird species, a rare resident bird in Sri Lanka. The present study is aimed to determine foraging habitat variables associated with Lesser Adjutant Storks and to propose management implications based on the information gathered to conserve Lesser Adjutant Storks. Major habitat types were identified using field observations and preferred foraging habitat variables of Lesser Adjutant Storks were obtained at the locations where birds were observed from January to December 2019 around Maduru Oya Reservoir for three consecutive days per month (0600h to 1800h) laying three fixed line transects of 5km in each habitat type. The target species used two foraging grounds; seasonal grasslands that are adjacent to the major water body and seasonal pools that appear in the rainy season well away from the major water body. The most preferred seasonal grasslands comprised with high percentages of open water cover ($57.00\pm 10.14\%$) and with a grass cover of $57.66\pm 44.45\%$. Percentage of sand cover was relatively low ($9.81\pm 12.92\%$) and average soil penetration was 5.87 ± 5.78 cm while DO in the water was 5.98 ± 0.33 mg/L. Fish availability in the seasonal grasslands was 3.47 ± 3.17 per sweep, frog availability was 1.14 ± 3.73 per square meter and the soil invertebrate availability was 4.29 ± 3.54 per sample. In the second preferred foraging ground; seasonal pools were characterised with high percentages of open water cover ($74.00\pm 22.57\%$) and less grass cover ($5.75\pm 8.16\%$) with a sand cover of $2.75\pm 4.44\%$. Average soil penetration was 12.32 ± 6.79 cm and DO in the water was 4.01 ± 1.31 mg L⁻¹. Fish availability in seasonal pools were 2.60 ± 3.00 per sweep of 0.06 m³, frog availability was 6.05 ± 5.95 per square meter and soil invertebrate availability was 3.95 ± 3.75 per sample. Availability of open water and mudflats which determine the food availability of the habitat are important to compensate the energy requirements of Lesser Adjutant Storks. As wading birds require an area to rest amidst foraging, availability of sand cover is of similar importance to make the foraging ground more suitable. This study proves that this vulnerable bird species utilises both fresh water lakes and the surrounding grasslands and seasonal pools for its survival. Thus, it is of major importance to conserve both these habitat types for the conservation of this rare bird species.

Keywords: Maduru Oya National Park, Threatened bird species, Wetland birds, Conservation