



WATER BIRD DIVERSITY IN AND AROUND MADURU OYA RESERVOIR

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Abstract

Wetlands of Maduru Oya National Park (MONP) have been identified as areas of high water bird density. Maduru Oya Reservoir (MOR) is the largest reservoir located in MONP which harbours several water bird species. However, limited research studies have been conducted on birds in MONP. Therefore, in order to fulfil the research gap, the current study was conducted monthly to study the water bird diversity in and around MOR from January to December 2019 during the dry season and the wet season. Point transect method was used to survey the birds for three consecutive days in each month from 0600h to 1000h when visibility and bird activity were high. To calculate the Shannon's diversity index, the number of species and individuals in each species were used. Relative abundance and commonness were calculated for each species. A total of 30 water bird species belonging to 15 families and 7 orders were recorded. These included two globally threatened species; Lesser Adjutant Stork (*Leptoptilos javanicus*) and Asian Woollyneck (*Ciconia episcopus*), two locally threatened species including Little Ringed Plover (*Charadrius dubius*), three locally near threatened species including Great Cormorant (*Phalacrocorax carbo*) and Black-crowned Night-heron (*Nycticorax nycticorax*) and three winter visitors; Common Sandpiper (*Tringa hypoleucos*), Common Greenshank (*Tringa nebularia*) and Whiskered Tern (*Chlidonias hybridus*). Twenty five species were common and one species was rare. Species richness was 27 for the dry season and 28 for the wet season. The diversity index was 1.073 and 2.033 for the dry season and wet seasons respectively. Year around diversity index for the MOR was 1.491. Little Cormorant had the highest relative abundance while Asian Woollyneck had the lowest. Present study concludes that the reservoir supports a high water bird diversity. As a preliminary study this can be used for future research on water birds and to compose management and conservation plans to conserve them. By promoting the diverse water bird assemblage inhabiting MONP, bird watchers and tourists can be attracted to the park which will directly and indirectly uplift the socio-economy of the area.

Keywords: Maduru Oya National Park, Aquatic avifauna, Wetlands, Conservation