



01-OP16

A PRELIMINARY STUDY ON AVIFAUNA DIVERSITY OF MARGINAL AREAS IN THE MADURUOYA NATIONAL PARK, DRY ZONE OF SRI LANKA: WITH THE CONSERVATION AND MANAGEMENT IMPLICATIONS

Gabadage, D.E., Botejue, M. S., Surasinghe, T.D., Madawala, M.B., Dayananda, B., Weeratunga, V.U., Amarasinghe, A.A.T. and Karunarathna, D.M.S.S.*

Taprobanica Nature Conservation Society, Department of Biology, Rhodes College, Memphis, USA,

**dmsameera@gmail.com*

Maduruoya National Park (MNP) was established in 1983 (Gazette No. 270/9) under the Fauna and Flora Protection Ordinance (FFPO) of Sri Lanka as an integral part of the Mahaweli Protected Area Complex to provide habitats for many native fauna and flora, especially for the wildlife displaced from reservoir construction and hydropower development. Further, MNP area serves as a catchment for five regional reservoirs. This park is located within the dry zone lowlands (average annual precipitation: <2000 mm, predominantly from NE monsoons, average annual temperature: 27°C; elevation: 30-150 m, maximum: 685m) of Sri Lanka where tropical dry-mixed evergreen forests are the most prominent vegetation. To document the avifaunal diversity of the region, we conducted multiple surveys through 36 random visits in the peripheral areas of MNP for 07 years (2007-2014). We made observations in both day and night, through the unaided eye and binoculars (8×40) via multiple random walks. Indirect observations such as calls and presence of plucked (or dropped) feather were also recorded. We also interviewed villagers using a questionnaire to assess their dependency on the forest resources. We recorded a total of 196 bird species representing 66 families and 20 orders; it represents ~43% of the island's native bird fauna. Among the avifauna of our study area, 161 (~82%) were breeding residents including 10 (~5%) endemics, 25 (~12%) purely migrants, one vagrant and, 09 (~5%) with mixed resident-migrant status. Among the recorded species, 14 were nationally threatened, 03 were globally vulnerable, and 10 were endemics. We also reported the first sighting of Chestnut-backed Owlet (*Glaucidium castanotum*) and Red-faced Malkoha (*Phaenicophaeus pyrrhocephalus*) from this area. Further, 156 of the recorded species were recorded from forests, 134 from croplands, 44 from Built-up areas, 88 from scrublands, 68 from grasslands, and 91 from inland aquatic habitats. This park is not only significant for biodiversity conservation but also for its' archaeological heritage. The local communities of MNP area are constantly interacting with the wildlife and are highly dependent on many forest products and local natural resources. Consequently, these habitats are threatened with irresponsible human activities, such as forest fires, land fillings, poaching, road kills, forest encroachments, garbage dumping, agrochemicals, granite mining, illicit logging, and road constructions. Moreover, a substantial extent of unprotected adjacent woodlands is subjected to repeated slash-and-burn agriculture. Given the prevalent threats and the rich avifaunal diversity, we recommended that these peripheral habitats of MNP be managed and protected as a buffer zone in near future.

27

Keywords: Red-faced Malkoha, Chestnut-backed Owlet, Maduruoya National Park, Avifaunal diversity, Buffer Zone