

## **Preliminary Survey on Avifaunal Diversity in a Suburban Ecosystem: Nadeniya Estate, Kandy, Sri Lanka**

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The rapidly expanding human population in Sri Lanka has ensued in the reduction of natural habitats which have been converted to human settlements such as industrial sites, agricultural lands, and other infrastructure development. In consequence of these events, the avifauna is forced to ensure their survival by adapting themselves to human-altered settlements like home gardens, plantations, and estates. Therefore, a study was designed to ascertain the avifaunal diversity and abundance: Nadeniya Estate alias Yakange Watta (3.237km<sup>2</sup>) situated at Kiriwaula of Uduuwara in the Kandy district, Central Province (N 7°15'19" E 80°32'41"), to assess the contribution of suburban habitats for the conservation of avifaunal species. Two different habitat types' viz. Tea plantation habitat and home garden habitat were studied using 600 m transects, and bird species within 50 m either side were recorded two times per day, in the morning (6.00-09.00 h) and the evening (16.00-18.00 h), within a period of 5 months from August to December 2019. A total of 480 birds belonging to 33 species, 25 families, and 9 orders were recorded within the area. The Simpson's index and Shannon diversity index were 0.97/2.61, and 0.99/2.78 in the tea plantation habitat and home garden habitat respectively. The most dominant species recorded were the House crow (*Corvus splendens*), Common Myna (*Acridotheres tristis*), and Red-vented Bulbul (*Pycnonotus cafer cafer*), with a relative abundance of 10.81, 11.52, and 11.24% respectively. The least recorded species was the Velvet-fronted Nuthatch (*Sitta frontalis*) with a relative abundance of 0.22%. According to the results, it is evident that more anthropogenic activities have influenced the avifaunal diversity. Alternatively, garden and forest birds were also recorded in the area. Therefore, proper management of the land use is recommended for sustainable conservation of the suburban ecosystems.

**Keywords:** Avifauna, Diversity, Ecosystem, Suburban, Nadeniya Estate