

## Significance of Cloud Forests in Loolkandura Estate, Deltota for conservation of endemic bird Species in Sri Lanka

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### ABSTRACT

The Loolkandura Estate (07° 08' N, 80° 42' E) is located in the central hills of Sri Lanka and is surrounded by patchy cloud forests. Since previous studies on avian endemism in Loolkandura are virtually lacking, the present study was designed to measure the endemic avifaunal diversity of cloud forests in this estate area and to compare it with that of adjoining tea plantations in order to justify its conservation value. A line transect method integrated with point counts with unlimited distance was used to count endemic birds. Peak counting hours were between 0600 h – 0900 h and 1500 h – 1800 h. Shannon Diversity Index (H) and Simpson's Index (1-D) were computed to compare the endemic bird diversity of two habitats. This study recorded 17 out of 33 endemic bird species (51.52 %) in Sri Lanka. Among them, ten bird species including one endangered species (Sri Lanka Whistling Thrush; *Myophonus blighi*) were restricted to the fragmented natural forests. The Sri Lanka White-Eye was the most commonly recorded species (25.68%). Natural forests had high 1-D and H values (1-D = 0.8625, H = 2.3439) than the tea plantation areas. Results of this study highlight the importance of remaining cloud forests of Loolkandura Estate for the survival of endemic bird species in Sri Lanka.

**Keywords:** Endemic Birds; Patchy forests; Central hills; Endangered species; Tea plantations; Conservation