

D-08 Comparison of birds and fresh water fishes in some isolated forests in Kalutara District

P N Ranasinghe^{1,2}, D V N Samarasinghe^{1,3}, D Karunaratne¹

¹ Young Zoologists' Association of Sri Lanka, National Zoological Gardens, Dehiwela, ² Faculty of Applied Sciences, Sabaragamuwa University, Buttala, ³ Dpen University, Nawala, Nugegoda

A number of isolated forests are found in the Kalutara district. Most of them were once attached to each other as the western extension of Sinharaja forest and later were isolated due to human activities. Three of such isolated forests (Kalugala, Morapitiya - Runakanda, and Yagirala) were selected to compare the species diversity and endemicity and to study the faunal affinity of taxa between them.

Checklists of birds and freshwater fishes in these forests were prepared by occasional field visits arranged covering seasonal variations. Almost every habitat in all three forests were studied for preparing checklists. Species recorded by early works were also included in checklists. A habitat value was assigned for each forest considering endemic and total birds and fresh water fish species. Jaccard indices were obtained for total birds and fresh water fish species to study their faunal affinities.

Results show that Morapitiya - Runakanda forest has a lower species diversity of both fish and birds. But this forest has a higher species endemicity. Existence of primary and thick secondary forests as the main components of the vegetation and lack of major habitat differences may be the factors behind these results. This forest also has a lower habitat value for all endemic and total taxa considered, probably due to its larger extent.

Jaccard indices of total and endemic birds show a close affinity between birds of Yagirala and Kalugala while an isolation of those of Morapitiya - Runakanda. Jaccard indices show a close affinity between fish of Kalugala and Morapitiya - Runakanda while an isolation of those of Yagirala from the other 2 forests.
