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**A Preliminary Survey of the Avifaunal Diversity in Pampaimadu Premise of the University of Vavuniya, Vavuniya, Sri Lanka**

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**Abstract**

Vavuniya is a lowland dry zone district of the Northern Province of Sri Lanka, which is still unexplored with a natural forest cover of 1,238 km<sup>2</sup>. Even though there are many kinds of literature concerning the water birds of the Vavuniya, the diversity of tropical avifaunal species is still a gap which was the light of this study. The study area is situated 10 km from the center of Vavuniya along the A30 highway, with the dry-mixed evergreen forest as vegetation. The district is located within the dry zone which experiences a mean temperature of 28° C and annual rainfall of 1,400 mm. It also consists of 02 adjoined tanks along the boundary. The study points were used for the avifaunal survey during mid of March to end of July 2022. Habitat diversity within the study area was discussed using a prepared checklist and the community indices like the Shannon-Weiner index (H'), Simpson's diversity index (D), Simpson's evenness (E), and Species richness (R) across various habitats ecosystem: Woodland-Paddy land (H<sub>1</sub>); Woodland-Water catchment area (H<sub>2</sub>); Forest (H<sub>3</sub>); Grassland with inundated land ecosystem (H<sub>4</sub>); and Manage Garden with Occasional trees (H<sub>5</sub>) of the study area. The checklist resulted in a total observation of 93 avifaunal species including 87 resident and 06 migrant species belonging to 47 families (including 09 endemics, and 05 nationally threatened species). Rock Pigeon (*Columba livia*) belongs to Family Columbidae with the highest frequency (68%, n=123) and is evenly distributed across different habitats but the family Ardeidae is found extensively dominating in H<sub>5</sub> (39%). H<sub>1</sub> is with the highest H' (3.5) and D (0.96); while H<sub>3</sub> has the highest R (2.52) and E (0.62). The seasonally inundated habitats H<sub>2</sub> and H<sub>4</sub> bring water birds to the study area. It also increases the availability of avifaunal insectivores. Many anthropogenic disturbances, such as habitat alterations, intentional wildfire, and road mortality are the key threats encountered by the avifaunal species in the study area. In addition to that, the activity of stray dogs within the premises was observed to be a potential threat during the breeding season. Appropriate conservation strategies including landscape management, conservation of available forest land, and proper awareness of neighboring local communities are necessary to maintain the current ecological status.

**Keywords:** Avifauna, Checklist, Habitat variation, Species diversity, Vavuniya