

A STUDY OF THREATENED FAUNA DUE TO ECOSYSTEM DEGRADATION CAUSED BY DRYING OUT OF A LAKE: A REFERENCE TO WADIGA WEWA, HOROWPOTHANA.

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Drying out of water bodies by human activities, climate changes or any other natural phenomena can cause significant damage to the surrounding ecosystem. This study aimed to assess the destruction of faunal diversity caused by such incidents. The research was based at “Wadiga Wewa” in Horowpothana. Basically, quantitative approach was initiated through field observations and specimen collection within around three weeks of time period starting from 8/4/2024. Specimens were collected using observational surveys as well direct counting and a total of 72 specimens were collected. From which 51% - *Pterygoplichthys pardalis*, 15% - *Euphyctis hexadactylus*, 8% - *Euphyctis cyanophlyctis*, 6% - *Oreochromis sp.*, 5% - *Garra ceylonensis*, 3% - *Labeo rohita*, 4% - *Channa striata*, 4% - *Anguilla bicolor*, 2% - *Hoplobatrachus crassus* and 2% - *Channa marulius* were recorded as well 08 living *Clarias brachysoma*, 12 living *Heteropneustes fossilis*, 01 living *Geochelone elegans* and 06 living *Melanochelys trijuga thermalis* individuals were observed. Additionally, over 100 unidentified bone and body fragments were discovered within the dried lakebed. The study determines which species are most impacted. Some species indicated significant and rapid loss of their sightings around the lake area along with the time, which were semi-aquatic amphibians like *Polypedates maculatus* and avian species like *Halcyon smyrnensis*. Since the beginning, the number of *P. maculatus* sightings has dropped from 14 to 3. Loss of habitats, lack of food, growth of invasive species and increase in predators are the reasons for the collapse of faunal diversity. Water management and habitat restoration are vital for the prevention of vulnerable fauna.

Keywords: Faunal Diversity, Species, Threatened, Specimen, Dried Lake

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