ISSN: 1391-8796
Proceedings of 9th Ruhuna International Science & Technology Conference
University of Ruhuna, Matara, Sri Lanka
January 19, 2022

Variation of freshwater fish diversity in Podi wewa and Maunawa wewa in the Kurunegala district in Sri Lanka

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Anthropogenic activities may impact ichthyofauna in freshwater bodies, and therefore, baseline information on fish diversity is needed to monitor the trends in abundance. The present study was undertaken to identify and compare the diversity of freshwater fishes in Podi wewa (Site 1) in Ihala Kadigamuwa village and Maunawa wewa (Site 2) in Maunawa village, Kurunegala district, North-Western Province of Sri Lanka from October 2020 to May 2021. Weekly sample collections were made, and fish were identified to the species level by morphological features using standard taxonomical keys. Eight fish species belonging to five families from Podi wewa and six species representing five families from Maunawa wewa were identified. These species were *Glossogobius giuris* (Family Gobiidae), *Lepidocephalichthys thermalis* (Family Cobitidae), *Heteropneustis fossilis* (Family Heteropneustidae), *Puntius vittatus, Esomus thermoicus*, *Rasbora caverii* and *Puntius chola* (Family Cyprinidae), *Channa punctata* and *Channa striata* (Family Channidae), *Anabas testudineus* (Family Anabantidae), and *Trichogaster pectoralis* (Family Osphronemidae). Order Cypriniformes were the most species-rich group among the identified species. *Puntius vittatus*, *Rasbora caverii* and *Trichogaster pectoralis* were present at both sites 1 and 2. The most abundant species at site 1 was *Trichogaster pectoralis* (44.12%) and *Puntius vittatus* (94.6%) at site 2. Although the total abundance of fish in Podi wewa was lower (n= 68) than that in the Maunawa wewa (n= 268), the fish diversity (H′= 1.3141) and species richness (SR= 8) were higher at Podi wewa than those in the Maunawa wewa (H′= 0.4148, SR= 6) based on the Shannon Weiner index. Over-exploitation of water resources and fishery resources and water pollution are the major threats to the occurrence of fish species in these freshwater bodies. Therefore, strategies for conservation of fish species are needed in the future.

Keywords: Abundance, Diversity, Freshwater fishes, Maunawa wewa, Podi wewa

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