

PP-17

Spatio-Temporal Variation in Fish Assemblage in West Babai, Dang, Nepal

Ram Bahadur Khadka

Central Department Of Zoology
Tribhuvan University, Kirtipur
Kathmandu, Nepal
rbkhadka804@gmail.com

The study focused on spatio-temporal variation in fish assemblages in West Babai River, Dang, Nepal which originates from the eastern end of Dang valley. The fish samples and water parameters were collected from March to December, 2023. In Each season, sampling stations were visited once to gather data. Samples were collected from three stations; i.e. Kalitara (I), Jaluke(II) and Purandhara(III) of Babai Gaupalika. Fish sampling was done by using cast net (1x1 cm²), hook and line and diverting river course with the assistance of local fishermen. The collected fish samples were identified by using keys (Shrestha 2019, Jayaram 1999).

A total 784 individuals were collected belonging to six Order, eight families and 15 genera. Cypriniformes exhibited highly dominant order, which contained 15 species. Beloniformes and Perciformes were less dominant, both consisting only one species. *Pethia ticto* appeared as the most abundant species, comprising 13.13% of the total catch, while *Danio rerio* was the least dominant, accounting for only 0.12%. The Shannon-Weiner diversity index was highest in summer (2.86) and at station I & II (1.87) whereas lowest in winter (1.49) and at station III (1.81). The Redundancy Analysis (RDA) ordination plot highlighted spring and summer as optimal seasons for the existing fish population. Notably, the analysis of water quality confirmed that the Babai River in Dang, Western Nepal, provides favorable conditions for fish growth and development. This study establishes foundational data crucial for future investigations concerning fish diversity, distribution and water quality in the Babai River region.

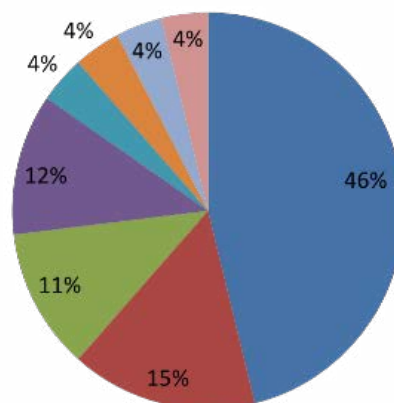
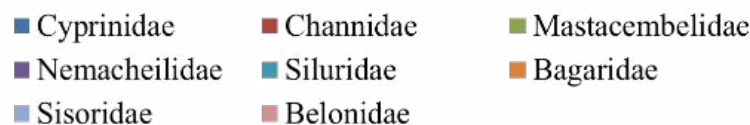


Figure: Family wise distribution of fishes