

Seasonal Variation in Feeding Indices of *Schizothorax richardsonii* from a Himalayan River Ecosystem

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Abstract

Feeding indices are important tools used to assess the feeding behavior, dietary habits, and ecological role of fish species. The present study investigates the feeding indices of *Schizothorax richardsonii*, an endangered Himalayan fish species from Uttarakhand. A total of 74 fish specimens were collected over a period of 12 months, and standard methods were employed for sampling and analysis.

The results revealed clear seasonal variations in feeding activity. The gastro-somatic index (GSI) reached its highest mean value in April (20.38), indicating active feeding, while the lowest value was recorded in January, suggesting reduced feeding activity. The relative length of the gut (RLG) ranged from 2.53 to 5.54, confirming the herbivorous feeding nature of the species. Feeding intensity showed an increasing trend during November to January and May to June, whereas a decline was observed from July to September and March to April.

A strong positive correlation was observed between fish weight and gut weight, as well as between fish length and gut length, indicating a close relationship between growth and feeding adaptation. The findings of this study provide valuable insights into the feeding ecology of the species and highlight its role in the river ecosystem. Such information is essential for effective conservation and sustainable management of this endangered fish species.

Keywords

Feeding behavior, Feeding intensity, Relative length of gut (RLG), Gastro-somatic index (GSI), Feeding ecology.