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Review

Feeding habit and pollution indicating food items of *Mystus gulio* (Hamilton, 1822) in the inward waters of Mumbai coast

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Highlights

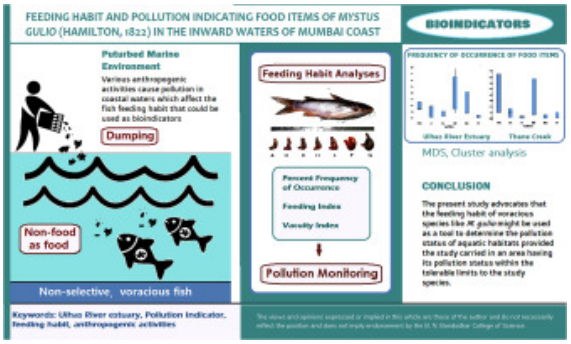
- Non-selective, voracious and euryphagous fish to determine the pollution levels
- Feeding habit and the food items fish from Ulhas River Estuary and Thane Creek
- Feeding parameters with non-food component exhibited anthropogenic origin.
- Spatio-temporal diet of *Mystus gulio*, reflected pollution status as bioindicator.

Abstract

The study considered factors related to feeding habits such as food, frequency of occurrence (F), feeding index (IA) and vacancy index (VI). The aim was to determine the relationship between the feeding habits of a non-selective, euryphagous, voracious and pollution-tolerant fish species in a contaminated habitat. The seasonal food and feeding pattern of *Mystus gulio*, long whiskered catfish, from Ulhas river estuary and Thane Creek analysed from stomach content depicted the pollution status of the ambient environment based on the feeding pattern using box-whiskered plot, MDS and cluster analysis. Coconut husk fibres, eggshells, chicken feathers, pieces of brick, sand particles, plastic fibres, etc., represented the non-food component of anthropogenic origin. The presence of non-food items indicates the severely degraded

conditions in the study areas, especially in Thane Creek. Although a native fish species tolerant of pollution, the survival of *M. gulio* in Thane Creek is threatened.

Graphical abstract



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Keywords

Ulhas River estuary; Thane Creek; *Mystus gulio*; Pollution indicator; Feeding habit; Anthropogenic activities

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Data availability

No data was used for the research described in the article.

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