

STUDIES ON BIODIVERSITY AND ABUNDANCE OF FISHES IN FLOODPLAIN BEELS OF BANGLADESH

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ABSTRACT

The present investigation discloses the outstanding richness and diversity of the fish fauna of three floodplain beels namely Boro *beel*, Borobila *beel* and Gawha *beel* of Bangladesh. The Shannon Wiener index ($H' = -\sum P_i \log_2 P_i$) was used to measure the extent of diversity by combining aspects of species richness and evenness index of fishes.

A total of 72 species of fish and prawns belonged to nine orders, 24 families and 53 genera were recorded from the Boro *beel*, out of which 64 indigenous, 6 exotic, and remaining two were prawn species. Among these species, Cyprinidae dominated with 21 species followed by Bagridae (7), Schilbeidae (5), Osphronemidae (4) and Channidae (Ophiocephalidae) (4) and Ambassidae, Clupeidae and Mastacembelidae representing three species each.

In the case of Borobila *beel*, altogether 58 species of fish and prawns represented eight orders, twenty families and 41 genera were recorded during the study, out of which 57 were fish species and remained one was prawn. Cyprinidae was found to be dominating family (19 species) followed by Bagridae (7), Channidae (4), Osphronemidae (4) and Ambassidae and Mastacembelidae having three species each. Cobitidae, Siluridae, Schilbeidae and Tetradontidae contained two species each and remaining ten families with one species each.

Study also revealed the presence of 38 species of fish belonged to six orders, 17 families and 28 genera in the Gawha *beel* of which 33 were indigenous and five exotic species. Cyprinidae dominated the fish communities with 14 species followed by four species of Bagridae, Ambassidae and Mastacembelidae each contained three species and Channidae having two species. A total of 75 fish species belonged to 23 families were also recorded from different Indian water bodies. Considering the species diversity and abundance, the floodplain *beels* to be preserved for conservation of fish faunal diversity and the nutritional security of the peoples of developing and under developed countries.

Key words: Floodplain, beels, Biodiversity, Fish, Abundance, Seasonal variation, Trophic groups, Tropho- spatial distribution, Conservation.

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