

Status of fishery and its management in Kakorikota Beel of Majuli Island, Assam

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The present study was carried out to assess fishery status and management practices of Kakorikota beel of Majuli Island, Assam, from May 2010 to April 2011. Among the fish families encountered Cyprinidae dominated with 37 per cent of the total species recorded. The species contribution was seen lowest by families Balitoridae, Cobitidae, Sisoridae, Badidae, Gobiidae, Erethistidae, Belonidae, Nandidae, Synbranchidae, Anguillidae, Anabantidae, Heteropneustidae, Clariidae, Tetraodontidae, Notopteridae and Mastacembelidae together contributing 29 per cent. Among the cat fishes the family Bagridae contributed 10 per cent, followed by Schilbeidae and Siluridae contributing 5 per cent and 4 per cent, respectively. The other families contributed were Channidae (7%), Osphronemidae (4%) and Ambassidae (4%). On the usability and fishery importance it was found that 66 per cent of fish species have food as well as ornamental value, 25 per cent were found to have only food value, 4 per cent were non-food ornamental fishes and 5 per cent fishes were found to have food, ornamental as well as sports values. The yearly fish catch in the Kakorikota beel, as reported by leaseholder, from 2002-2003 to 2010-2011 indicated that the fish catch is in declining trend. The Kakorikota beel exhibits a diverse fish population supporting a multi-species fishery, which is more complex to understand but is more resilient. Though the beel has multi-species fisheries, only a few species dominated the landings. Siltation in the connecting channel and poaching are also other problems observed. Immediate needs of fishers of the beel include proper transportation, communication and marketing facilities, construction of fish hatcheries to encourage aquaculture practices. The data generated in the present study would help to evolve appropriate strategies for sustained development of fisheries of the Kakorikota beel.

Key words : Kakorikota wetland, Majuli island, Assam, Fishery and management status.

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INTRODUCTION

Floodplain wetlands (beels) form an integral component of the Ganga and Brahmaputra river basins which are either seasonally inundated by the overspill from the main river channels or receive run off water from the catchments. These water bodies together cover an area of 2.02 lakh hectares and constitute important fishery resources in the state of Assam, West Bengal, Bihar, Manipur, Arunachal Pradesh, Tripura and Meghalaya (Sugunan and Bhattacharjya, 2000). Among the Indian states, Assam has the maximum number and the largest waters area under floodplain wetlands (beels), mainly associated with the Brahmaputra and Barak river systems (Sugunan and Bhattacharjya, 2000). The state has 1,392 beels covering 100,000 ha, which is 49.5 per cent of the total area

under floodplain wetlands in India. Beels constitute 28.9 per cent of the total fishery resources (347,000 ha) and as much as 70.4 per cent of lentic water bodies (142,000 ha) of Assam (Bhattacharjya, 2002). Thus, they are the second largest and the most potential fishery resources of the state. The northeastern India with its vast and varied topography and watershed pattern has been recognized as a global hot spot of fresh water fish diversity (Kottelat and Whitten, 1996). Recently, a good number of new species have also been reported from the northeastern India (Menon *et al.*, 2000; Vishwanath and Shanta, 2004) indicating the scope for exploring more on the rich ichthyofaunistic of the region.

The Majuli River Island (93°30' - 94°35' E and 26°50' - 27°10' N) is located in the north of Jorhat district of Assam state in India and is bounded by three major rivers *viz.*,