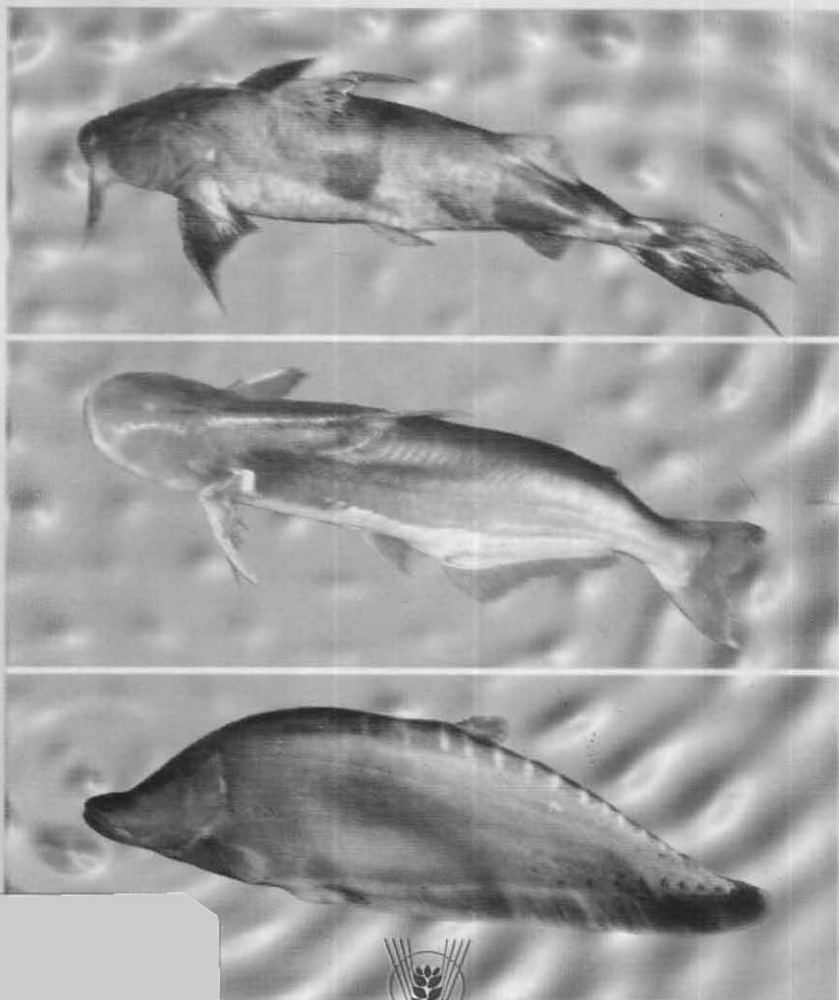


FISH BIODIVERSITY *of* NORTH-EAST INDIA



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Distribution Pattern and Conservation Needs of the Fish Germplasm Resources of North East Hill Region

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Fish faunistic studies conducted by several authors indicated that nearly 200 species belonging to about 30 families occur in North East hill region. The studies revealed that 33 species are exclusively common with the Indo-Gangetic fauna, 19 species share identity with the Eastern Himalayan fauna and 11 are common with Burmese fauna. Earlier studies by Ghosh and Lipton (1982) indicated 23 species as restricted in their distribution to the North East hill region. These belong to the genera *Barilius*, *Danio*, *Garra*, *Puntius*, *Schizopygopsys*, *Aorichthys*, *Lepidocephalus*, *Nemacheilus*, *Exostoma*, *Glyptothorax*, *Amphipnous* and *Pillaia*. The Chindwin drainage of Manipur and Nagaland states represent some of the Burmese fauna which includes eleven species belonging to the genera *Barilius*, *Osteoparaza*, *Botia*, *Lepidocephalus*, *Nemacheilus*, *Glyptothorax* and *Monopterus*. Every new survey of North East India brings out new species or records. For example, *Apocryptes bato* was recorded for the first time from the water-logged areas of Tripura.

The topography of the region provides diverse habitats for the fish population. For example, the rivers and tributaries draining the northern bank of Brahmaputra receive snow melt water which results in different temperature regimes, water velocity and consequent zonations (e.g. loach

or head, rapid clear and rapid turbid water zones). However, such distinct zonation could not be observed in the southern bank of Brahmaputra, except in certain areas of Nagaland. In addition to the hill streams, the water-logged areas in the plains of Assam, Manipur and Tripura favour the distribution of several species which share their identity with those species inhabiting similar habitats in other parts of the country.

The members of economically important species such as chocolate mahseer, *Neolissocheilus hexagonolepis*, recorded from streams and rivers of medium altitude migrate to the lower reaches during winter. The deep-bodied mahseer, *Tor tor* and golden mahseer *T. putitora* inhabit clear fast flowing waters. The diminishing size range of mahseers in regular angling competition indicates the threat to the species. In addition to the mahseers, other important commercial species include *Labeo nandina*, *L. dero*, *L. pangusia*, *Puntius clavatus*, *Crossocheilus latius*, *Semiplotus semiplotus*, *Barilius bola*, *Chagunius chagunio*, *Garra gotyla* and a few species of *Schizothorax*. The North East hill region also has several unique ornamental fish species. Of these, several species of loaches need elaborate studies on their habitats and distribution in order to undertake conservation programmes. The *Mastacembelus armatus* and *M. pancalus* and the toxic fish *Tetraodon cutcutia* from plains also require further studies to understand their distribution pattern.

Lack of control over the water bodies, indiscriminate fishing, dynamiting, lack of management and fishery improvement programmes as well as lack of awareness could be considered as main reasons for the decline of fish fauna of North East hill.

- * The work is based on earlier work done by the author at ICAR Research Complex for NEH Region.