

- The aquatic resources of North East India are highly diversified. The region on account of its unique topographical and geographical diversities represents an important floristic and faunistic zone in the world in respect to biodiversity. The biogeographic zone of the region is one of the most significant zones among the twelve biogeographic zones of India (Rodger and Panwar, 1988). It also represents a transition among Indian, Indo-Malayan and Indo-Chinese biogeographic region as well as a meeting place of Himalayan mountain with that of peninsular India. The Brahmaputra and Barak river systems of Assam in North East part of India sustains substantial number of fish germplasm and so considered as one of the hotspots of freshwater fish biodiversity in the sphere (Kottelat and Whitten, 1996). India is fortunate to have vast and varied fish germplasm resources consisting about 11% of the total fish biodiversity of 20,000 species of the world (Mahanta, *et al.* 2003). The North East region shares its fish fauna predominately with that of the Indo- Gangetic fauna and to a small extent with Burmese and South China fish fauna (Yadav and Chandra, 1994). Out of a total number of about 20,000 fish species estimated to occur throughout the world, more than 200 species are registered to be found in the Brahmaputra drainage system (Sen, 2000). A latest survey indicates the existence of 306 fish species in this region (Biswas pers. comm.). This is approximately 33.13% of the total Indian freshwater fishes.
- As far as Jeypore Reserve Forest is concerned, a total of 69 species of fish belonging to 21 families and 48 genera were recorded in the preliminary survey carried out during 2009-10. The survey area included River Burhi Dihing along with its tributaries. Out of these, four families viz. Cyprinidae, Bagridae, Schilbeidae, Cobitidae were dominant in the water bodies of the Jeypore RF. Further, cyprinid is the major group of fish fauna, accounting for 40.58% of the total species recorded. Cyprinidae includes 28 species of which the genus *Labeo* is having seven species followed by *Barilius* (4) and *Puntius* (3). The other common genera are *Aspidoparia*, *Phylorinchus*, *Raimas*, *Danio*, *Salmostoma*, *Cirrhinus*, *Salmostoma*, *Erethistes* and *Rita*..
- As far as conservation status is concerned, 36 species are under LR-nt category, 8 species as NE category, 14 species as VU, 5 species belong to LR-lc , 4 species in EN category and only 1 species in DD category.

Habitat types and major fish species

- a. Rapid current having stony bed: *Psilorhynchus balitora*, *Acanthobotitis botia*, *Lepidocephalus guntea*
- b. Deep pools with sandy bed: *Rita rita*, *Notopterus notopterus*, *Salmostoma bacila*, *Cirrhinus reba*, *Sperata aor*, *Clupisoma garua*, *Wallago attu*, *Labeo gonius*, *Labeo dero*,
- c. Moderate current having sand-pebble substratum: *Devario devario*, *Danio dangila*, *Danio aequipinnatus*, *Raiamus bola*.
- d. Shallow stream having gravel bed with rooted macrophytes: *Erethistes hara*, *Botia dario*, *Psilorhynchus balitora*
- e. Very shallow weed infested nallah- *Olyra longicaudata*, *Lepidocephalus guntea*

The role of surveyed fish species in riverine ecosystem:

- The loaches (*Psilorhynchus balitora*, *Acanthobotitis botia*, *Lepidocephalus guntea*, *Botia dario*) are the key species in the rapid stretches of the river. They are mainly detritivorous and as such utilize the bottom food spectrum of a riverine ecosystem.
- The barils (*Danio*, *Devario*) are the major fish component in the upstream of the river. They prefer relatively moderate current and are usually herbi-omnivorous in their feeding habit.
- The shallow stream dwellers like *Erethistes and Botia* are carni-omnivorous and require adequate shelter/ cover for hiding. This is why they prefer pebbles or/and macrophyte cover for capturing their prey.
- The river is characterized by alternate riffles and pools. The later habitat is occupied by relatively larger sized fish like *Rita*, *Cirrhinus*, *Labeo*, *Wallago*, *Clupisoma*, *Sperata* which takes the advantage of the depth of the river for their dwelling and feeding ground.
- The distributaries of the Burhi Dehing are usually seasonal rivulets (locally called as nallah) which harbour miscellaneous group of fishes. These fishes enter into nallahs during rainy months for foraging and possibly breed there.

Fishes special to Jeypore:

***Olyra longicaudata*:** Locally known as *tulaji*. It resembles *Heteropneustes fossilis (singhi)* in shape and size. But it is found only in hilly areas, so also named as *pahari singhi*. The fish is characterized by the elongated body, blackish in colour with two pale longitudinal bands, one each on above and below the

lateral line. A brown colour longitudinal band also runs along the lateral line. The caudal fin is forked with the longer upper lobe. It has moderate food value.

Psilorhynchus balitora: Locally known as *balitora*. Body is more or less cylindrical; head portion is conical in shape. The grayish colour fish possesses scales with darker edges. The dorsal and caudal fin is with blackish bands which often break into dusky patches. It is also an edible fish.

Raiamas bola: This is a rare category carni-omnivorous fish, locally known as *korang*. Its body is compressed and slender with sharply pointed head. The dorsal view of the fish is greenish grey, silvery towards belly. Several greenish-blue blotches are present above and below the lateral line. The habitat structure of the rainforest is suitable for colouration pattern of this fish.

Danio aequipinnatus: The streamline body of the fish is moderately compressed. A blue colour band runs from head to caudal fin along the lateral line. Fins tinged orange coloured, yellowish tinge on either side of the lateral line.

Anguilla benghalensis: Locally known as *nagbami*. This snake like migratory fish is carnivorous in its feeding habit. It migrates upstream of a river for foraging. This is an endangered species.

Dolphin: Till date not a single scientific study have been carried out on the availability of this endangered cetacean species. Dolphins are not seen in the Burhi Dehing through out the year but occasionally 2-3 dolphin seen during monsoon as reported by the local fisherman. This species migrates to the upstream during high flood but never stay there for long time. Apparently dolphin enters into the Burhi Dehing river from the Brahmaputra.