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Session 20

# **FISH AND FISHERIES OF ESTUARIES OF THE WEST COAST OF INDIA**

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# Narmada estuary

- This estuary is formed by the river Narmada which drains into the Gulf of Cambay in the west coast.
- *Tenualose ilisha* forms an important fishery in the Narmada estuary and some distance upstream.
- Catches at the estuary mouth comprise a mixture of *H. ilisha* and *T. sinensis*. Mulletts and prawns are also common in the estuary.
- The annual fish production is about 4000 tonnes.

# Tapti estuary

- Tapti estuary is situated in Gulf of Cambay near Surat in Gujarat state.
- It is formed by the river Tapti which meets the Arabian sea through Gulf of Cambay.
- Fisheries potential of the Tapti estuary has drastically declined after the commissioning of the Ukai dam.

# Asthamudi Estuary

- It is situated in the Kollam district of the state, Kerala.
- Ninety-seven species belonging to 39 families of fishes, prawns, crabs and clams, etc., are available here. Of the 39 families, 12 contribute to the fishery substantially.
- Mulletts and the pearl spot are the most abundant forms having a good market value. Anchovies form a seasonal fishery from July – October.

- It is rich in prawn resources and the peak prawn fishery season lasts from Aug – Oct.
- Traditional dug-out canoes are the common fishing crafts.
- Four types of gears, namely seine nets, cast nets, Chinese dipnets and drag nets are commonly used. In addition to these gears, Lure fishing and Scare-line fishing are also employed. Besides the capture fishery, it provides a good scope for fish and prawn culture.

# Mandovi-Zuari Estuarine System

- These estuaries are situated in the state, Goa. They discharge into the Arabian sea through the Marmugoa and Aguda Bay respectively.
- In the Zuari estuary, almost marine conditions prevail with a little freshwater drainage. In the Mandovi estuary, the freshwater drainage continues throughout the year.
- The annual fish catch from the estuarine system varies from 150 to 350 tonnes with an average value of about 200 tonnes.

- Demersal fishes, mainly prawns and finfishes contribute from 50 to 70 % of the total catch. The dominant group of the demersal finfishes includes catfishes, flatfishes, rock cod and sand whiting.
- There are extensive beds of the estuarine clam, *Meretrix casta*, the average yield of this clam from different beds is about 80 tonnes. In Goa, there is a considerable scope for cultivation of bivalves on ropes suspended from floating rafts in the estuaries.

# Nethravathi and other adjacent estuaries

- A large number of estuaries are found in the South Kanara district in Karnataka, of which the Nethravathi-Gurupur estuary and the estuaries at Choodapur are the most important.
- The fish catches in the estuaries consist of *Sillago* spp., *Thrissocles* spp., *Anadontostoma chacunda*, *Ambassis* sp., *Ilisha indica*, *Kowala* coval, *Platycephalus* sp., *Lutjanus* spp., *Gerrus* spp., *Leiognathus* spp., *Sphyraena* spp., *Mugil* spp., *Hemiramphus* spp., *Tenthis* spp., *Stolephorus indica*, *Caranx* spp., *Chironemus* spp., *Belone* spp., *Epinephelus* spp., *Tachysurus* spp., *Pseudosciaena* spp., *Therapon jarbua*, *Mystus gulio* sp. etc.



- Fish population in the estuaries is mainly composed of the juveniles and immature individuals. Estuaries are a potential source of brackishwater fish seed especially milk fish and mullet.
- Crustacean resources are limited. Prawns are more abundant than crabs. *Metapenaeus dobsoni*, *M. monoceros* and *F. indicus* are the dominant prawns and *Scylla serrata*, the crab. Clams form a regular fishery of local importance.
- Important gears are shore seines, gill nets, cast nets, hook and line and mini-otter trawls. Crabs are caught in bottom set gill nets used for the capture of other fishes.

# Kalinadi, Aghnashini and Sharavati Estuaries

- These estuaries are situated in the North Canara district of Karnataka.
- Fauna mainly comprises bivalves, gastropods and crabs. Bivalves dominated in areas with sandy bottom.
- Several diversified methods of traditional fishing are used in this estuary almost throughout the year. These include gill nets, cast nets, hook & line, pole & line, drag nets, scoop nets, light fishing, scare line, crab fishing with traps and clam fishing by hand-picking at low tide or by dragging bagnets of wire meshes. Little is known about the fisheries of these estuaries.

# Manakudy Estuary

- This estuary of river Puzhayar is situated about 8 km North of Cape Comorin (Tamilnadu). Total area is about 145 ha. It is bordered all along with vast stretches of salt pans on either side.
- *Tilapia, Mugil, Etroplus, Gerrus, Chanos, Therapon, Ambassis, Lates, Anguilla* and *Mystus* are the common fish species. A few species of caridean prawns, *Macrobrachium* spp., and the penaeid prawns viz. *F. indicus, P. monodon, M. dobsoni* and *M. monoceres* are also common. About 10 tonnes of fishes are caught annually, prawns constituting about 4 tonnes. More than 90% of the prawns are caught by cast net.