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Session 18

FISH AND FISHERIES OF ESTUARIES OF THE EAST COAST OF INDIA

DEV

Mahanadi Estuary

- Mahanadi estuary is situated in Cuttack and Puri district of Orissa. It is formed by the river Mahanadi which meets the Bay of Bengal. Its total area is 30,000 ha.
- The annual fish production is about 550 tonnes. The major fishes found in this estuary include mullets, seabass, sciaenids and prawns.
- This estuary is characterized by poor tidal oscillations and flood discharge due to sand bar formation in the sea mouth. This has affected fish yield from the estuary.

Rushikulya Estuary

- This estuary is located in Orissa. This estuary is largely being used for the collection of prawn seeds and fries of milkfish for aquaculture.
- The milkfish, *Chanos chanos* is one of the fin fishery resources of this area. Three peak occurrence of the *Chanos* sp. fry is recorded during the month of August, September and April (17.52%, 14.96% and 10.1% respectively). The lowest catch of the fry is observed during December (5.66%). The variation in the distribution is related with the physical parameters. In addition to these species, there is a regular fishery of other species and many estuarine fishes are caught throughout the year.

Godavari Estuary

- The Godavari estuary is situated at the place where the 1330 km long Godavari meets the Bay of Bengal on the east coast of India in the state of Andhra Pradesh.
- River Godavari divides at Dowlaiswaram into two principal distributaries viz., the Vasishta and the Gautami which enclose a wide delta between them. The tidal effect is up to 45 km from the river mouth.
- The total area of this estuary is about 18000 ha. There are about 185 species of fishes excluding clupeids. The annual fish production is about 5000 tonnes.

- Prawns form an important fishery in the Gautami-Godavari estuary. Whitebait, *Anchoviella commersonii* is abundant from Feb – June when the salinity is high and these are absent during the flood period when the salinity is low. *Setipinna godavariensis* and the sciaenid, *Pseudosciaena axillaries* form notable fishery.
- Mulletts form one third of the total fish catch. Other species of commercial importance are *Pristipoma hasta*, *Leiognathus* sp., *Gerres filamentosus*, *Caranx* sp., *Sillago sihama*, *Gobius* sp., *Sciaena* sp., *Platycephalus* and *Lates calcarifer* , etc. Other prominent fishes include elasmobranchs, pomfrets, mackerels, perches and ribbonfish.

- It is well known for its rich prawn fishery. *Metapenaeus monoceros*, *M. brevicornis*, *M. dobsoni*, *M. affinis*, *Fenero penaeus indicus*, *P. monodon*, *P. semisulcatus*, *P. merguensis* and *P. japonicus* are the common prawns occurring here.
- **Of the several species of prawns, *M. monoceros*** which is the most **abundant prawn**, is available in the lower reaches of the estuary, particularly in the mangrove swamps and backwaters.
- The fisheries of Godavari estuary is being **affected severely by the sand bar formation.**
- Shore seines, dragnet, bagnet, gill net and stake nets are the gears commonly used in this estuary. DEV