



## MARINE AQUARIUM AND REGIONAL CENTRE ZOOLOGICAL SURVEY OF INDIA, DIGHA, WEST BENGAL



The marine ecosystems in the coastal areas of India provide a unique assemblage of faunal resources, which has been studied since 19th Century. Even then, much remains to be known specially on biodiversity, behavioral ecology, biological rhythms, environmental impacts, etc. The northern east coast of India offers ideal locations for such studies. The coastal areas at Digha in East Midnapore district of West Bengal provide a unique habitat, being situated close to the Gangetic mouth, with a flat beach and a straight coastline.

The Marine Aquarium and Regional Centre (MARC) in Digha, is one of the 16 Regional Centres of the Zoological Survey of India. The Centre was established in 1989, during the Sixth five year plan under the Prime Minister's package programme. The Centre was set up with objectives of conducting educational and awareness programmes through the marine aquarium and providing infrastructure facility for conducting professional training courses on studying the coastal and marine ecosystem. The Marine Aquarium and Regional Centre is located within an area of 6.5 acres on the Digha coast. MARC was selected as a venue for the British training programme on Integrated Coastal Zone Management in 1996 and 1997 and also for the programmes on ICZM supported by the West Bengal Government and Government of India. The Centre is also having Projects sponsored by World Bank.

MARC has the largest inbuilt marine aquarium in the country. The aquarium has marine and fresh water sections. Marine section in the



aquarium is equipped with 22 tanks, each of 8000 lt. capacity and 2 large tanks of 14000 lt. capacity.

The fresh water section consists of 8 small tanks. The aquarium is equipped with sea water circulation system and advanced filtration unit. The aquarium tanks are equipped with compressed air supply, light and regulated supply of inflow and outflow of water. The Aquarium was opened for public on 4th February, 2003. Species exhibits include sea anemones, horse shoe crabs, fiddler crabs, lobsters, starfishes, sharks, rays, terapons, scatophagus, eels, butterfly fishes, sea snakes etc.

### Major Programme Undertaken

- ♦ Faunal diversity with special reference to prawns and crabs in relation to physic-chemical parameters
- ♦ Coastal invertebrates of Digha and adjoining areas
- ♦ Study of marine invertebrates from West Bengal and Orissa coast
- ♦ Status survey of marine reptiles (turtles & sea snakes) from West Bengal and Orissa
- ♦ Periodical determination of heavy metals, pollutants, hydrocarbons and insecticides in sea water samples in and around Digha
- ♦ Settlement and population studies of marine benthic fauna around Digha coast
- ♦ Taxonomical study of ornamental fauna around Digha coast
- ♦ Study of macro-benthic invertebrate fauna around Gujarat coast.

### Areas surveyed

Under the various assigned programmes, the researchers of the Centre extensively surveyed coastal areas of West Bengal, Orissa, Gujarat states so far. The Centre is also focusing on monitoring of Digha coast.

### Major Scientific Contribution

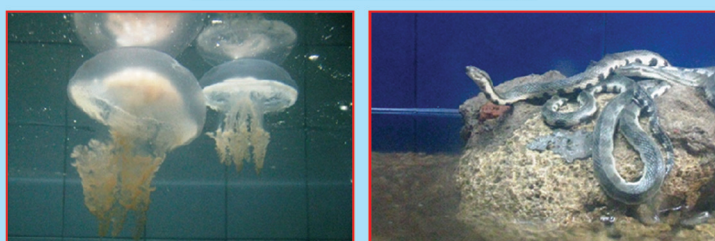
The researchers of the Centre have recorded around 100 marine faunal elements for the first time from the area. Of these, 3 records are new to Indian waters. Efforts are also made to study the captivity behavior of various species and their breeding.





## Available scientific expertise

The Centre has expertise on marine fishes, molluscs, macrobenthic fauna, meiobenthic fauna, crustacea, corals, etc. as well as in marine biology and ecology of marine environs.



## National Zoological Collection (NZC)

The Centre currently holds around 35,000 specimens of vertebrates and invertebrates.



## Modern Infrastructure and Advanced Research Facilities

The Centre has well equipped laboratories to perform research in biological, chemical and physical aspects of marine ecosystem. There are series of various analytical equipments in the Centre for analysis of various physico-chemical parameters as well as different survey and sampling tools for conducting marine sampling and surveys. The Centre also has advanced microscopes.

## Publications

Scientists of the Centre have published one book and 60 research papers were published in various reputed national and international journals as well as in seminar proceedings.

- ♦ Ichthyofauna of Digha
- ♦ Macro-benthic fauna of Digha
- ♦ Coral reefs studies and managment
- ♦ Cruastaceans
- ♦ Captivity studies in aquarium
- ♦ Environmental studies
- ♦ Marine mammals and reptiles
- ♦ Horse-shoe crabs

## Library

The library of the Centre has 1,759 books and 348 volumes of various journals pertaining to marine biodiversity and aquarium maintenance.

## Museum

The museum of the Centre has in display representatives of various faunal group of the locality.



## Other Extension Services

The Centre offers advisory services to various local schools, colleges, universities and research institutions for undergoing various academic and scientific programmes. The Centre also actively provides services to State Government Departments for identification of fauna in the area on request. Services are also provided to Central Marine Fisheries Research Institute and National Metallurgical Research Laboratory. Lectures are delivered on various occasions to groups of schools, colleges and universities during their

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