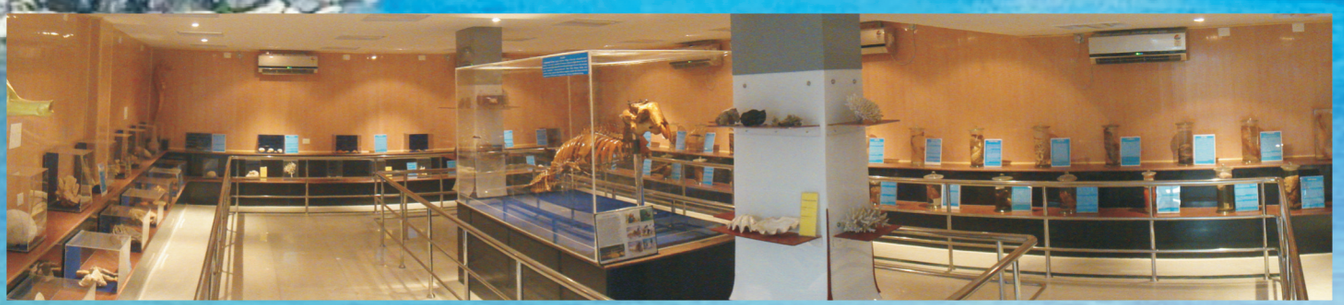
Marine Biology Regional Centre
Zoological Survey of India
Chennai, Tamil Nadu

Government of India
Ministry of Environment and Forests

India has a coastline of about 8000 km with the Exclusive Economic Zone (EEZ) of 2.02 million km2 – adjoining the continental regions and offshore islands – which represents about 2.7% of surface area of the Indian Ocean. A wide range of coastal ecosystems such as estuaries, lagoons, mangroves, backwaters, salt marshes, rocky coasts, sandy stretches and coral reefs are represented in India. Besides, the three gulfs, the Gulf of Mannar on the East coast and the Gulf of Kutchch and Gulf of Kambhat on the West as well as the two Island ecosystems of Lakshadweep and Andaman and Nicobar Islands add to the marine ecosystem diversity of India.

Given the impressive diversity of ecosystems and the significance of recording the biodiversity status, in April 1959 a Marine Survey Unit was formed in the Zoological Survey of India, Kolkata under the First Five Year Plan. This Marine Survey Unit was transferred from Zoological Survey of India Head Quarters, Calcutta to the Southern Regional Station at Chennai as Marine Biological Division, which blossomed in to a full-fledged Marine Biology Regional Centre on March 1, 1973 with the mandate to study the entire Marine Biodiversity of our country all along the mainland and Andaman & Nicobar and Lakshadweep groups of Islands. Currently there are 31 Marine Protected Areas in the country including three Biosphere Reserves namely, Great Nicobar, Gulf of Mannar and Sunderbans, where the Marine Biology Regional Centre in particular and Zoological Survey of India as a whole contributed in terms of faunal inventorization, status surveys and addressing specific issues out of resource use conflicts, to name a few.



Major Research projects completed

- Inshore fauna of Madras Coast
- Marine Fouling of Madras Coast
- Marine Pollution of Madras Coast
- Fauna of India - Cirripedia
- Colourful seashore animals of Andaman & Nicobar Islands
- Studies on the distribution of benthos on Madras Coast
- Taxonomy and life history and bio-ecology of Hemichordata and Protochordata
- Studies on Cephalopoda of the Madras Coast
- Studies on Bivalves of Madras coast
- Studies on Anthozoans of Madras coast
- Studies on biofouling in the seawater cooling system of thermal plant, it causes and control
- Studies on Scyphomedusae of Madras Coast
- Studies on Fishes of Coromandel Coast
- Studies on Stomatopods of Tamil Nadu coast: Ecology and Taxonomy
- Coastal and Marine Ecosystem of East Coast of India
- Survey of Andaman & Nicobar Islands
- Studies on the inshore fauna of Madras coast
- Ecology and Biodiversity of Gulf of Mannar Biosphere
- Fauna of Chilka Lake
- Chaetognaths of Madras coast
- Ecology and Biodiversity of Palk Bay
- Coral reef degradation in Indian Ocean – Gulf of Mannar Biosphere Reserve
- Faunal survey of National Marine Park, Wandoor, Andaman & Nicobar Islands
- Enumerative survey and study of *Dugong dugon* in the Gulf of Mannar Biosphere Reserve area
- Marine Sponges of Andaman Islands
- Organochlorine pesticide concentration in marine environment of Andaman Islands
- Coral and Gorgonid fauna of Madras coast
- Coral fauna of Gulf of Katchchh
- Pictorial Hand book on Chaetognatha
- Studies on Benthic Brachyuran crabs of Madras coast
- Studies on Pelagic Crabs of East Coast of India
- Meio-fauna of Gulf of Mannar
- Studies on the intertidal fauna of East Coast of India
- Studies on Coastal Birds of Tamil Nadu
- Echinoderms of Gulf of Mannar

Major scientific contributions

The Centre has participated in several National and International scientific expeditions. Mention may be made on the participation in the multidisciplinary oceanographic expedition onboard the Naval Vessel 'DARSHAK' and the research vessels 'SAGAR KANYA' 'SAGAR SAMPADA' and 'GAVESHINI'. Notable contributions have also been made by the scientists of the Centre by recommending remedial measures to tackle the problem of marine fouling organisms impeding the flow of sea water in the cooling system in the Thermal Power stations and Nuclear power plants. The occurrence of Lingula, White Sucker fish, Cochin-banded Sea Snake, African Spade Fish, Conch Shell were recorded in the East Coast of India for the first time.

Available taxonomic Expertise

Taxonomic expertise on Birds, Echinoderms, Corals, Meio-fauna, Protozoa and Water Chemistry are available currently at the Centre.

National Zoological Collections (NZC)

The NZCs maintained at the Centre contain 1,12,798 examples including Planktons, vertebrates and Invertebrates.

Modern Infrastructure and Research facilities

The Centre is equipped with PS7000C MKII Book Scanner and Eclipse 50i Nikon Microscope (Provided with diascopic and episcopic illumination).

Publications

Eleven books / monographs and 515 research papers have been published in various national / International journals by the scientists of the Centre.

- Bibliography and checklist of corals and coral reef associated organisms of India
- Studies on faunal diversity and Coral Reef Ecosystems of Palk Bay
- Coastal Birds of Tamil Nadu
- Brachyuran Crabs from the collections of Marine Biological centre, Chennai
- Handbook on Sharks of Indian Waters (Diversity, Fishery Status, Trade & Conservation)
- Marine Turtles of India
- Hard Corals of India
- National symposium on conservation and valuation of marine biodiversity
- Faunal Diversity of Gulf of Mannar Biosphere Reserve
- Fauna of Chennai Coast.

Library

The library of the Centre has acquired 1506 books and 33 journals / periodicals are currently under subscription.

Marine aquarium

The Centre is equipped with a Marine Aquarium with the purpose to create conservation awareness among the general public and school children. There are 18 eight feet long rectangular display tanks with front side viewing glass and a

central tubular tank. Each tank has been provided with under gravel filter system, interior decoration replicating different marine habitats, proper lighting and systems for circulation, aeration and filtration of contained seawater. The visitors are provided with information on the animals maintained in the aquarium. The aquarium is open on all working days and is visited everyday by a large number of school children and general public. It has emerged as a point of attraction in Chennai.

Marine museum

Considering the importance of marine biodiversity and creating awareness about marine organisms to the researchers, students and general public a Museum was opened to public on 13 February 2012. Out of 36 phyla present in India, 25 phyla are exhibited in the museum.

Other Extension activities

Identification and advisory services are offered to students, researchers and scientists of other institutes. The facilities are also availed by the Tamil Nadu & Karnataka Forest Departments, Wildlife Regional office & Police Department, New Delhi, for identification of confiscated specimens of sea shells.

Talks/lectures/Internship programmes on various subjects related to marine faunal diversity and conservation are delivered on request to the students as well as school/college teachers.

The Marine Biology Regional Centre participates regularly in the Chennai Science Festival organized by the Science City to create awareness among the school children and general public especially around Chennai.

Marine Biology Regional Centre
Zoological Survey of India,
Chennai- 600028, Tamil Nadu
Telefax: 044-24642680, e-mail:mbs-zsi@hotmail.com

For more details visit http://www.zsi.gov.in

Published by the Director, Zoological Survey of India, Prani Vigyan Bhawan, M-Block, New Alipore, Kolkata-700 053. Phone : +91-33-2400 6893 / 2498 6820