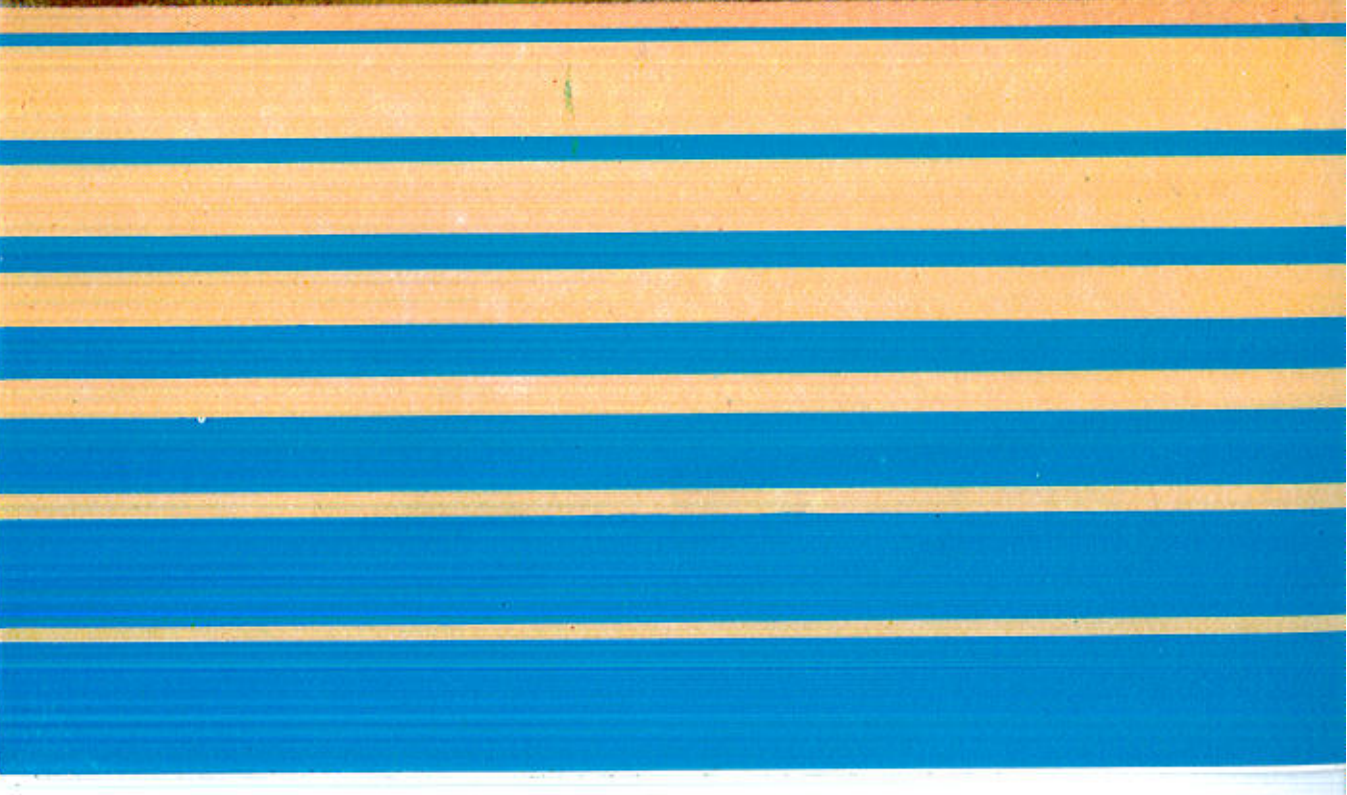




# CENTRAL MARINE FISHERIES RESEARCH INSTITUTE

INDIAN COUNCIL OF AGRICULTURAL RESEARCH

ERNAKULAM, COCHIN



# CENTRAL MARINE FISHERIES RESEARCH INSTITUTE

## Campuses

Established in 1947, the Institute has its headquarters at Cochin, Regional Centre at Mandapam Camp and Research Centres at Veraval, Bombay, Karwar, Mangalore, Calicut, Vizhinjam, Tuticorin, Madras, Kakinada, Waltair and Minicoy (Lakshadweep). Additionally, fishery resources information is collected from 28 Field Centres located along the east and west coasts.



Prawn hatchery at Narakkal



Molluscan hatchery at Tuticorin

## Objectives

- \* Conduct research for assessing and monitoring the exploited marine fisheries resources leading to rational exploitation and conservation;

- \* Assess the underexploited and unexploited marine fisheries resources of the Exclusive Economic Zone;

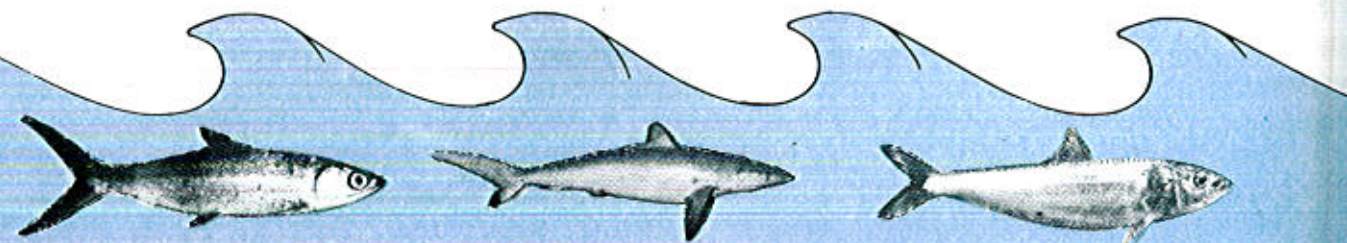
- \* Understand the fluctuations in abundance of marine fisheries resources in relation to changes in the environment by conducting vessel-based programmes;

- \* Develop suitable mariculture technologies for finfish and shellfish in open sea to supplement marine fish production; and

- \* Conduct transfer of technology and post-graduate and specialised short-term training programmes.

## Research framework

National and regional research programmes are carried out under 8 Research Divisions, with their scientific and technical personnel spread out at the Headquarters, Regional Centre and Research Centres. Inter-divisional programmes within





A bumper catch of carangids

The Divisions implement approved Research Projects which are periodically reviewed for completion, continuation and updating, and introduction of new projects having specific missions and time targets.

The Library and Documentation Division is a service division.

### Capture fisheries

In marine capture fisheries, the Institute's direct interests

the Institute and inter-institutional programmes with collaborating agencies are carried out for greater utilisation of expertise and facilities.

The Research Divisions are:

**Fishery Resources Assessment Division**

**Pelagic Fisheries Division**

**Demersal Fisheries Division**

**Crustacean Fisheries Division**

**Molluscan Fisheries Division**

**Fishery Environment and Management Division**

**Physiology, Nutrition and Pathology Division**

**Fisheries Economics and Extension Division**



Cultured Indian white prawns

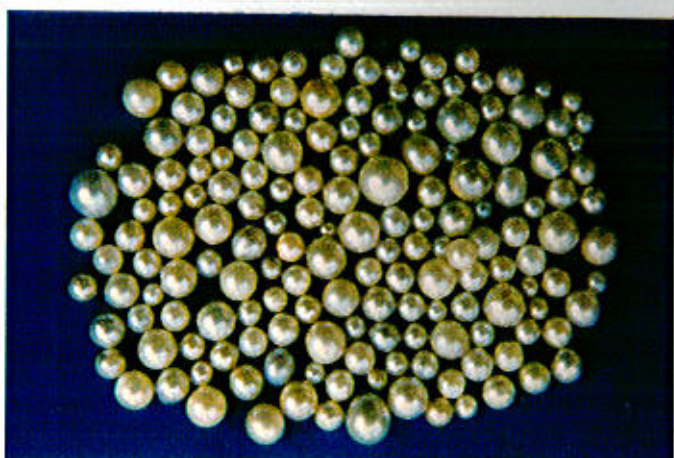
are on trend monitoring and stock assessment of exploited fishery resources, and survey and assessment of under-exploited, unexploited and new resources in the EEZ of the country. As a corollary to these efforts, marine fish production estimates are made on a multi-stage stratified random sampling basis for the different maritime States and Union Territories and the



National Marine Living Resources Data Centre handles this information. Fisheries oceanography and environment management programmes link the resource information with environment for better understanding of the interaction at various phases of life of fish. Fisheries forecasting is attempted based on all relevant data. Mapping of fishing grounds is facilitated with resources data and ground conditions. The Institute is also engaged in frontier areas of research such as remote sensing in fisheries.

### Mariculture

The Institute is concerned with development of technologies for open sea mariculture of candidate species and field testing of these technologies in farmer's

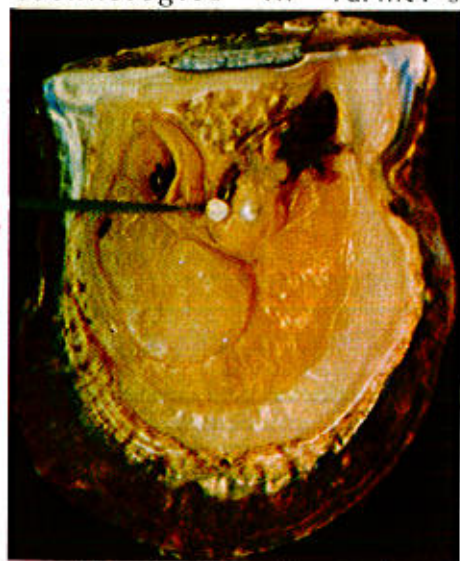


A collection of cultured pearls

fields and under pilot projects. Seed production (hatcheries) techniques form an important component of mariculture research, leading to sea-ranching and/or farming. Multidisciplinary researches on physiology, genetics, reproduction, nutrition and pathology are directed towards enlargement of the frontiers of knowledge, improvement of quality and better management of production.

### Education

Post-graduate education/research in mariculture leading to M.Sc. and Ph.D. degrees, commenced under the UNDP/FAO/ICAR project of Centre of Advanced Studies in Mariculture is continued as a regular programme of the Institute, with the collaboration of the Cochin University of Science and Technology which awards degrees.

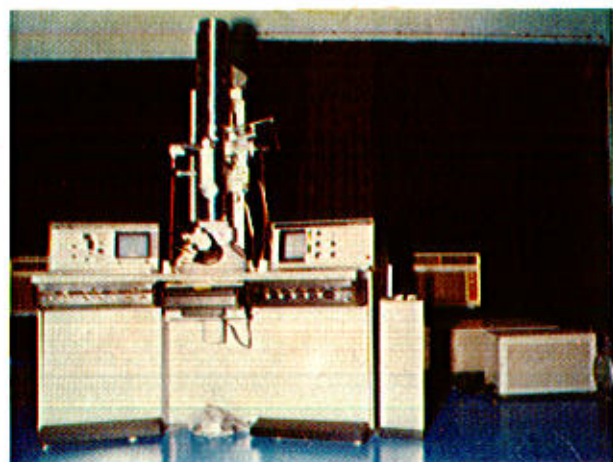


A pearl oyster with a pearl



## Transfer of technology

Fishery resource information for planning, development, management and conservation is provided to all end-users on a regular basis. Transfer of technology is effected through various channels such as consultancy, training programmes, summer institutes, Lab-to-Land programmes, Trainers' Training Centre and Krishi Vigyan Kendra (Farm Science Centre).



Transmission cum Scanning Electron Microscope

## Management and Administration

The Director of the Institute is overall in charge of research management and administration. The Heads of Divisions manage the research and technology transfer programmes in their respective Divisions. The Director is assisted ministerially by Administrative and Accounts officers and sections of administration, establishment, budget & coordination and stores.

## Scientists & other staff

As at the end of VI Five-Year Plan, the sanctioned staff strength of the Institute includes 238 Scientists, 457 Technical Staff, 176

Ministerial Staff, 291 Supporting Staff, 16 Auxillary Staff, totalling to 1178.

## Research facilities

### Laboratories

The Headquarters at Cochin is located in the permanent laboratory-cum-administration building from February 1986. Divisional laboratories are well-equipped for handling problems of capture fisheries and mariculture with appropriate instruments and other equipments. A combination transmission/scanning electron microscope forms a common facility. Computer facility is being added. A Remote Sensing Cell for fisheries is being established.

Regional Centre at Mandapam Camp has a large campus with permanent laboratories. All Research Centres have required facilities for fisheries work.

### Research Vessels

R V Skipjack is equipped for fishing and oceanographic work. Based at Cochin and operates in the EEZ. **Basic data:** Length OAL 32.6 m; main engine 705 BHP. **Facilities:** bottom and midwater trawling, purse-seining; oceanographic work.

FORV Sagar Sampada is a Fishery and Oceanographic Research Vessel owned by the Department of Ocean Development, Government of India. Scientific programmes are managed by CMFRI as nodal agency. It is a national facility for Fisheries Institutes of the Indian Council of Agricultural Research



FORV *Sagar Sampada*

and other national laboratories and Universities. **Sagar Sampada** is a modern research vessel with sophisticated facilities for fishery, oceanographic and meteorological research. **Basic data:** length OAL 71.5 m; main engine 2285 BHP at 775 rpm; GRT 2661 t; cruising range 18,000 n miles. **Facilities:** Fishing - trawling (bottom, mid-water, pelagic) and long-lining; oceanography - facilities for physical, chemical and biological oceanography; Acoustic Detection Room; Electronic Data Processing Room; Meteorological office; Wet and Dry Fish Laboratories and Aquarium.

**Cadalmin I-XII:** These are smaller research boats of 13.4 m OAL for inshore fishery work.

#### *Mariculture farms and hatcheries*

Prawn hatchery laboratory at Narakkal, Cochin; Shell fish hatchery at Tuticorin; Fish culture farm at Tuticorin; Lagoon farm at Mandapam Camp; Shellfish breeding laboratory at Kovalam near Madras; Open sea raft culture at Tuticorin, Calicut, Vizhinjam; and Pen and cage culture at Mandapam Camp.



RV *Skipjack*