

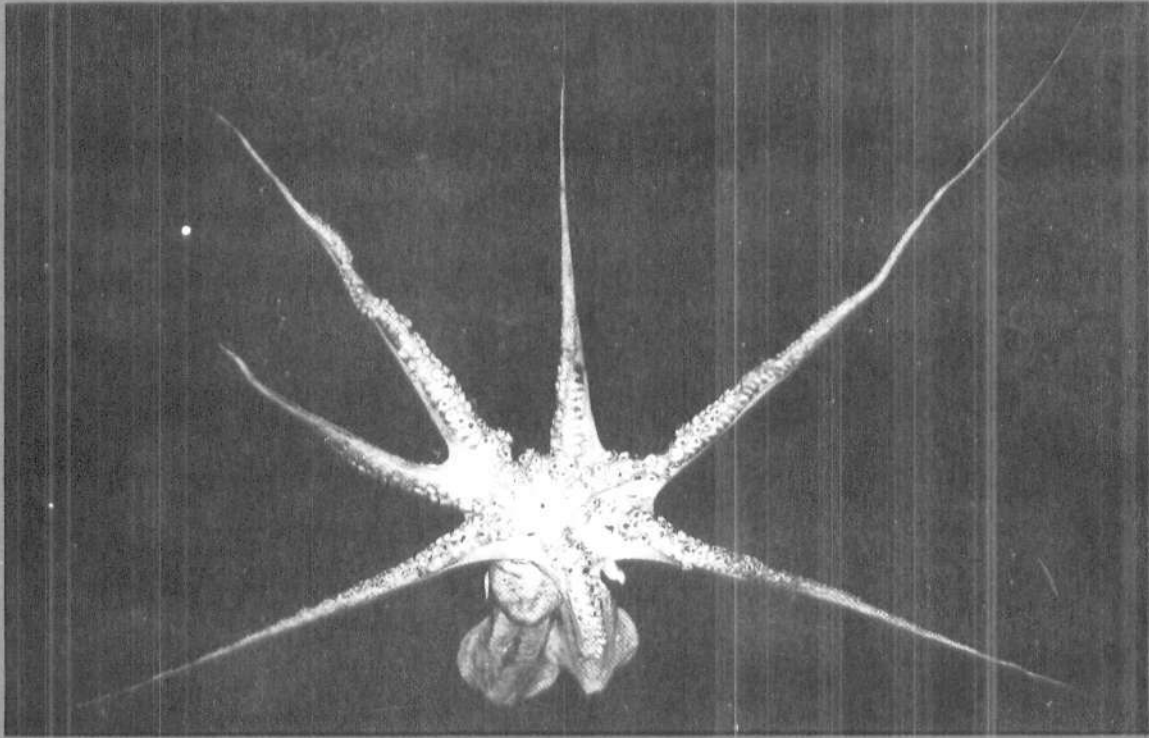


# समुद्री मात्स्यकी सूचना सेवा MARINE FISHERIES INFORMATION SERVICE



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भारतीय कृषि अनुसंधान परिषद  
INDIAN COUNCIL OF AGRICULTURAL RESEARCH

## 874 THE MARINE AQUARIUM OF CMFRI AT VIZHINJAM IN TRIVANDRUM, KERALA

The CMFRI has established one marine aquarium at one of its Research Centres at Vizhinjam. It is situated about 15 km south of Trivandrum and about 2 km from Kovalam International Tou-



Fig. 1. Sea anemone

rist Centre. The aquarium has displayed the hidden coral paradise by recreating the habitat in its natural form. Enchanting beauty of the fascinating, ever-changing and colourful world of corals and coral reefs which is inhabited by the world's most colourful invertebrates and fish species is exhibited at the aquarium. The animal diversity ranges from colourful sponges, a variety of curious animals to fishes and turtles. The varieties of sponges, corals, sea anemones, sea-fans, marine worms, sea snails, oysters, clams, mussels, shrimps, prawns, lobsters, crabs, starfi-



Fig. 2. Flower fish

shes, sea cucumbers and seaurchins expose the wonders of the coral reef habitat to the visitors.

### The exhibits

The *doctor shrimp* is a beautifully-coloured shrimp which removes ectoparasites and dirt from the corals and maintains the health of the coral colonies. The lower forms of animal life *sponges*, *sea anemones* and *seafans* are exciting to watch. The *starfishes* are not fishes, but they belong to the group of echnioderms. The ornamentations of the different species of starfishes and their slow movements with the help of hundreds of tiny pegs called tube feet are rare sights. The *seacucumbers* and *seaurchins* are

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Fig. 3. Rabbit fish

also echinoderms.

Different species of **bivalves** and **snails** with curious shells are abundant in the habitat. The **giant clam** is peculiar to the coral reef environment. Commercially important crustaceans such as **prawns**, **lobsters** and **crabs** are very interesting to watch in the aquarium. Their colour patterns, ornamentations and peculiarities of movements are fascinating.

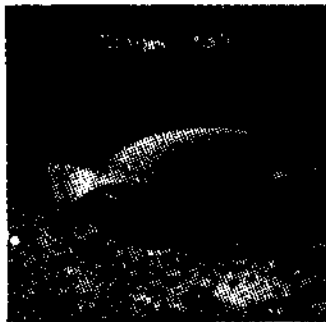


Fig. 4. Surgeon fish

The world of marine ornamental fishes exhibited at the aquarium provides the visitors an opportunity to see the most diverse forms, colo-



Fig. 5. Wrass

urs and habits. Watching them in the aquarium relieves us of the tensions of daily life.

One of the most fascinating among all tropical marine aquarium fishes is the **anemone fish** or **clown fish** that lives in association with sea-anemones. The clown assists in feeding the host anemone by storing their excess food among its tentacles, thus ensuring a steady supply of food. The clown has acquired natural protection from paralyzing filaments of the anemone with a mucous layer that covers the body of the fish. The **surgeon fish** owes its name to the sharp, knife like spine on each side near the tail. In most species the spines are folded into a groove normally, but they are lifted when the fish is disturbed or excited, and used as weapons for inflicting slash wounds on the victims. The **parrotfishes** have heavy parrot like beak which is formed of fused teeth. The sharp and powerful beak is used for crushing the hard outer skeletons of

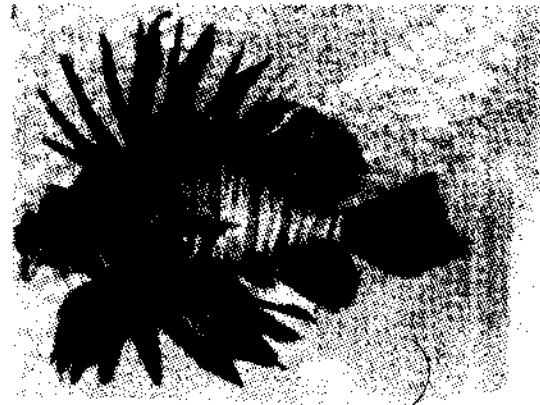


Fig. 6. Lion fish



Fig. 7. Sea-cucumber

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the reef-forming corals to get at the soft animals inside. **Squirrel fishes** are attractive with red-coloured body, white stripes and yellow fins.



Fig. 8. Squirrel fish

The **triggerfishes** are brightly coloured and they can lodge themselves immovably by erecting the first dorsal spine and locking it in place. The **boxfish** has a hard outer case that completely encloses the body. The **pufferfish** has the ability to inflate its body by quickly gulping in water and



Fig. 9. Grouper

then turning upside down so that it floats on the surface. It can expel the water rapidly to return to the normal size and position. This sudden bloating is sufficient to dispel the enemy. The **porcupinefish** resembles puffers and it is also able to inflate its body. It has long, sharp spines over the body which can inflict wounds.

The **butterfly fishes** are so called because of their active flitting movements and bright colours. **Angelfishes** which are equally charming are larger and swim more slowly with exceptional grace. The **lionfish** is the wild beauty of the aquarium. All the spines in the first dorsal fin are stout and sharp, the first few of which are hollow, serving as hypodermic needles that inject poison into the stab wounds. The **sea-horse** is a

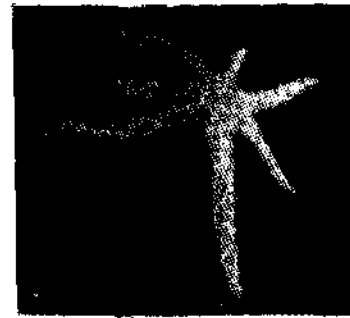


Fig. 10. Starfish

peculiar fish that is completely different from the typical fish shape. The head is bent down, joining the body almost at right angles, swims in an upright position, stiffly but gracefully. Its long prehensile tail is used for holding onto sea weed or

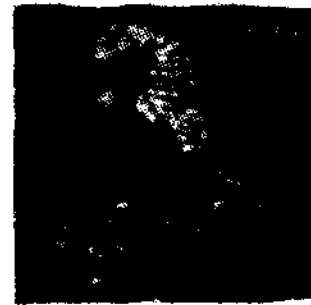


Fig. 11. Sea-horse

other objects. The female lays her eggs in a pouch on the male. The young ones emerge as miniature adults from the pouch. The **moorish idol** is one of the most spectacular reef fishes. The snout is projected and tube-like. Both the dorsal and anal fins are long and swept back.

The world of coral reef habitat which is the abode of hundreds of species of colourful ornamental fishes and other organisms is a delicate and dynamic ecosystem which needs to be conserved. The indiscriminate exploitation of these ornamental fishes from the habitat will damage the ecosystem and the coral paradise will become a graveyard of these fishes. The entrepreneur venturing into ornamental aquarium fish trade needs scientific training for the judicious exploitation of these fishes, for maintaining them in tanks with proper feeding and for installation of efficient filter systems to sustain the water quality.

In addition to the marine ornamental fishes,

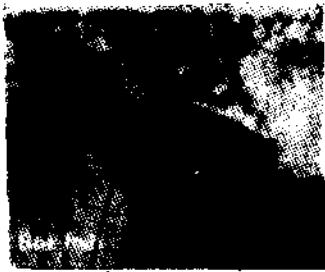


Fig. 12. Box fish

the aquarium displays a few fresh water fishes like the famous **piranha**, **crocodile sucker cat**, **firemouth**, **spiny eel**, **oscar** and **kol carp**, apart from brackish water fishes such as **pearl spot** and **tilapia**.



Fig. 13. Doctor shrimp

The aquarium provides an unique opportunity for students and tourists to study and enjoy the underwater life of the coral seas.