three species of seahorse are available in the Palk Bay coast compared to the earlier observations of one species, the *Hippocampus kuda* complex. The species availability and the growth rate of seahorse in the Palk Bay coast are to be investigated using genetic (DNA profile) marker studies and tagging experiments. These aspects will be completed under the scientific programmes of the sponsored project funded by the Ministry of Environment and Forests, Government of India.

Reported by: A.P. Lipton and M. Thangaraj, Vizhinjam Research Centre of CMFRI, Vizhinjam

### Variations in biomass of the brown mussel *Perna indica* in recently settled areas along the southwest coast of India

Settlement of mussels on rocks in the coastal waters is an important event for mussel fishermen as well as farmers, since this determines the recruitment, species survival and availability of young ones (seeds) for mariculture. Considering the growing interest for mussel culture in Kerala, it has become a necessity to monitor and ascertain its seed availability.

In order to study the relative abundance of mussel young ones, the intertidal and submerged rocks along the southwest coast of India between Kanyakumari (Tamilnadu) and Pozhikkara near Paravoor (Quilon District, Kerala) were surveyed during November-December 2000, after the north-east monsoon. The distribution and details of the area where mussel seeds occurred on submerged rocks were obtained from local divers involved in mussel fishery. Samples of mussels were collected at random from settled areas of different seed beds by scraping small portions of settlement from the rock surface as sheets. The periphery of these sheets were trimmed in such a way that each sample sheet has a rectangular, square or circular shape. This enable easy calculation of the area of the samples. The weight and length of mussels from the samples were recorded and were used for estimating the same (average of pooled data) for an area of 1 m².

On the west coast of Tamilnadu, the brown mussel *Perna indica* was noticed off Kovalam near Kanyakumari, Muttom, Kadiapatanam, Colachel-Kodimuna, Vaniakudi-Kurumpana and Melemidalam-Enayam, while on the south Kerala coast, they were found off Pulinkudi, Mulloor, Vizhinjam, Avaduthura-Kovalam, Valiathura, Thazhe-Vettoor and Odayam near Varkala. Among these, Kadiapatanam, Colachel, Enayam, Pulinkudi, Mulloor and Vizhinjam were the major centres of mussel fishery. Mussels were distributed mainly on submerged rocky areas and less in the intertidal region at all centres. Those found in the latter region were comparatively smaller in size. The length-wise distri-

<table>
<thead>
<tr>
<th>Length-interval (cm)</th>
<th>Kovalam</th>
<th>Muttom</th>
<th>Kadiapatanam</th>
<th>Colachel-Kodimuna</th>
<th>Veranikupam-Vanakkulam</th>
<th>Pulinkudi</th>
<th>Mulloor</th>
<th>Vizhinjam</th>
<th>Avaduthura-Kovalam</th>
<th>Valiathura</th>
<th>Thazhe-Vettoor</th>
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<td>0.07</td>
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<td>0.62</td>
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Table. Length-wise distribution of biomass per m² (in kg) of *Perna indica* at different centres
bution of biomass per sq. meter (in kg) is presented in Table. Exploitation of the resource, environmental factors and time of settlement are important factors determining the abundance and size distribution. The Table provides information on the comparative availability of suitable sized seeds at different centres and is useful to mussel farmers for making appropriate decisions.

Reported by: N. Ramachandran, Joseph Andrews and K.T. Thomas, Vizhinjam Research Centre of CMFRI, Vizhinjam

Exploitation of windowpane oyster - Placuna placenta (Linnaeus) at Vellapatti area near Tuticorin

Exploitation of molluscs, producing marine pearl was done for the collection of natural / cultured pearls only, whereas, the exploitation of windowpane oyster was mostly for their shells. The pearls obtained from windowpane oyster, Placuna placenta were mostly ivory or white in colour and small in size. The translucent shells are commercially and economically important in shell craft industry. Hence they are exploited in large quantities from the east and west coast of India.

Large population of windowpane oyster was seen in silty-clay bottom of Nauxim Bay of the Zuari estuary of Goa. A major resource of this species exists in the Gulf of Kutch in Gujarat. In the east coast they occur in high density in Kakinada Bay, whereas it is a minor resource in Tuticorin Bay and adjacent areas.

Although a fishery exists for windowpane oysters at Tuticorin Bay, it was mainly for extraction of natural pearls, while the shells were often discarded on the shore. Viewing the economic value of these shells, the merchants engaged fishermen for the collection of live windowpane oyster in areas other than the Tuticorin Bay. Recently they have located a new site in the river area near Vellapatti, a coastal village 3 km away from the Tuticorin Bay where a dense population of windowpane oyster exists. The exploitation of windowpane oyster at Vellapatti is mainly for shells of different size groups.

Intensive collections were made during off-fishing season when the boats were laid ashore due to poor fish catch. The windowpane oysters occurred at 3 fathoms depth. During 2000, 150 tons of windowpane oysters were exploited. Exploitation was done by skin diving. The live windowpane oysters were sun-dried on the seashore (Fig. 1). No flesh or pearl was extracted. About 150 boats were engaged in the exploitation in 2001. A total of 60 tons were reported to have been fished during 2001. The sun-dried shells were packed in polyethylene bags and transported to Bombay via Bangalore for sale.

As the shell chips had shining property, the first quality product was used in cosmetic industry for preparation of face make-up. The residual shell chip was mixed with paints to increase its viscosity. The shell crush remains were utilized for poultry feed and lime preparation. The live windowpane oysters were purchased at the rate of Rs. 1.90/kg from fishers and sold Rs. 2.00/kg to traders. The size of oysters ranged from 80 to 160 mm in dorso-ventral axis (DVM) with a dominant mode at 111-120 mm which constituted 28%. The other dominant modes were at 101-110 and 121-130 mm in February 2000.

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