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## **FISHERY FOR THE MARINE CLAM, *SUNETTA SCRIPTA* AT VYPIN ISLAND COCHIN \***

*Sunetta scripta*, the marine clam, locally known as "Kadal kakka" supports a well established commercial fishery in Vypin Island. The clam is pale yellow in colour with dark brown arrow shaped markings. The shell is smooth, glossy and thick and forms the raw material for the flourishing lime based industries. Meat is

consumed by a small section of the local community. Recently the fresh meat of the clam is gaining importance as feed for broodstock in the prawn hatcheries.

Extensive beds of this clam occur in the subtidal region off Fort Cochin on either side of

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the Cochin bar mouth. In the Azhikode bar mouth this clam occurs with *Meretrix casta* and *Paphia malabarica*.

### The Marine clam fishery at Murukkumpadam

**Fishing method :** At Murukkumpadam in Vypin Island about fifty four fishermen are engaged in regular fishing of this clam. Fishing is done during low tide for the first eight days after the new moon or full moon phase. Dugout canoe of 2.25 t capacity is used by the fishermen. A 3 to 3.5 m long wooden crowbar called "thoomba" attached with nylon net bag on a spike rod is dragged on the clam beds at a depth of 2.5 to 3 m. The clams collected in the net are emptied into the canoe. In each canoe about 400-500 kg of clam shells are collected every day. The shells are brought to Murukkumpadam and sold to "Clam Fishermen Industrial Co-operative Society".

**Annual Production :** During the period from 1986 to 1990 a total of 14,207.4 t of the clam shell was landed at Murukkumpadam. The fishery showed a declining trend during this five year period. In 1986 the annual landing was 3691.4 t which declined gradually in the succeeding years and in 1990 only 2,133.81 t of clam was landed showing a reduction of 43% in the annual landings (Fig. 1). On the other hand the number of fishermen engaged in clam fishing increased from an average of 35 in 1986 and 1987, to 43

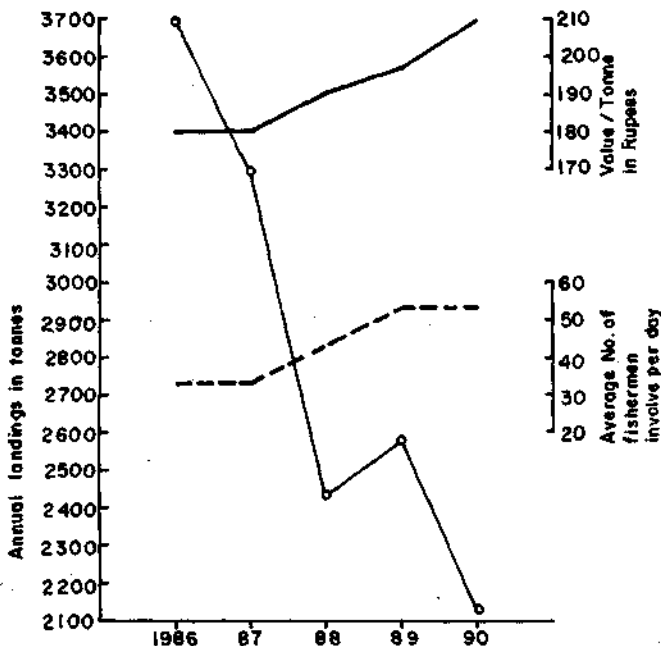


Fig. 1. Fishery details of the *S. scripta* landings at Murukkumpadam during the period from 1986 to 1990.

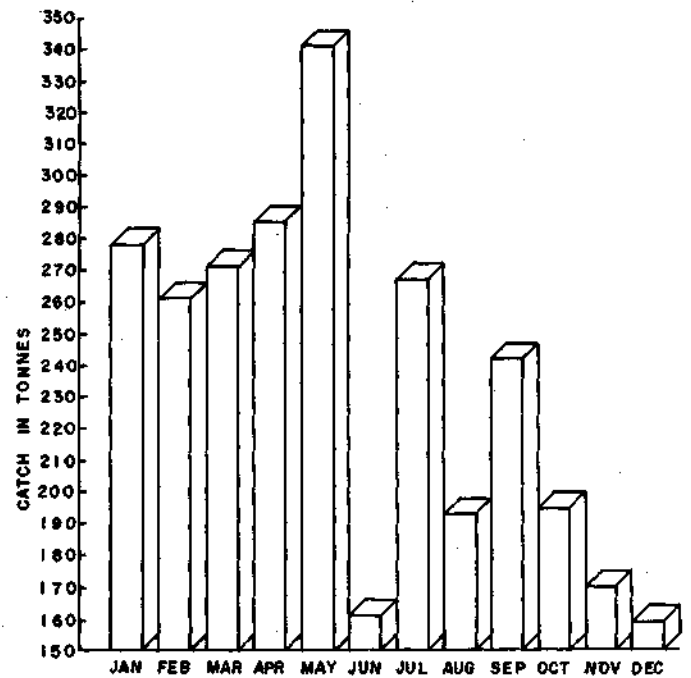


Fig. 2. Monthly average landings of *S. scripta* at Murukkumpadam during the period from 1986-1990.

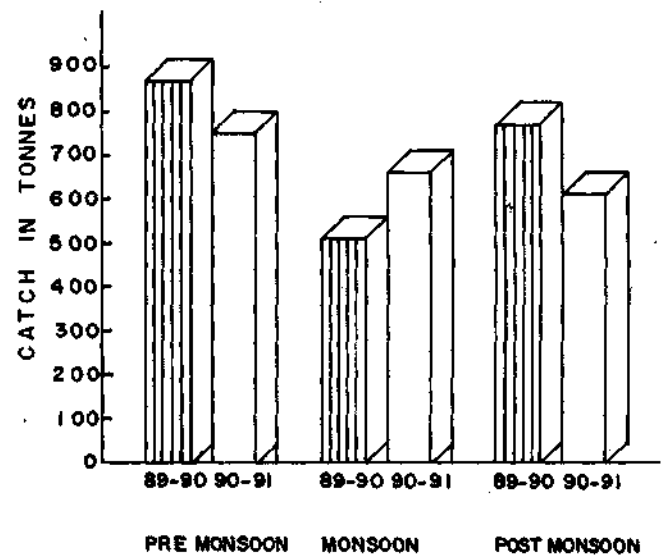


Fig. 3. Seasonwise landings of *S. scripta* at Murukkumpadam.

in 1988 and 54 in 1989 and 1990. Simultaneously the average value per tonne has increased from Rs. 180/- in 1986 to Rs. 209 in 1990. Clam fishermen attribute the cause for the decline in fishery to the non-availability of shells excavated from the channel area. Previously the mud dredged from the channel area was emptied into the inshore waters. This gave the fishermen

access to the population of *S. scripta* from deeper areas. Recently the earth dredged to deepen the channel is emptied about 10-12 km off Fort Cochin, which is inaccessible for the clam fishers.

**Monthly and seasonal variation:** *S. Scripta* is harvested throughout the year but fluctuations are observed in monthly landing. During the period from 1986 to 1990, maximum monthly average of 341.2 t was observed in May followed by 284.9 t in April (Fig. 2). The minimum monthly average clam landing was 159.1 t in December followed by 160.9 t in June.

The clam fishery also showed seasonal variation. Maximum landings of 869.4 t and 753.6 t representing 40.4% and 37.7% of the annual landings of the period 1989-'90 and 1990-'91 was during the premonsoon period (February-May). In 1989-'90 the minimum landing, 509.6 t was in monsoon whereas in 1990-'91 the minimum landing amounting to 612.6 t was during the postmonsoon period. Clams of size 8 to 46 mm contributed to the fishery. Apart from *S. scripta*, shells of *Meretrix* sp. were also observed in the landing.

**Disposal and utilisation:** The clams fished from the subtidal area off Fort Cochin are landed at Murukkumpadam. The Clam Fishermen Industrial Co-operative Society buys the clam from the fishermen and sells it to lime manufacturing companies. The profit is utilized for the welfare activities of the society. The society was established in 1976 and is under the administration of the Khadi Board. There are about 112 members in the society but only 54 fishermen are actively engaged in clam fishing. Previously financial aid was given to the fishermen to purchase canoe, anchor and the fishing gear. Most of the members have repaid the loan and now own the fishing craft and the gear without any liability. The society also helps the clam fishermen by way of providing festival allowances, welfare fund, educational fund, insurance etc. The Society disposes the shell after burning, to lime manufacturers, fertilizer companies, poultry feed manufacturers and other small scale industries. Small quantity of the meat is presently used in prawn hatcheries as feed for prawn broodstock. Apart from this the clam meat is not utilized for gastronomic purpose.

#### **The marine clam fishery at Munambam**

Munambam situated in the northern end of Vypin Island supports a good fishery for *Sursetta*

*scripta*. Clam beds occur in the subtidal area upto 1.5 m depth in a 2 km stretch of coastal area. Men, women and children in the coastal area handpick the clams during low tide. A hand scoopnet is also used at times to harvest the clams. Fishing is done for five to six hours. The shells are accumulated on the beach itself and sold to lime manufacturers at the rate of Rs. 4 per 15 kg. The meat is consumed by local fishermen.

Mixed populations of the *S. scripta* with *Meretrix* sp. and *P. malabarica* occur in the Azhikode bar mouth. This is harvested by a hand dredge from a canoe during low tide by fishermen. One or two fishermen drag the net along the clam bed and collect the shells. The peak fishing season is during January-May i.e. the premonsoon period. During monsoon the fishing is at low key, sometimes coming to a standstill.

In the absence of a clam fishermen cooperative society the catch is disposed off by the fishermen themselves or through agents. However, there is no regular practice of separating the meat and selling it in the local market.

#### **Recommendations**

The present study has brought to light that considerable quantity of clam shells is fished every year. However, the meat of the clam, when present is sparingly utilised. The demand for the meat is low as it is not conventionally eaten. Moreover, in Vypin Island, the numerous prawn peeling sheds provide job opportunities for fisherwomen which bring them better returns than selling clam meat. Based on the present study the following suggestions are made to develop the fishery.

Extension work should be carried out to create awareness among the people about the nutritive value and palatability of the clam meat. Concurrently, steps must be taken to utilise the clam meat as supplementary feed in prawn culture farms. Effort may be made to explore the possibility of export of *Sursetta* meat. More clam fishermen welfare societies should be started in the northern end of the Island which will provide financial assistance to the fishermen and assist in the disposal of their catch.

We acknowledge the co-operation given by Shri. K.G. Lakshmanan, Secretary of Clam Fishermen Welfare Co-operative Society for providing the fishery information.