

KAKINADA BAY FISHERIES - NOSTALGIC MEMORIES

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Introduction

The Kakinada Bay (82° 15' E to 82° 22' E and 16° 5' 1' N to 16° 59' N) has a water spread of 146 km². Several irrigation canals and small rivers originating from the Gouthami branch of the Godavari River open into the Bay. There are extensive mangrove forests bordering the southern side of the Bay. The major part of the Bay is characterised by soft muddy substratum. A highly productive and dynamic ecosystem in the Bay supports rich and varied finfish and shellfish populations. Their exploitation provides livelihood to thousands of people in the vicinity of the Bay. The fisheries of the Bay have some special characteristics rarely found elsewhere. The Kakinada Bay and the adjoining Godavari estuary is a major nursery ground for several species of finfishes, penaeid shrimp and crabs. Specialised craft and gear, suitable for fishing in the Bay and estuaries are in vogue.

Special Features of the Resources

The landings by trawlers of Kakinada show that shrimps account for 25-30% of the catch, which is very high when compared to those in other areas. This may be due to the extensive nursery grounds in the Kakinada Bay and the adjoining Godavari estuarine system. Tiger shrimp seed collection for farming is widespread, in spite of its possible adverse impact on the recruitment to the stocks in the sea.

An organised fishery for the molluscs, mostly bivalves is a special feature of the Bay. Very large sized specimens of bivalves have been collected from the Bay. For example *Meretrix meretrix* measuring 84 mm, *Paphia malabarica* 86 mm, *Anadara granosa* 85 mm and *Perna viridis* 240 mm. The Kakinada Bay has a unique fishery for the blood clam, *Anadara granosa*. In the past the windowpane oyster *Placenta placenta* was a major component in the molluscan fisheries of the Bay. In recent times its production has come down.

Nostalgic Memories

In 1978 work was initiated to culture the blood clam *Anadara granosa* in the Bay. A 100 m² area was selected, an elderly clam fisherman from the village was entrusted with the watch and ward. Wide publicity was given in the village to create awareness. In the evening, the site was fenced with dry palmyra leaves (to serve as pen enclosure). Nylon netting was not preferred due to possible poaching. In the night, a large number of villagers gathered at the house of our watchman and took him to task for erecting the fence. Next day morning, the scene was reenacted at the Kakinada Research Centre. They were very vocal and contended that during the tides, when the waves hit the palmyra leaf fence the sound generated would drive away the fishes from the Kakinada Bay and they

would be deprived of their livelihood! Immediately the fence was removed and the experiments were carried out by erecting split bamboo screen fence. Then onwards there was excellent cooperation from the fishermen. By 1981, the clam farm was extended to cover 0.5 ha area and the technology of blood clam farming was successfully developed.

A seafood exporter from Kerala showed interest in exporting live blood clams from Kakinada to Tokyo. He was familiar with the Japanese market. In 1983, I arranged procurement of about 100 kg live blood clams. The scientists of the Research Centre of Central Institute of Fisheries Technology, Kakinada (which subsequently shifted to Visakhapatnam) helped in the depuration of the blood clams. Live blood clams were transported overnight to Chennai and from there these were airlifted to Tokyo. In those days due to absence of direct flights, the consignment was transshipped at Bangkok into the connecting flight to Tokyo after a lapse of about 10 hours. Being a perishable commodity, personal supervision was necessary at Bangkok to ensure its loading in the connecting flight. The exporter gave a report that live blood clams from Kakinada reached the Tokyo market in very good condition. However, his profit margin was low since he had to incur additional expenditure at Bangkok to ensure that the consignment would not miss the connecting flight.

Nowadays there has been much improvement in the flight schedules as well as sea surface transport. It is worthwhile to explore the foreign markets for the export of blood clams, either live or frozen. Development of the export

market would greatly improve the income of clam fishers of the Kakinada Bay. The Asthamudi Lake clam fishers in Kerala are immensely benefited by the export of frozen clam meat to Japan. I wish that the first consignment of the blood clams from the Kakinada Bay to Tokyo some 18 years back, should not be the last one!

During March-April 1983, a survey of the Kakinada Bay was conducted to study the distribution and abundance of the commercial molluscs, particularly the blood clam and windowpane oyster in relation to the ecology of the Bay. During the two months fieldwork, on several occasions, Madhyapakalu, a fishing village on the eastern boundary of the Bay, was made the base camp. The duration of the stay was three to eight days at a time. A fishermen hut was my dwelling. For drinking water, every day several 40-cm deep pits were dug on the beach and small quantities of slightly saline water were collected from each pit and filtered through nylon cloth before use. Sorting of the day's collection of samples used to be carried till midnight under light of a kerosene lamp. Every day, dozens of fisherfolk used to lineup in front of my dwelling with ailments such as headache, body ache, dysentery, cold, cough, fever etc. I used to distribute generously the medicines brought by me from Kakinada. To my pleasant surprise, the medicines worked wonders with them. On completion of the work, I was physically exhausted and anxious to return back to Kakinada. The villagers wanted us to visit the place as often as we can, and of course with the medicine kit! One fisherman went further and put a word that in the event of a health problem he would come to me at Kakinada!

In 1979, I read a brief abstract of a paper in a journal, that in Australia an attempt to culture the blood clam in cages suspended from a raft gave encouraging results. I have already set up a rack, opposite Vakalapudi village in the Kakinada Bay for mussel culture. I collected some blood clam seed from the Bay and the cages containing these seed were suspended from a raft. The experiment was a failure as there was considerable mortality and overall growth was poor. In the Kakinada Bay the blood clam *A. granosa* burrows up to 15 cm deep in soft muddy bottom. Obviously the disturbances caused in the suspended culture resulted in stress, taking its toll. In the true spirit of science, I made a mention of this study in the 'five yearly assessment forms' for merit promotion to the next higher grade.

During the interview, one of the committee members was not happy with this study and commented that such a study should not have been taken up. Then I passed on the abstract of the paper, which mentioned about the encouraging results in the off-bottom culture of the blood clam. Peace returned to the committee room and I successfully waded through a storm. Later I became concerned and got some details of the work carried in Australia after considerable effort. The work was carried out by a student for a very short duration on a blood clam species, which possess byssus, attaches to hard substrates and leads a sedentary life like our green mussel. This information not only gave me the much need relief but also saved the Kakinada Bay blood clams from further experiments.

