Jellyfish as an export commodity

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Recently, jellyfish blooms have been reported with increased frequency from several parts of the world and it has been suggested that this phenomenon might be related to over-fishing and other human activities that are driving marine ecosystems off balance. It has contributed to the formulation of the "fishing down the food chain" hypothesis, which is based on the assumption that the reduction in large species marine predator populations is promoting the growth of organisms from lower levels of the food chain. Rising sea temperature is also considered as a reason for the occurrence of jellyfish fishery.

Fishery & Processing

Unusual landings of jellyfish (*Crambionella* sp.) were recorded along the Kakinada coast of Andhra Pradesh during 2013, where it is locally called as

Muntha kaya / *Neeti kaya* (Telugu). Gill nets (*jogavala* / *naravala*) of the dimensions, length 107 m and width 20 m with mesh size 12 mm are used for catching of jellyfishes. Fishers travel about 3 km from shore for fishing at a depth of 10-30 m. March to July is the fishing season. Mechanised boats landed about 540 t of jellyfishes worth ₹ 50 lakhs while non mechanised boat landed about 1345 t of jellyfishes worth ₹ 98 lakhs at Kakinada Fisheries Harbour during 2013.

Processing is carried out within 8 hours of jelly fish being caught as otherwise it will be spoiled. After landing, the jellyfishes are washed and cleaned with sea water and soaked for upto 3 hours in salt water. For 100 kg of fish, 30 litres (l) of salt water (25 ppt) was added, this process is called as salt mixing. After this for 1 ton of jellyfish, 5 kg of alum was added. After soaking, jellyfishes were collected in separate plastic tubs and then pressed to remove the unwanted mucus and sand particles. This was followed by second cleaning (in salt and alum water) where it is kept soaked for 5-10 days before packing.

Soaking of jellyfish with salt and alum

Processing reduces liquefaction, odour, the growth of spoilage organisms and makes the jellyfish drier and more acidic, producing a crunchy and crispy texture. After processing jellyfish retains 7–10% of their original weight and the processed product contains approximately 6% protein. Freshly processed jellyfish has a white, creamy color and turns yellow or brown during prolonged storage. Plastic buckets are used for packing of jelly fishes. After completion of processing, jelly fishes are filled in 25 litre buckets and each bucket can be filled with 18 kg jellyfish and 7 l saltwater. Processed jellyfishes have good demand and are exported to countries like Vietnam, Japan, Thailand, China and Indonesia. One kilogram of jellyfish costs about ₹ 30 depending on the size grade. Raw material of unprocessed jelly fishes was sold for ₹ 700 to 800 per crate and was an alternate source of income to the fishermen during the fishing ban period.

Processed jellyfish ready for packing

Ready to transport jellyfishes packed in plastic buckets