

Unusual heavy landings of jellyfish *Crambionella stulhamani* (Chun) and processing methods at Pulicat landing centre, Chennai

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Introduction

Jellyfish exist in all oceans across the world. They exist from the surface of the water to the very depths of the ocean. Jellyfish are free-swimming planktonic carnivores. There are about 1000-1500 known species of jellyfish and new ones are being discovered everyday. This is surprising as jellyfish are amongst the oldest living creatures in the world and have been in existence before the dinosaurs.

Fishery

Unusual heavy landings of Jellyfish *Crambionella stulhamani* (Chun) at Pulicat landing centre near Chennai was recorded on 7th August 2009. Locally this type of jellyfish are called as “Muttai Chorri”. An estimated catch of 540 t of jellyfish tentacles were landed without head portion. Each animal having eight number of tentacles, the size

range of single tentacles was from 130 to 170 mm. For the first time, the tentacles of jelly fish were used for processing and for value added techniques. The jellyfish catch started from 10.8.09 to 27.8.09 and a heavy catch of 60 t was observed on 18.8.09. Fisherfolk of eleven fishing villages such as Arangamkuppam, Kottaikuppam, Vairavankuppam, Sathankuppam, Lighthousekuppam, Thirumalnagar-kuppam, Sempasapalallikuppam, Gunamkuppam, Andikuppam, Kavimanalkuppam and Nadukuppam were involved in this fishery.

The agent gave an advance of Rs.50,000 per boat for fishing the jellyfish. The Head of the village restricted the fishing of jellyfish to 15 gunny bags of jelly fish tentacles per boat, in order to benefit fishermen. Each boat engaged 5-6 fishermen, two persons to scoop the jelly fish and remaining persons to cut off the head portion and

dispose it. The jelly fish fishery occurred off Pulicat at distance of 5-6 km within a depth of 6-7 fathoms. The tentacles of jelly fish were brought in 15 gunny bags (Fig. 1 and 2), each bag containing 50-60 kg which was priced at Rs. 500/ per bag. In this process each boat got an income of Rs.7500 per day after operating for 5 to 6 h.



Fig. 1. Tentacles of jellyfish



Fig. 2. Loading bags with tentacles

Processing methods

Processing of jellyfish tentacles for export is well developed and carried out under hygienic conditions. Permanent cement tank with asbestos sheet shed is now used instead of thatched shed in fishing villages along the entire Tamil Nadu coast. Formerly the jelly fish head portion was only used for processing and export. But for the first time at Pulicat, the tentacles of jelly fish were used for preparing value added products. It involves four stages. In the first stage the tentacles were washed and cleaned

and the same were placed in the tank for 3-4 h. During the second stage, the tentacles were collected (Fig. 3) in perforated plastic tub and then pressed. The unwanted mucus and sand particles were removed from the tentacles by forcing filtered seawater (Fig. 4). During the third stage, the cleaned and fresh tentacles were transferred to cleaned,



Fig. 3. Transfer from storage tank



Fig. 4. Cleaning with filtered seawater

hygienic 1.5 t cement tank with the addition of 75 kg common salt and 50 kg Ammonium sulphate for 18- 24 h (Fig. 5). Salinity was maintained within 28-32 ppt. Occasionally lime powder is also added to maintain the pH level. In the final fourth stage, the sample was ready for packing (Fig. 6) with 3-5 kg air tight plastic container. The agents handled 500-1000 tubs of tentacles per day. Nearly 60-80 labourers were engaged for the processing work and an amount of Rs.300-400 per day/labour was paid. Utilising this method, five companies were involved



Fig. 5. Preservation with salt

in the processing and export of tentacles from Pulicat. The processed, jellyfish is packed in air tight plastic containers so that it does not get spoiled until



Fig. 6. Processed jellyfish ready to export

5-6 months. The foreign importer places the order only after ensuring the quality of processing methods in hygienic condition.