

On the Traditional Methods of Capturing Octopus

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Octopuses are marine benthic animals found to live in the waters along the sea coast down to 1000 m depth. They are known to have been exploited for more than 2000 years (Roper *et al.*, 1984). As many as 200 species of Octopodidae are known to occur in the world Oceans (Worms, 1983) and of these about 60 species are known from the Indian Ocean (Roper *et al.* 1984). The major species of octopuses, which contribute to world fishery, come under the genera *Octopus*, *Cistopus* and *Eledone*. The world landings of octopuses increased substantially from 35.8 thousand metric tonnes in 1950 to 317.2 thousand metric tonnes in 2001 (Jereb *et al.*, 2005).

The octopuses are considered as a delicacy. So much so they are commercially exploited from most of the marine regions. Octopuses in the continental shelf and oceanic region are caught mainly as a by-catch in the bottom trawl. The most important octopus fisheries and markets are located in Asia (particularly Japan) and in the Mediterranean countries. Among cephalopod resources, octopuses are the least exploited in India. Even though thirty-eight commercial species of octopuses have been reported from the Indian seas (Silas *et al.* 1985), a directed fishery exploitation for octopuses is lacking. In recent years the export possibility of octopuses has been looked into and there had been efforts towards the emergence of an octopus fishery in India. In India, trawlers are mainly used to exploit this resource.

The traditional practice employed for fishing octopuses in different parts of the world involves simple methods like trap setting, harpooning or poisoning the coral rock pools which they inhabit, during low tide. In shallow areas they are caught by setting traps and also by using longline, handline and spear. Some of the interesting methods adopted are reviewed hereunder.

According to Hornell (1917), in the Pacific Cook Islands and other Polynesian islands, the octopus is hunted by divers who carry two sticks, one with a pointed end and the other armed with a gaff-hook. They search for likely holes among the rocks of the sea-bottom, poking the pointed stick into the holes. If an octopus is at home, he resents this intrusion and wraps his suckered arms around the stick. Then, the gaff is brought into play, and with its big hook the octopus is dragged out,

and once caught, the fishermen kill the octopus by turning its body inside out, forcing gills, heart and viscera out through the wide opening of the branchial chamber. This process is known as 'turning its cap'. The most distinctive trick employed by the Polynesians to deceive the octopus is the rat lure. This consists of a cone-shaped stone about three inches long on top of which two oval sections of cowry shells are attached and a long tail made up of green coconut leaf is tucked in. This contrivance resembles a 'rat', which is lowered slowly to the bottom and constantly moved. The octopus holds to this tail and the moment octopus tightens its grip the fisherman pulls it out. According to folklore, the octopus hates rats and tries to kill them the moment it sees them.

There is another trick practised in the Cook Islands. The diver takes down a handful of slaked lime and empties it at the entrance of the crevice. Any octopus that may be in occupation gets distressed by lime diffusing through the water, comes out and is eventually caught and killed. In Italy and in Japan, a large number of small unglazed earthenware jars are tied at intervals to a long line, and laid on the bottom till the next day, when the fisherman lifts them and extracts all octopus that may have taken possession of the jars. In Malta, octopus is taken with a jigger armed with three to four hooks. In Campeche bank, Mexico, the exploitation of octopus is carried on during the reproductive season when the population is concentrated near the coast, where the turbidity of water is high. In the years, when the time of increasing turbidity is delayed, fishers remain in ports until turbidity increases (Francisco, 1992).

In India, Octopuses are captured by employing various methods such as hunting with spear to fishing traps. Bait fishery is practised in the coastal villages bordering Palk Strait in Tamil Nadu, particularly at Tondi and Thiruppalakudi. The shell traps are made of indigenous materials such as empty seashells, thin coir ropes and wooden floats. Empty molluscan shells, largely of *Lambis lambis*, *Tonna dolium*, *Rapana bulbosa*, *Murex virgineus* and *Hemifusus* sp. are utilised for making octopus catching lines. The finger-like projections of *Lambis lambis* are usually broken off before use. About 100 to 120 of these shells are strung along a thin coir rope each 15 to 20 cm apart. A number

of such lines are laid (some hundreds of short branch lines tied on at intervals of 5 to 6 feet) at the bottom of the sea at four to six meters depth and the ends of the lines buoyed with large wooden floats. When lifted in the next morning many of the shells are tenanted by little octopods (Sarvesan, 1974).

In Andaman and Nicobar islands, during low tides, extensive reefs are exposed and when this happens at night, villagers carry with them 2 metre long torches made of dried coconut palm leaves and fish the octopus out using different types of spears. Octopuses are caught also by poisoning coral rock pools which are created during low tide especially along Malacca Bay and Car Nicobar island, and Tamilnadu Coast, and the poison used is the mashed seed of a plant *Barringtonia*, that is abundant along the waterfront (Silas *et al.* 1985).

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