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NOTE

New Technique for the Separation of Jelly Fish in Trawl Codend

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The cod end of trawl is often filled with large quantity of jelly fish during post monsoon period, resulting in gear damage or abandoning of the catch. A new technique of incorporating large mesh (70-90 mm) false cod end extending between the throat and up to 2/3rd length of cod end effectively separated jelly fish from the target species facilitating the discard easier. Onboard tests proved the possibility of saving the catch almost completely without damaging the gear.

Key words: Jelly fish, codend, trawls

The accumulation of jelly fish in the cod ends during trawling, especially in the post monsoon period, has been an unavoidable menace as its presence in huge quantity affected the gear profile and subsequently the catch prospects. The predominance of jelly fish in the codends often resulted in heavy load, which ultimately led to tearing, or bursting of codend. As a consequence, the trawler fishermen are often forced to cut open the cod end before it is hauled up, as a precautionary measure to avoid severe damage to the net. This condition resulted in loss of catch. It is noticed that quality fish and prawns were also present in appreciable quantity along with jelly fish and as such the trawlers could not afford to discard the catch as a whole to overcome the jelly fish menace.

Various methods were tried to avoid the capture of jelly fish or to separate it from other fishes, preferably before entering into the cod end. Incorporation of large mesh window on the top of cod end or providing an exit slit in the throat region of the trawl for the escape of jelly fish, had been experimented for solving the problem. Even though this method has been successful in facilitating the release of jelly fish to some extent, there have been instances of losing almost half of the fish/prawn catch along with jelly fish. Therefore, an alternate device was designed and tested which enabled the separation of jelly fish from other catch.

This device consisted of a false codend of large meshes, of varying mesh size (70, 80 & 90 mm) fitted inside the codend proper (Fig.1). This codend, with its proximal edge laced to the interior of the throat, extends to 2/3rd length of the actual codend. The distal part is tied before trawling is commenced. The jelly fish remained in the large mesh codend and the fish/shrimp are filtered off and accumulated in the rear of the codend. The percentage of fish caught in three different mesh sized false codend (70, 80 & 90 mm) and the attached codend proper is presented in Table 1.

Table 1. Percentage of jelly fish and other fish in false cod end proper

False codend			Codend proper		
Mesh size (mm)	Jelly fish	Other fish	Mesh size (mm)	Jelly fish	Other fish
70	100	70	30	Nil	30
80	90	40	30	10	60
90	80	20	30	20	80

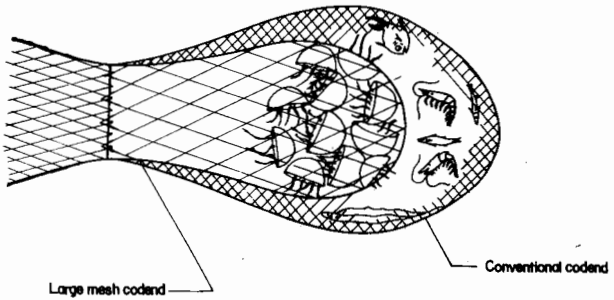

Fig. 1. Conventional codend with large mesh codend cover.

In this method, jelly fish remains in a separate bag and the rest of the catch in the codend. The latter is untied for removing the useful catch and the jelly fish can be thrown back into the sea by opening the false codend. The larger size group of fishes retained along with jelly fish can be picked up with less effort while releasing the jelly fish. This procedure saves the net from getting damaged due to overloading with reduction in the time consumed for sorting the catch. As the pressure exerted on the cod end due to accumulation of jelly fish is lowered, due to its separation in the false cod end, the possibility of overloading the cod end proper is considerably reduced. In all probability, this method will be a boon to the fishermen as the jelly fish in the cod end will cease to be a threatening factor as far as gear safety is concerned, and the trawlers are also ensured of a clean catch totally devoid of jelly fish. It may also be noted that the incorporation of the false codend was a cheap method and its installation on to the gear did not require any special skill.

This device was found highly effective in separating jelly fish when fitted to a trawl gear experimented in the inshore waters off Cochin, from the vessel belonging to Central Institute of Fisheries Technology, Cochin

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