

Fishery for cephalopods using Fish Aggregating Device off Blangad in Kerala

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Fish Aggregating Device (FAD) is being deployed off Blangad a small coastal village in Chavakkad, Thrissur district of Kerala, for catching squids and cuttlefishes. The FADs are made up of coconut spadix (locally known as *Kolanjil*), plastic bottles, nylon ropes, pieces of fishing nets and sacks containing large quantities of sand. This structure is locally known as *Norumbu* and fishermen from Colachel and Kanyakumari are mainly involved with this activity. The coconut spadix tied with nylon ropes and plastic bottles as float have sacks filled with sand as anchors (Figs. 1 & 2). This structure erected in the sea in identified sites at a distance of 20-44 km from shore and having 30-50 fathom depth, acts as an aggregating device, especially for cephalopods. The fishers record its position on their Global Position System (GPS) unit and after 5 days arrive to operate hooks & lines (Fig.3). Fishing season is from October-May and during the peak season, around 200 fibre boats are operating from

Blangad. Most of the boats are fitted with 2 numbers of 9 hp outboard engines. A tractor is used for hauling the boat to the beach (Fig.4).

The fishing activities start early in the morning and return to the shore by around 5pm in the evening. The trade of the catch of fish and cephalopods lasts up to 9 pm. The landings were regularly monitored from October 2018 to March 2019. Sampling and field observations were conducted in the evening to assess the catch composition, size, and the number of boats arrived. Details about the method of setting up FADs in the sea was collected by interviewing fishermen. The average number of cuttlefishes a single boat fetches was recorded by monitoring landings from all boats over the study period which was found to be around 100. Their weight was also noted. The cuttlefishes were found to be in ripe condition. During the study period, the only species recorded was *Sepia*



Fig.1. Loading *Kolanjil* in the boat



Fig.2. Floats used for FAD



Fig.3. Hook used for fishing



Fig.4. Tractor used for hauling the boat with catches

pharaonis weighing about 3 kg each (Fig.5). A number of its juveniles were also noticed in the landings, which weighed 110- 230 gm each (Fig.6).

The hooks & lines are operating not only in the regions where these FADs are installed but in other areas also. Thus, the landings at Blangad consist of cephalopods and fishes with the former exclusively from the FADs and latter that primarily includes large pelagics like seerfish, tunas, barracudas, mackerel, carangids and bulls eyes from other areas. The trend in landings of cephalopods and fishes in hooks & lines at Blangad based on estimated fish landings data during 2009-2018 that was collected

by the Fishery Resources Assessment Division of ICAR-CMFRI is indicated in Fig.7. Hooks and line fishery of cuttlefish at Blangad was reported earlier by Baby (2011).

The landings of cephalopods varied from 5868 t in 2010 to 386 t in 2017 and the overall share of cephalopods in total landings by hooks & lines was 81% during 2009-2018. The cephalopods are being sold to local agents @ ₹350/kg and is meant for export. Over the years, this fishery is showing signs of decline. Trapping the cuttlefishes which seasonally migrate to inshore waters for spawning can be seen as a reason for the dwindling population of this resource in the region. The moored



Fig.5. Cuttlefish catch



Fig.6. Catch showing the share of juveniles

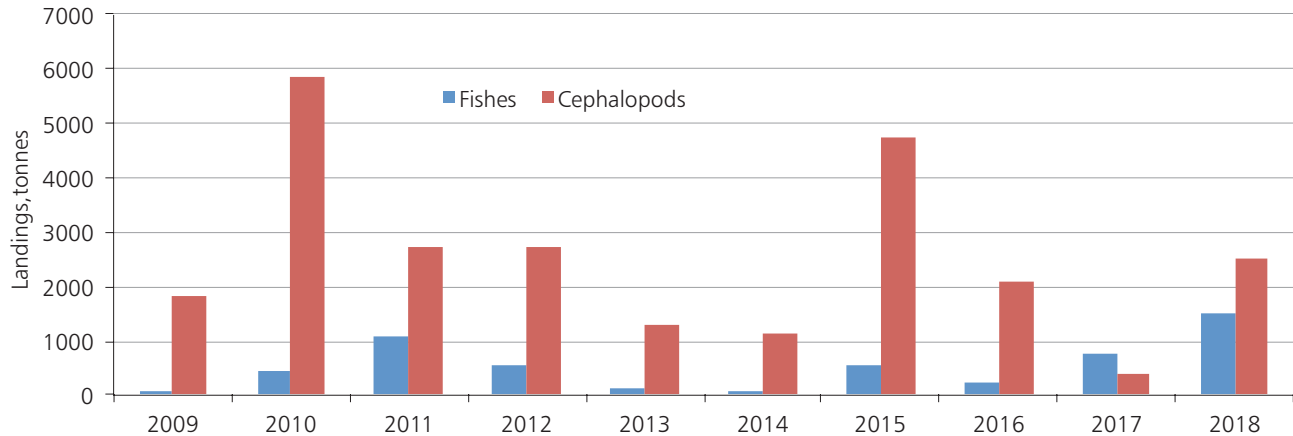


Fig.7. Yearwise landings by Hooks & lines at Blangad during 2009-2018

aggregating devices offer a suitable place to spawn and in that attempt they are easily caught in the hook. Further, since these FADs are installed in rocky areas where safe places are available for fishes to breed, those shelters will be destroyed by depositing tonnes of sand which is used for anchoring the device. Moreover, by this method of fishing, lot of plastic bottles/other plastic items, nylon ropes and net pieces will also be deposited in the sea causing pollution in the environment. This kind of

fishing for cephalopods has been banned in Karnataka (Geetha *et al.*, 2015) and also recently in Kerala under the Marine Fisheries Regulations Act framework of these maritime states.

References

- Geetha Sasikumar *et al.*, 2015. *CMFRI Marine Fisheries Policy Series No.1*, 56p.
 Baby K. G. 2011. *Marine Fish. Infor. Serv., T & E Ser.* 208: 32-33