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ABSTRACTS

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Scope for light assisted fishing in Southeastern Arabian Sea

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Squid jigging is a fishing method using light attraction carried out for the exploitation of squids. Squid jigging was carried out in the Arabian Sea (8°N to 17°N lat and 64°E to 76°E long) during August 2010 to March 2013 on board a trawler converted squid-jigger MV Titanic. Apart from squids a number of marine fishes were also seen attracted to light, during the fishing operation. The aggregations were indicated after 2 to 3 hours of illumination, based on visual and echosounder observations. The oceanic pelagic fishes which aggregated in the proximity of the vessel were caught by hook and line operation. The catch consisted of tunas such as little tuna (Euthynnus affinis), striped bonito (Sarda orientalis), bullet tuna (Auxis rochei rochei), skipjack tuna (Katsuwonus pelamis), yellowfin tuna (Thunnus albacares); moonfish (Mene maculata); horse mackerel (Megalaspis cordyla); sharks such as silky shark (Carcharhinus falciformis) and blacktip shark (C. limbatus); halfbeaks (Hemiramphus marginatus) and queenfish (Scomberoides tol). The results indicate scope for light assisted fishing in Arabian Sea.

Keywords: Light assisted fishing, squid jigging, Arabian Sea

Occurrence and distribution of paralarvae and juveniles of purpleback flying squid Sthenoteuthis oualaniensis in the Arabian Sea

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Information on distribution of larvae and juveniles of purpleback flying squid (Sthenoteuthis oualaniensis) was obtained from surveys conducted, during September 2010 to March 2012 in the Arabian Sea (8°N to 17°N lat, 65°E to 76°E long, depth range: 300 to 4000 m), onboard trawler converted squid-jigger MV Titanic. Larvae were collected from fishing grounds using a 200 μ mesh and 57 cm dia plankton net and juveniles were caught by using a 2 mm meshed scoop net. The larvae were observed in six stations and juveniles in fourteen stations out of the 58 stations sampled. Samples were preserved in 5% buffered formalin and brought to the laboratory for analysis where they were sorted, identified, counted and measured (ML - Mantle length in mm). Dense aggregations of oceanic squid juveniles were collected from around Lakshadweep Islands in the area, 10°00-10°14 N lat. and 71°59-73°44 E long, during October, January and February. An analysis of the distribution area shows that the species uses continental shelf edge and underwater mounts for breeding. This observation indicated that the area around the Lakshadweep Islands during the pre-monsoon period is a major spawning ground for purpleback flying squid, probably because of higher productivity as compared to the central Arabian Sea basin which is the normal