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ABSTRACTS



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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

foraging area for adults. The size range of the paralarvae ranged from 1.47 to 9.18 mm whereas that of juveniles varied from 9.18 to 94.65 mm. Separation of the tentacles usually thought to mark the end of the paralarval period in ommastrephids, occurred at 9.18 mm ML in purpleback flying squid. Animals of size 9 to 95 mm were therefore considered as juveniles. In juveniles, proboscis is fully separated and forms two tentacles. The growth rate from paralarvae to juveniles are described.

Keywords: Distribution, paralarva, juveniles, purpleback flying squid, *Sthenoteuthis oualaniensis*, Arabian Sea