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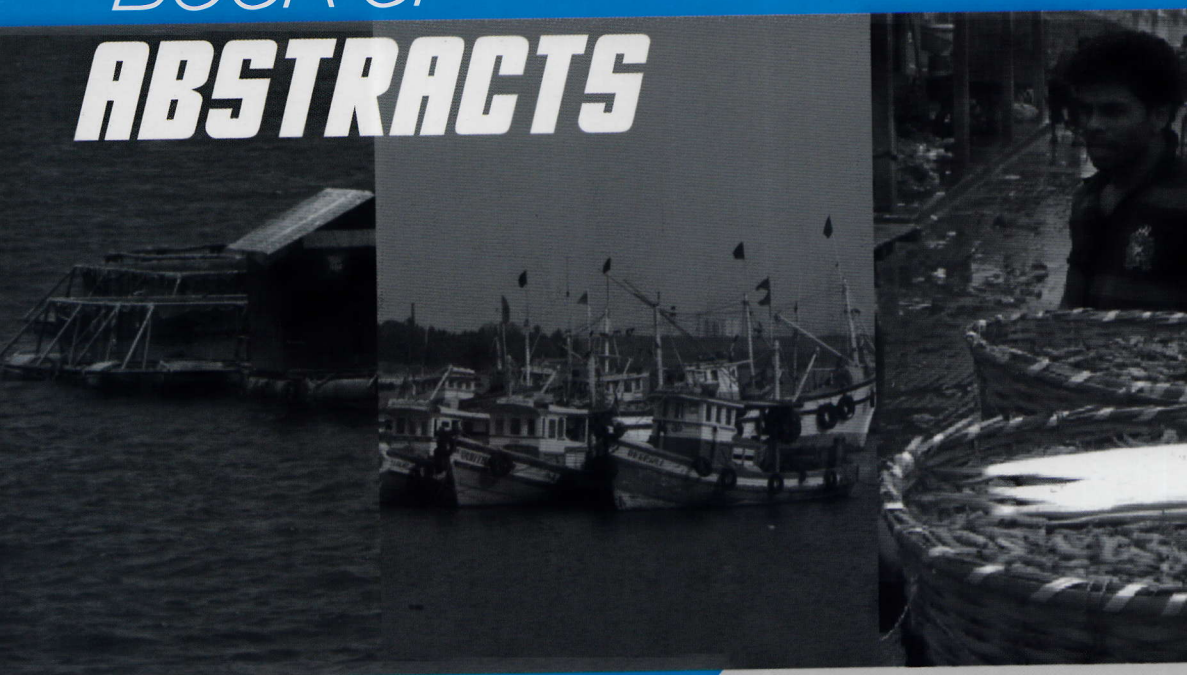
BOOK OF ABSTRACTS



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Age, growth and diet of *Thysanoteuthis rhombus* (Troschel, 1857) (Cephalopoda, Thysanoteuthidae) from southeastern Arabian Sea

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The diamond back squid *Thysanoteuthis rhombus*Troschel, 1857, is the single species in the family Thysanoteuthidae having a cosmopolitan distribution in tropical and subtropical waters of world. They are distinguished from all other squid by evolutionary and behavioural peculiarities. Juveniles and mature male specimens of diamond squid *T. rhombus* were collected during the exploratory survey conducted in southeastern Arabian Sea in 13 February 2013 (Seven). They were also collected from gillnet and trawl landings in Cochin Fisheries Harbour on 26 October 2016 (thirty). Additional single paralarvae were collect from southeastern Arabian Sea by using IKMT operated from '*FRV Silver Pompano*' on January 2015. Age and growth were estimated by statolith increment analysis of 27 specimens (DML: 100 to 570 mm). The growth rate of juvenile ranged from 1.44 to 1.95 mm DML/day. Maximum age in mature male was154 days with a mantle length of 570 mm having a growth rate of 3.77 mm DML/day. Differences in growth with seasons were apparent. Seasonal analysis revealed that the monsoon cohort had a higher growth rate than post monsoon cohort. The reproductive structure of mature males was illustrated. They have 13 numbers of spermatophores inside the Needham's sac with a total spermatophore length ranging from 54 to 63 mm. Nearly 45% of stomachs were empty. Crustaceans are the dominant prey item for early juveniles, while fish and squid were the major diet of late juveniles and adults pecimens. Ontogenetic difference in the diet were apparent. The occurrence of paralarvae, juveniles and adult in southeastern Arabian Sea show that that *T.rhombus* completes its whole life cycle in this sea. Present study provides preliminary information on age, growth and biology of *T.rhombus* for the development of artisanal fishery focused on this species.