

A comparison of length-frequency versus statolith age analysis of *Uroteuthis (Photololigo) singhalensis* in eastern Arabian Sea

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Loliginid squids are a commercially important group of neritic squids in the coastal marine waters in tropical and temperate regions around the world and are valuable resources in many areas. *Uroteuthis (Photololigo) singhalensis* is listed among the commercial species of loliginid squid exploited from the China Sea to the eastern Arabian Sea. Though this species is distributed from western Pacific to the Indian Ocean from the Andaman Sea, the Bay of Bengal to the Arabian Sea and the eastern African coasts, there is little information on the life cycle of this species throughout its distributional range. The objective of this study is to determine the length-weight relationship, age and growth of *U. (P.) singhalensis* off eastern Arabian Sea. Most earlier estimates of growth in tropical squids are derived from length frequency analysis. The accuracy and precision of squid growth estimates have been enhanced by using statolith increment analysis, hence statolith increment is used to

determine age and individual growth rate of squid off the eastern Arabian Sea. Further, the comparison of the length frequency analysis with statolith ageing techniques is attempted.

Over 1,800 squids (males-825; females-701; unsexed-284) were sampled from trawlers during 2013 to 2016 in the eastern Arabian Sea off southeast coast of India; their growth was analyzed by traditional fisheries methods (ELEFAN). From 2017 to 2018, 148 squid from trawlers were aged using statolith increment analysis. To estimate the relationship between dorsal mantle length (ML) and weight (TW) for males and females the power equation $TW=a ML^b$ was used. There was no significant difference in the ML-TW relationship between males and females.