

## Catch length structure, Mortality and Exploitation of *Otolithes Ruber* During the Ten-Year Period (2000-2010) in The Northwest of Persian Gulf

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### Abstract

In the present study, length structure, mortality and exploitation rate of *Otolithes ruber* during a ten-year period were studied. Sampling was carried out by using bottom trawl net in the fishing area in Northwest of Persian Gulf over 1 year study period. Length data was also collected from fisheries research institute and fishery organization. Age determination was done by reading annual rings on sectioned otolith. Growth parameters were calculated based on age and length data. These data were used to estimate natural mortality rate. Total mortality was obtained from the age curve. Logarithmic catch and natural mortality were calculated from Pauly's equation. The averages of length in the last ten years were 35 to 39 cm. The samples ranged in length from 12 to 58 cm with the maximum frequencies between 28-44 cm. Length distribution was normal in this study. The maximum catch was composed of fish in the 40 to 48 cm length range with an average age of 2 to 3 years. The average total mortality, natural mortality and fishing mortality were 0.98, 0.56, and 0.42 respectively. Mortality was higher in age group 0 and age group 1, but mortality of the other age groups dramatically decreased. Exploitation rate in the last ten years were 0.42 indicating a near complete exploitation. Based on the results a more effective exploitation strategy is suggested in this region.

**Keyword:** Mortality, Exploitation, *Otolithes ruber*, Northwest of Persian Gulf

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