SOME POPULATION DYNAMICAL PARAMETERS OF SUEZ PUFFERFISH (*LAGOCEPHALUS SUEZENZIS* CLARK AND GOHAR, 1953) STOCK FROM THE ISKENDERUN BAY

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Abstract

This study was carried out for the identification of some population dynamical parameters of suez pufferfish (*Lagocehalus suezensis* Clark And Gohar, 1953) distributed along the western coast of İskenderun Bay. For this purpose, the seasonal sampling was made at two stations at 10m and 20m deep layers in between of 2006 to 2017. The samples were caught by using a commercial bottom trawl net with 22mm mesh size. A total of 1279 individuals were investigated, and among them 427 were males, 586 of them were females, 266 of them were juveniles. Total length ranged from 5.2 to 24.0cm and mean length was 13.44 ± 2.02cm; total weight changed 1.77g to 232.97g, and mean weight was 32.05 ± 14.28g for total individuals. Length-weight relationships were $W = 0.02 * TL^{2.83}$ for males, $W = 0.02 * TL^{2.82}$ for females, and $W = 0.02 * TL^{2.89}$ for total individuals. The best fit to the length frequency distribution were obtained by the growth parameters as $L_\infty = 26.25$cm $K = 0.65$ year^{-1}, $C = 0.60$ and $WP = 0.12$ for total individuals. Instantaneous rate of natural (M), fishing (F), and total (Z) mortalities were found to be 1.01 year^{-1}, 0.265year^{-1} and 1.27 year^{-1} respectively. The exploitation rates (E) was determined as 0.21 year^{-1}. Therefore on the suez pufferfish distributed in İskenderun Bay were under fishing pressure.

Keywords: Suez pufferfish (*Lagocehalus suezensis*), Northeastern Mediterranean, Growth, Mortality, Exploitation rate