



SOME POPULATION PARAMETERS OF THE PUFFERFISH *LAGOCEPHALUS SCCELERATUS* (GMELIN, 1789) FROM THE FINIKE BAY, EASTERN MEDITERRANEAN SEA

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Abstract

Lagocephalus sceleratus is a Lessepsian species of Indo-Pacific origin that has rapidly invaded the eastern basin of the Mediterranean and has established an increasing population. In this study, some population parameters of the pufferfish were studied in the Finike Bay, Eastern Mediterranean Sea. A total of 402 individuals were collected by monthly interval from Finike Bay between March 2017 and August 2017 by using different types of nets and long lines, at depths ranging from 12 m to 110 m. The TL (total length) of the samples varies between 14.2 cm and 68.7 cm with an average 41.39 cm and total weight from 45.3 – 3657.98 g with an average of 1058.65 g. The sex ratio (M/F) is 1:0.7 with a total number of 235 males, 165 females and 2 unidentified individual. Length weight regression parameters for males, females and all individuals were estimated. The length weight relationship shows that the exponent b values were 2.9993 for male, 2.9919 for female of *L. sceleratus*. The length weight relationship revealed isometric growth for males, females and combined sexes with insignificant difference between males and females ($P > 0.05$). Age reading was conducted by using the vertebrae and their age changed from 0 to 7 years old. Growth parameters for combined sexes were $L_{\infty} = 109.72$ cm, $K = 0.12$ year⁻¹ and $t_0 = -0.4544$ year. Total mortality, natural mortality, fishing mortality and exploitation rate of this population were found to be as $Z=0.31$ year⁻¹, $M= 0.097$ year⁻¹, $F= 0.217$ year and $E= 0.689$ year⁻¹, respectively.

Keywords: Tetraodontidae, Pufferfish, *L. sceleratus*, Eastern Mediterranean, Lessepsian fish.