

# Otolith Dimensions-Total Length Relationships of Atlantic Stargazer (*Uranoscopus scaber* Linnaeus, 1758) Captured from Northeastern Mediterranean

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**Aim of the study:** Atlantic stargazer, *Uranoscopus scaber* is widespread in the Mediterranean and Black seas as well as along the Atlantic coast of Europe up to Portugal and the Bay of Biscay. This species is a bottom species that is found at depths ranging from 15 to 400 m. Atlantic stargazer is caught in large numbers by bottom trawl but has minor commercial value in Turkey. This study provides the first information on the otolith dimensions-fish length relationships of *U. scaber* inhabiting Iskenderun Bay, northeastern Mediterranean Sea.

**Material and Methods:** Fish specimens were captured by commercial trawler at a depth of 80 to 100 m from the Iskenderun Bay (Hatay, Turkey) between May 2015 and December 2015. Fish specimens were transported to the ecophysiology laboratory in Faculty of Fisheries, Firat University where they were identified, sexed and photographed. Each fish was measured for total length (TL) to the nearest 0.1 cm and weight (W) to the nearest 0.1 g and then the otoliths of the fish samples were removed. Right and Left Otolith lengths (OL), breadths (OB) weights (OW) were measured from each specimen nearest 0.001 mm and 0.0001g respectively. Although the difference between right and left otoliths in biometric measurements was statistically insignificant ( $P>0.05$ ), both otoliths were used for evaluation. The otolith dimensions-total length relationships were examined by using the following equation:  $y = a + bx$ .

**Results:** A total of 150 fish specimens (67 female and 83 male) were collected. Mean lengths were 17.21 cm in the all individuals, 18.67 cm in the females and 16.04 cm in the males; mean weights were 89.61 g in the whole population, 115.59 g in the females and 66.78 g in the males. The difference of the total length and weight between the female and male fishes was not statistically significant ( $P>0.05$ ). According to the regression analysis results, a moderate or strong positive relationship between the total length-otolith weight, total length-otolith length, total fish length-otolith width, fish weight-otolith weight, fish weight-otolith length, fish weight-otolith width, fish age-otolith weight, fish age-otolith-length, fish age-otolith width was determined. According to Harkönen (1986) there is a high correlation between total length and otolith length and that is generally a linear relationship.

**Keywords:** *Uranoscopus scaber*, Atlantic stargazer, otolith biometry, Iskenderun Bay, Northeastern Mediterranean

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