

Biometric Data and weight-length relationship of *Nezumia sclerorhynchus* (Valenciennes, 1838) (Pisces; Macrouridae) in the Northern Tyrrhenian Sea

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Nezumia sclerorhynchus is a characteristic species of bathyal bottoms from 350 metres of depth in the Northern Tyrrhenian Sea (Western Mediterranean) between Giglio and Montecristo Isles (SARTOR *et al.*, 1990; 1991). Until now biology of this species has been studied little in the Mediterranean Sea except some aspects concerning feeding (GEISTDOERFER, 1975; 1978) and growth (RANNOU, 1976).

This paper presents both information about the relationship between some morphometric measures and the weight-length relationship of 213 specimens of *Nezumia sclerorhynchus* collected during three trawl surveys (April 91, July 91 and October 91) on a bottom ranging from 380 to 600 metres of depth. The organisms were fixed in 5% seawaterformalin for a period of about 30 days.

On every specimen the following remarks were made: total weight (approximated to 0.1 gram); total length (T.L.) of 78 specimens, only those with the whole caudal zone; opercular length (O.L.) from the tip of the snout to the opercular margin (BAS, 1963). The linear measures were approximated to the lowest millimetre below.

T.L. and O.L. (fig. 1) were highly correlated ($r=0.987571$) and the linear regression parameters ($a=9.3408$; $b=6.1216$) were calculated with model I of regression that explains a variance of 96.53%.

The equation of regression ($T.L.=9.3408+6.1216 \cdot O.L.$) enable us to calculate T.L. of all collected specimens and to reconstruct the size composition of the sampled population (fig. 2) (range T.L.: 70.56-248.08 mm).

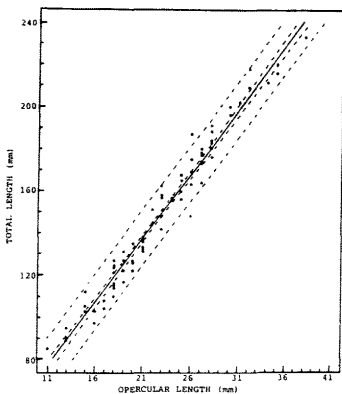


Fig. 1

The weight-length relationship (fig.3) was calculated by a linear regression (model I) applied to the multiplicative model $y=aX^b$. It has turned out a positive allometric relation ($\text{weight}=3.4 \cdot 10^{-8} \cdot T.L.^{3.78913}$) with high correlation coefficient ($r=0.989356$) and an explained variance of 97.88%.

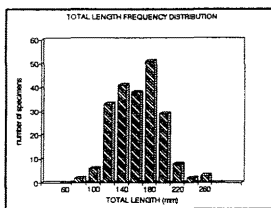


Fig. 2

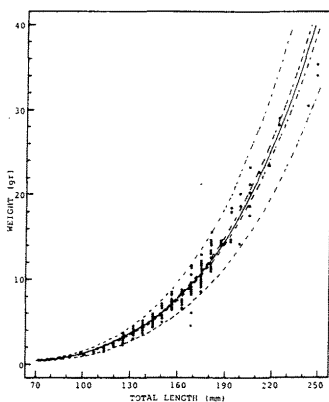


Fig. 3

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