

# Turkish Journal of Zoology

Turkish Journal  
of  
Zoology

## Growth and length-weight relationships of the horse mackerel, *Trachurus mediterraneus ponticus* (Aleev, 1956), off the Bulgarian Black Sea coast

Maria Hristova YANKOVA<sup>1</sup>, Violin Stoyanov RAYKOV<sup>1</sup>, Dimitar Borisov GERDZHIKOV<sup>1</sup>, Petya Bogomilova FRATEVA<sup>2</sup>

<sup>1</sup>Institute of Fishing Resources, Department of Ichthyology, P.O. Box 72, 4 Primorski Blvd., 9000, Varna, BULGARIA

<sup>2</sup>Professional Technical School, Plovdiv, BULGARIA

 [Keywords](#)  
[Authors](#)



[zool@tubitak.gov.tr](mailto:zool@tubitak.gov.tr)

[Scientific Journals Home](#)  
[Page](#)

**Abstract:** Between April 2007 and October 2008 we collected 1995 horse mackerel specimens from the territorial waters of the Bulgarian Black Sea. Age, length, and weight of these specimens were determined to estimate length-weight relationships and age composition. The present study utilized otolith characterization to determine age. The sex ratio was 1:1.36686 (M:F). The prevalent age classes were 2+, 3+, and 4+. The exponent  $b$  of equation resulted in the value 3.3046, which indicates that the weight growth is positive allometric. Growth parameters of the von Bertalanffy equation were separately evaluated for females and males as follows:  $L_{\infty} = 19.66$ ,  $K = 0.3075 \text{ y}^{-1}$ ,  $t_0 = -0.8359$ , and  $W_{\infty} = 69.676$ , and  $L_{\infty} = 18.78$ ,  $K = 0.3373 \text{ y}^{-1}$ ,  $t_0 = -0.8247$ , and  $W_{\infty} = 62.037$ , respectively. The maximum age was 6+ years for females and 5+ for males.

**Key words:** Horse mackerel, *Trachurus mediterraneus ponticus*, growth, Black Sea, Bulgaria

---

Turk. J. Zool., **34**, (2010), 85-92.

Full text: [pdf](#)

Other articles published in the same issue: [Turk. J. Zool., vol.34,iss.1](#).