

## Condition Index Analysis of Mussel *Mytilus Galloprovincialis* (Lamarck, 1819) from the Romanian Black Sea Coast

Elena-Daniela PANTEA<sup>1</sup>, Daniela Mariana ROȘIORU<sup>1</sup>, Natalia ROȘOIU<sup>2,3</sup>

<sup>1</sup>National Institute for Marine Research and Development Grigore Antipa, 300 Mamaia Blvd., Constanta, 900581, Romania

<sup>2</sup>Ovidius University of Constanta, Faculty of Medicine, Department of Biochemistry, Campus Building B, Constanta, Romania

<sup>3</sup>Academy of Romanian Scientists, 54 Splaiul Independenței, 050094, Bucharest, Romania

\*Corresponding author e-mail: epantea@alpha.rmri.ro, pantea.elena23@yahoo.com

### Abstract

The condition index of bivalve molluscs reflects the nutritional state and metabolic response to different environmental pressures. The development of bivalves in natural environments is mediated by the interaction between environmental factors. The aim of this study is to determine the condition index of the marine bivalve *Mytilus galloprovincialis* and to establish the relationship between environmental parameters and the index values. This study was carried out between November and December 2017, at four sampling sites. The mean values of condition index varied between 4.96 g (at 2 Mai) and 9.88 g (at Midia Năvodari Port), the highest index values being recorded in port areas. From all the analyzed parameters, the condition index showed a clear relationship only with seawater temperature, chlorophyll *a* concentration and total suspended solids.

**Keywords:** condition index, *Mytilus galloprovincialis*, environmental parameters, Romanian Black Sea coast.