

## Mesozooplankton Dynamics in The Romanian Black Sea Waters During 2020-2021

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**Abstract.** *The composition and space-time distribution of mesozooplankton community from the Romanian Black Sea waters during 2020-2021 was analysed. Sampling was carried out during two expeditions (October 2020, September 2021), resulting a number of 133 samples. A total of 21 taxa were identified, the maximum being recorded in 2020, with nine taxa among copepods. Variations were observed between the two cruises, the mesozooplankton community being best represented in October 2020, when the highest density and biomass values were observed. The fodder component of the mesozooplankton community was dominant both in 2020 and 2021, Noctiluca scintillans (the nonfodder component) being less represented, with lower density and biomass values. From the fodder component, Copepoda represented the bulk of the community, with the highest values in 2020, followed by Cladocera with a maximum development in 2021. Branchiostoma lanceolatum larvae were identified in 3 stations in 2020 and in one station in 2021 at different sampling depths.*

**Keywords:** taxa, abundance, biomass, *Branchiostoma lanceolatum*

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### 1. Introduction

The zooplankton community is represented by animal organisms found in the pelagic area, drifting in the water column, whose locomotion abilities are insufficient to withstand currents. These communities are very important in marine food webs, being the main consumers of phytoplankton and a feeding source for fish, thus controlling phytoplankton production and modelling processes within pelagic ecosystems [1].

Marine zooplankton comprises a large variety of organisms, divided into size classes, ranging from:

- microzooplankton (20-200μm)
- mesozooplankton (0.2-20mm)