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ORIGINAL PAPERS

THE MACROZOOBENTHIC SPECIES OF THE INFRALITTORAL AND CIRCALITTORAL ZONE FROM THE ROMANIAN BLACK SEA COAST – A QUALITATIVE AND QUANTITATIVE ASSESSMENT

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Abstract. *The paper aims to present the results of the analysis of 20 macrozoobenthic samples collected in 2022 from the Romanian Black Sea shore. The depth of the sampling sites ranged between 12.3 m and 42 m, corresponding to the infralittoral and circalittoral zones. Qualitatively, 102 taxa of macrozoobenthos including 36 polychaetes, 25 crustaceans, 20 molluscs, 10 nemertians and 11 taxa representing other groups, were recorded. Polychaetes were predominantly abundant, representing 55.92% of density. Species such as Melinna palmata Grube, 1870, Heteromastus filiformis (Claparède, 1864) and Prionospio cirrifera Wirén, 1883 recorded the highest densities. Among crustaceans, the most abundant species were Ampelisca diadema (Costa, 1853), Phtisica marina Slabber, 1749 and Medicorophium runcicorne (Della Valle, 1893). The molluscs Abra prismatica (Montagu, 1808), Spisula subtruncata (da Costa, 1778) and Polititapes aureus (Gmelin, 1791) were considerably abundant as well. The average density of the benthic populations was 1571 indv/m^2 . By far the highest densities were recorded at two sites located close to the Danube's Sf. Gheorghe mouth, at depths of 12.3 m and 19.9 m, represented 18.40%, respectively 16.42% of the total average density. The other sites recorded densities not greater than 6%. The average biomass was 236.54 g/m^2 and was dominated by molluscs (90.74%). Among stations, Sf. Gheorghe (40.1 m) recorded the highest biomass, representing 42.60% of the total average biomass.*

Keywords: benthic fauna, distribution, Black Sea, polychaetes, Romania

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Introduction

The Black Sea forms a unique ecosystem due to its physico-chemical and biological characteristics. This basin is strongly influenced by freshwater inputs, and therefore nutrient loads [6]. In the last decades, the condition of zoobenthos from the

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