Seasonal variations of density and biomass of macrobenthic fauna in shallow water coasts of the Caspian Sea and Babolroud estuary (Babolsar)

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Abstract
For studying seasonal variations, density and biomass of macrobenthic fauna, samples were collected seasonally along three different depths (5, 10 and 15 m) in three transects (9 stations) using grab sampler in shallow water coasts of the Caspian Sea, and three stations in the estuary of Babolroud River at Baboolsar coast during 2007-2008. Crustaceans, bivalve and polychaetes were the dominant groups in different seasons in depths of shallow water coasts; but in estuary stations, bivalve and crustaceans were dominant in different seasons. Density and biomass of macrobenthic animals increased with increase of depth to 15 m due to higher organic matter loads and decreasing of grain sediment ingredients. Grains sediment and water depth were the two main factors in distribution and biomass of macrobenthic groups in sea stations. However, in estuary stations, the salinity of water was the most important parameter affecting on the density and biomass of macrobenthos. Obtained results recommended that the estuaries region of Babolroud River has lower macrobenthic groups compared to shallow water coasts of the Caspian Sea, but the latter had higher density and biomass.

Keywords: Density and Biomass, Macrobenthic fauna, Caspian Sea, Babolroud River.