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The Effect of Seasonal Variations on Diversity and Dominance of Intertidal Polychaeta of the Persian Gulf (Bushehr Province)

Baghernezhad, Najmeh[1]; Salari-Aliabadi, Mohammad Ali[2*];
Ronagh, Mohammad Taghi[3]; Vazirizadeh, Amir[4]

1- M.Sc. Student of Marine Biology, Faculty of Marine Science and Oceanography, Khorramshahr Marine Science and Technology University, Khorramshahr, Iran. Email: n.baghernezhad@yahoo.com.

2- Department of Marine Biology, Faculty of Marine Science and Oceanography, Khorramshahr Marine Science and Technology University, Khorramshahr, Iran. Email: salari1346@yahoo.com.

3- Department of Marine Biology, Faculty of Marine Science and Oceanography, Khorramshahr Marine Science and Technology University, Khorramshahr, Iran. Email: mtronagh@yahoo.com.

4- Department of Marine Biology, Persian Gulf Research and Study Center, Persian Gulf University, Bushehr, Iran. Email: amirvz@yahoo.com.

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Abstract

The aim of this study was to identify and assess the diversity and dominance index of polychaete in the rocky intertidal area of the Bushehr province in 3 stations include Bushehr, Dayer and cape of Nayband. Sampling was carried out in four seasons during 2011-2011 along one transect perpendicular by the quadrate 0.5×0.5 square meters at low tide zone. At each station, one transect deployed perpendicular to the shore. Samples were collected on each transect from low tide level up to the high tide area. Environmental factors such as temperature, salinity and pH were measured in each station. Our results indicated the highest and lowest temperatures in the summer (33.9°C) and winter (19.26°C) and the highest and lowest salinities were recorded in the summer (43.15 ppt) and autumn (40.62 ppt). There were no significant changes in acidity in all seasons. In this study, 16 families of polychaetes were identified. Among them; species *Spirobranchus kraussii* had the highest frequency during the study years. The highest and lowest diversity was observed in the summer and autumn, respectively.

Keywords: *Polychaetes, Tidal, Environmental factors, Diversity, Rocky shores, Bushehr, Persian Gulf.*