

The investigation of species diversity and dominance of Decapoda of the intertidal zone of Bushehr rocky shores-the Persian Gulf

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Abstract

For studying the population structure of the Decapoda crustaceans of the Intertidal zone of Bushehr rocky shores, we collected biological specimens totally from 4 stations during 4 seasons, autumn (1386) to summer (1387). The sampling unit in this study was a 50×50(Cm) quadrat and the sampling was carried out randomly. The samples were sorted and fixed in the 10% ethanol after transferring to the biology laboratory and then were identified by keys and other resources. One of our aims in this study was calculation of species diversity and dominance. Further more, we measured some environmental factors such as Salinity, DO, temperature, and pH with digital equipments. In this study, we identified 8 species of 5 Decapoda families. The most species frequency contained *Petrolisthes rufescence* 51%, *Pagurus* sp. 22%, *Metapograpsus maculatus* 7%, *Pilumnus* sp. 6.5%, shrimp 3% and other species 10%. We also used ecological index for comparing species diversity. According to the results, frequency and diversity rate reduced in cold seasons (autumn & winter). The temperature was an important factor in these changes. Two stations (C & D) had the most diversity and least pollution. In the total period, *Petrolisthes rufescence* had the highest Dominance frequency.

Keywords: *Decapoda*, *Species diversity*, *Dominance*, *Intertidal zone*, *Bushehr*
