

## Study on Gastropoda population in subtidal area from the eastern coasts of the Chabahar bay

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### Abstract

In the present study, population structure of gastropoda was investigated from subtidal zone of the eastern coasts of Chabahar bay with sampling of sediments in 4 stations including: Chabahar, Ramin, Lipar and Kochu using Van Veen Grab Sampler during one year. According to the results, the number of 8292 number /m<sup>2</sup> belonged to the 31 family were identified. The spatial and seasonal mean abundance (number/m<sup>2</sup>) of gastropoda were: Chabahr: 546±351 (spring: 308±215; summer: 517±299; Autumn: 241±163; winter: 987±621), Ramin: 121±117 (spring: 127±101; summer: 42±38; Autumn: 103±50; winter: 200±191), Lipar: 138±128 (spring: 79±81; summer: 281±170; Autumn: 36±7; winter: 134±127), Kochu: 133±93 (spring: 143±103; summer: 101±65; Autumn: 149±102; winter: 179±79). There were no significant differences between almost sampling stations in terms of seasonal (except Lipar station) and depth-dependent abundance of gastropoda ( $P>0.05$ ). However, the abundance of gastropoda were significantly higher in depth 15 m than in 5 and 10 m in Kochu station ( $P<0.05$ ). The richness index increased significantly from spring towards winter ( $P<0.05$ ). In contrast, Shannon diversity index was higher in autumn and winter than in spring and summer ( $P<0.05$ ). Also, the richness and Shanon indices increased from Chabahar station towards Kochu station ( $P<0.05$ ). There were significant correlations between abundance of some gastropod families with sediment and water parameters as follow: *Calyptridae* vs. pH, *Columbellidae* vs. pH, *Marginellidae* vs. O<sub>2</sub>, *Cyclostomatidae* vs. O<sub>2</sub>, *Pyramidellidae* vs. pH, *Acteonidae* vs. pH, *Columbellisae* vs. O<sub>2</sub>, *Marginrllisae* vs. pH, *Pyramidellidae* vs. O<sub>2</sub>, *Fasciolaridae* vs. S, *Retusidae* vs. Silt.

**Keywords:** Gastropoda, Chabahar bay, population structure, subtidal.