

Community structure of planktonic copepods in Hendijan harbor (NW Persian Gulf)

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ABSTRACT:

The qualitative and quantitative dynamics of the copepod community in Hendijan harbor was studied through zooplankton samples collected seasonally in summer 2010 (July- August), autumn 2010 (October), winter 2011 (December-February) and spring 2011(April). The copepods community was represented by 27 species, belonging to calanoida (16 species), cyclopoida (5 species), Poecilostomatoida (3 species) and harpacticoida (3 species). The highest abundance of copepods was in summer ($14402 \pm 3352 \text{ Ind/m}^3$) while the lowest was in winter ($852 \pm 155 \text{ ind/m}^3$). of the adult forms, *Acartiella faoensis* was the most abundant species, forming 19% of the total copepods, followed by *Paracalanus parvus* (17%), *Corycaeus andrewsi* (13%) and *Clausocalanus arcuicornis* (8%). Most of copepod species displayed distinct seasonal occurrence relative to environmental conditions. The spearman's correlation revealed that temperature and salinity were the most important factor controlling the size of copepods density in Hendijan harbor. The cluster analysis demonstrated different types of association between copepods species. The highest value of Shannon's diversity index, Margalef index and Pielou's evenness was noticed in summer. These results revealed that the summer is different from other seasons of the year and in this season the ecological situation is better and more stable than other seasons in Hendijan shores waters.

Keywords:

Acartiella faoensis, Hendijan harbor, Copepod community.