

Plankton Assemblage Changed in Southern Offshore Bushehr Waters

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Abstract

Spatial and temporal variation of the plankton assemblages were analyzed by PCA with supplementary variables. Seasonal sampling was performed one year (2001). Samples were collected from offshore Bushehr waters. Phytoplankton was collected by Niskin bottle sampler, and zooplankton by plankton net (100 µm) at 10 selected stations.

Temporal compositions of the plankton assemblages were found to be different with hydrological parameters. Dominant phytoplankton assemblage during the warm period were included; *Oscillatoria*, *Phormidium* and *Alexandrium*, and zooplankton assemblage were included; Nauplius, Harpacticoid and Bivalves. Dominant phytoplankton assemblage in cold condition included; *Pleurosigma*, *Thalassiothrix* and *Oscillatoria*, while zooplankton were; Nauplii and Cyclopoid. There was a significant difference between warm and cold season period in phytoplankton diversity whereas zooplankton diversity did not have significant differences. The result of PCA on Phytoplankton assemblage showed negative correlation with temperature and conductivity and positive with nutrient. Also, the most different situation was in layers of more than 50 m. Zooplankton assemblages were correlated with different parameters of different depth layers. This relation changed with different hydrological conditions.

Keywords: *Plankton Assemblage, Hydrological Condition, Offshore, Bushehr Waters, Persian Gulf.*
