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Relationships Between Environmental Physicochemical Factors, Zooplankton and Jellyfish Blooms in Chabahar and Pozm Bays (Makran (Oman) Sea)

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Abstract

Species identification is the first step in prediction and management of jellyfish blooms. The present paper describes the jellyfishes in the northern part of the Makran (Oman) Sea. Processes underlying the variations observed in jellyfish diversity in the Gulf of Oman were also investigated. Samples of jellyfishes and other zooplanktons were collected from 9 stations within four seasons including Nov. 2014, March 2015, May 2015, and Sep. 2015. In each station, environmental variables were also recorded from bottom and surface water. A total of 83 individuals of medusae representing by four species belonging to Scyphozoa (i.e., *Cyanea nozakii*, *Chrysaora* sp., *Pelagia noctiluca*, *Catostylus* sp.) and three species belonging to Hydrozoa (i.e, *Diphyes* sp., *Rhacostoma* sp., *Aequorea* spp.) were collected in the study area. The result of manual forward selection test analysis yielded no significant association between species composition of jellyfish and other zooplanktons. Among environmental variables, water transparency, depth and temperature were best explained the total variation in jellyfish species composition. None of the variables were so significant to cause jellyfish mass occurrence.

Keywords: *Zooplankton, Scyphozoa, Hydrozoa, Jellyfish bloom, Pozm Bay, Chabahar Bay, Makran (Oman) Sea.*