

Effects of environmental factors on distribution of sea cucumbers in subtidal region of Chabahar Bay

Shakouri, Arash^{1*}. Nabavi, Seyed Mohamad Bagher². Kochanian, Preeta³. Savari, Ahmad², Safahiye, Alireza²

1. Department of Marine Biology, Faculty of Marine Science, Chabahar Maritime University.

2. Department of Marine Biology, Faculty of Marine Science, Khoramshahr University of Marine Science and Technology

3. Department of Fisheries, Faculty of Marine Natural Resources, Khoramshahr University of Marine Science and Technology.

Abstract

Considering the importance of environmental factors on marine organisms, a survey of factors that affect the subtidal sea cucumber community was carried out in the eastern part of Chabahar Bay, a region with anthropogenic effects on marine ecosystem, from May 2007 to July 2008. Four quadrates with 100m² area were sampled with SCUBA diving method in each region. Temperature had significant variation among the stations and seasons. There is a positive correlation (99%) between salinity and sea cucumber density and a negative correlation (95%) between turbidity and density. PCA indicated that salinity, pH, turbidity and temperature had 82.78% of all variance of the environmental factors and other factors did not exhibit such a relation with sea cucumber dispersion. Northern stations (Sepah and Kalantary) were located in same category in Fall 2007 and Winter 2008. These stations had the least pH and the highest salinity and turbidity in Fall and the highest pH and the least turbidity in Winter. Southern stations (Beheshti and Hotel Daryai) located in the same category in summer and fall 2007. These stations had the most pH and the least salinity in the summer and the most temperature and turbidity in the fall.

Keywords: Chabahar Bay, sea cucumber, density, environmental factors, subtidal region

* Corresponding Author's E-mail: aarash220@yahoo.com