

## Survey on Dispersion and Occurrence Pattern of Sea Cucumbers in the Eastern Part of Chabahar Bay (North of the Oman Sea)

Shakouri, Arash<sup>1\*</sup>; Nabavi, Seyed Mohamad Bagher<sup>2</sup>;  
Kochanian, Preeta<sup>3</sup>; Savari, Ahmad<sup>4</sup>; Safahiye, Alireza<sup>5</sup>

1- Assistant Professor, Chabahar Maritime University, Chabahar, Iran. Email: aarash220@gmail.com

2- Assistant Professor, Khoramshahr University of Marine Science and Technology, Khorramshahr, Iran. Email: m.nabavi@kmsu.ac.ir

3- Associate Professor, Khoramshahr University of Marine Science and Technology, Khorramshahr, Iran. Email: p-kochanian@kmsu.ac.ir

4- Professor, Khoramshahr University of Marine Science and Technology, Khorramshahr, Iran. Email: savari53@yahoo.com

5- Assistant Professor, Khoramshahr University of Marine Science and Technology, Khorramshahr, Iran. Email: safahieh@hotmail.com

Received Date: December 31, 2011

\*Corresponding Author

Accepted Date: December 31, 2012

---

© 2012 Oceanography All rights reserved.

### Abstract

This research has carried out on the eastern part of Chabahar Bay, the region with the highest human effects on the ecosystem. Four stations were selected. In each station, four quadrates with 200 m<sup>2</sup> area sampled by SCUBA method. Investigations occurred in the middle month of each season. Dispersion of subtidal sea cucumbers was determined by index of dispersion test. Frequency of occurrence of species calculated. *Stichopus variegatus* and *Holothuria leucospilota* are permanent species with cumulative distribution. *H. hilla* is a common species with random distribution in winter and cumulative distribution in other seasons. *H. pervicax* is a rare species with cumulative distribution, although it is observed only in the spring. *H. arenicola* (rare sp.), *H. atra* (common sp.) and *H. parva* (rare sp.) have a random distribution. In spite of these results, the observation of sea cucumbers in their habitats indicates that distribution of such animals have a cumulative pattern. Difference between field observation and statistical calculations is due to the fact that all sea cucumbers which according to calculations had random distribution, only observed in 1 or 2 quadrates in a few individuals (1 or 2) and should not be assigned as animals with random distribution. The most important reasons for cumulative distribution of sea cucumbers are aggregation of nutrients and used habitats that in the searching area were rocky.

Keywords: *Sea cucumber, Dispersion pattern, Occurrence pattern, Chabahar Bay.*

---