

Abstract

Over-fishing of marine resources has endangered many commercial fish species in the world; With aquaculture development, setting up artificial reef systems is an important way for marine stocks and fishing enhancement. The present study was designed to monitor fish abundance and species changes around a small and newly established artificial reef system in Moloo area at Bandar-e-lengeh during two years after installation (Sep. 2005 to Sep. 2007).

The artificial reef includes three types of concrete structures arranged in a seven by three grid. Each cross point considered as a sampling station and two other stations selected from two sides of the system as control stations.

Based on obtained results CPUE ($P = 0.00001$), frequency ($P = 0.001$) and species diversity of captured fishes ($P = 0.024$) showed significant differences between three types of sampling traps .

with type of structures, The CPUE and frequency of fishes in transect 7 (mixed structures) showed the significant differences with other six transects ($p = 0.001, P = 0.009$). No diversity relationships were seen between transects ($p = 0.100$).

In this study there were no significant differences between depths.

Although the means of CPUE between seasons were different, but the ANOVA test could not show the significant differences because of the differentiation between variances.

The T-Test showed no significant differences between the number per trap per day dominant species (*Epinephelus coioides*, *Plectorhinchus shotaf*, *Diagrama pictum*, *Siganus javus*) in different seasons.

Movie prepared from Artificial reefs showed diversity of fish were more than that of fishing by trap. although fishes increased but there was no enough causes evidences for product in Artificial reefs. Therefore, the study need to continue in this area.

Key word : Artificial reef, Bandar Lengeh, monitoring of stocks , density, diversity , CPUE and Hormuzgan

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Monitoring of commercial marine stocks around
Hormuzgan (bandar-e-Lengeh) artificial reefs

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