Ecological condition of macroscopic green algae coast in Bushehr province

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Receive date: 2013.09.23
Acceptant date: 2013.12.06

Abstract
The aim of this study was to evaluate the biodiversity and density of green algae from the coasts of Bushehr province in the Persian Gulf during two warm and cold seasons. Entromorpha intestinalis was dominant species in between two green algae that was sampled from all stations and had the most density (878 ±323.19 n/m2) in all stations. These species also had the most density (658 ± 465.27 n/m2) in Ganaveh station. The most density (586 ± 227 per m) of E. intestinalis observed in the mid and middle tidal zones. Rhizoclonium riparium species was observed at four tidal zones. The most density of green algae was belonging to spring (826 ± 346.48 numbers in m2). The highest biomass (500 ± 353.55 gr dry weight in m²) of green algae observed in Ganaveh station. The most green algae biomass (505.8 ± 349 gr dry weight in m²) was revealed in the spring. Most of Margalef index (0.18) was related to the nuclear power station. The highest Simpson index (0.94) and Shannon index (0.59) were belonged to Lower Mid Littoral area of the tidal zone and the Upper Mid Littoral of the tidal zone, respectively. There was a low relative correlation between temperature and density of green algae (R2 = 0.15) at studied stations.

Keywords: Persian Gulf, Bushehr, Tidal zone, Green algae.