Distribution and Abundance of Phytoplankton Species with the Potential of Harmful Bloom in Southeast Coast of Iran

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Abstract

Harmful Algal Blooms (HABs) frequency, intensity and geographical extension have been increasing worldwide. The Southern coast of Iran is not different from the other coastal areas. The present study was done to investigate distribution, intensity, and density of phytoplankton species with the potential to form harmful algal bloom along the southeast coast of Iran. The water sampling was carried out every two weeks from late April to late September 2009 in eight different locations. Totally, 54 phytoplankton species identified and their cell density determined in each location. The results showed that among all identified phytoplankton species, 22 species have the potential to form harmful bloom in the southeast coast of Iran; among which *Cochlodinium polykrikoides* was a bloom former species before southeast monsoon in most locations. Its maximum density was 1.9×10^7 cell/L in late May 2009. *Gymnodinium* sp. with maximum density 6×10^6 in late September was also a bloom former species after monsoon but more distributed in eastern sites of Chabahar.

Keywords: Bloom, Harmful algae, Gulf of Oman, Abundance, Dispersion.