## Seasonal changes in phytoplankton community structure in relation to physico-chemical water factors of Gomishan International wetland in Golestan province

## **Abstract**

In this study the diversity and density of phytoplankton in Gomishan international wetland of Golestan Province was Seasonal considered from Winter to Fall 2013. Water sampling was performed in One transects and 6 points in Gomishan international wetland. Overally, 53 phytoplankton species belonging to five branches were identified; including 16 species of Bacillariophyta, 9 species of Pyrrophyta, 12 species of Chlorophyta, 14 species of Cyanophyta and two species of Euglenophyta. Also in terms of Seasonaly sampling, 30, 29,28 and 19 species of phytoplankton were respectively identified in Spring, Summer, Fall, and Winter . Based on OECD method and the average of chlorophyll a, the Gomishan international Wetland of Golestan province is classified as an Etrophic region . Based on this results, necessary measurements should be performed to reduce depleting urban sewage, industrial and agricultural waste water to coastal water in Golestan province in order to conserve marine environment Gomishan international wetland .

**Keywords**: Chlorophyll a, Phytoplankton diversity and density, Eutrophy, Gomishan international wetland.



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