



Study on Water quality of Sanandaj Dam lake by algal biological indicators- IRAN

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Abstract

In a recent study, a study of water quality and the phytoplankton population of lakes behind the Sanandaj Dam Lake were conducted for a period of one year from June 2015 to June 2016. The study was performed at five stations, four seasons, and identified phytoplankton species, as well as the Shannon and Palmer coefficients. In this study, 6 phytoplankton groups of Bacillariophyta, Chrysophyta, Pyrrophyta, Cyanophyta, Chlorophyta and Euglenophyta were recorded with 20, 1, 9, 6, 16 and 2 species respectively. Examination of phytoplankton communities during the study of the Sanandaj Dam Lake shows the predominance of Bacillariophyta group of diatoms with 20 species during the year and then the group of green algae or Chlorophyta with 16 species. The lowest frequency of species diversity was observed in Chrysophyta and Euglenophyta groups with 1 and 2 species, respectively. The Shannon index varied in different seasons, with the highest in the summer at 1.58 and then in the fall (1.41), winter (1.24) and spring (1.19), respectively. The highest number of species belongs to the first station and the lowest of them belongs to the last station. The water quality of the Sanandaj Dam Lake was studied through Palmer biological index. The final results showed that the water quality in the lake of Sanandaj Dam, with the exception of some stations, is generally of good quality.

Keywords: Phytoplankton, Shannon Index, Palmer Index, Lake, Sanandaj