Study of factors affecting eutrophication in Kani-Brazan wetland, West Azerbaijan

Reza Sokouti Oskoee[1*]
Hamid Ranaghad[2]

1. Department of Soil Conservation and Watershed Management Research, West Azarbaijan Agricultural and Natural Resources Research Center, AREEO, Uromieh, Iran
2. Master of West Azarbaijan, Department of Environment, Uromieh, Iran

***Correspondig author:**
rezasokouti@gmail.com

Received date: 2018/07/15
Reception date: 2018/12/15

Abstract

One of the phenomena that lead to the deterioration of surface water quality specially reservoirs is eutrophication caused by nutrients increasing like nitrates and phosphates in water resources. In this study, nitrate, phosphate and other factors such as temperature, turbidity, biological oxygen demand were measured monthly in six stations during the years 1393-1394 and the status of eutrophication in Kani-Brazan wetland and its influencing factors were investigated. The concentration of phosphorus and nitrogen of the wetland water were classified to the fourth trophic level of Oligotroph, Mezotroph, Eutroph and Hypertroph, and by comparison with international standards of Nuremberg, wetland eutrophication status was determined. Results showed that the average annual value of the water temperature was 17.4°C, pH=8.02, turbidity=16.03 and BOD was 5.8 (max=8.2 in spring and min=6.9 in summer). The values of all forms of nitrogen varied between 0.4 to 0.8 mg/lit indicating the trophic health of the wetland. The amont of phosphorus in wetland was upper than the limit of 0.03 mg/lit indicated that continue of this process could have consequences for the wetland ecosystem and affects attractive aquatic environment greatly.

Keywords: Trophy, Kani-Brazan wetland, Nitrogen, Phosphorus.