**Determination of water quality of water resources feeding Akyatan Lagoon, Adana**

**Fatma CEVIK1, R. Hasret SAHIN2, Evsen GUZEL1\***

*1 Çukurova University, Faculty of Fisheries, Department of Basic Sciences, Department of Inland Waters Biology, ADANA*

*2 Can Akademi Kişisel Gelişim Kursu, ADANA*

\*evsen\_yavuz\_112@gmail.com

Surface water quality is a very sensitive and critical issue in many countries. Water quality monitoring is necessary for the protection of water resources. Ramsar conservation areas of environmental importance, such as Akyatan Lagoon, there is a great need to assess surface water quality. Akyatan lagoon, located in Adana province, Karataş District, cannot be fed adequately in the dry season due to the dry summers in the region, it loses water due to high evaporation, thus the lake area becomes smaller. Nutrients such as the bioavailable forms of phosphorus and inorganic nitrogen (ammonium, nitrate and nitrite) are important factors affecting lake water quality and they play an important role in the eutrophication process in surface waters.

In this study, samples were collected monthly from the six water sources feeding the Akyatan Lagoon during the dry season. Nitrite (NO2), nitrate (NO3), ammonium (NH4), phosphate (PO4-P), silicate (SiO4) and chlorophyll-*a* (chl-*a*) concentrations in water samples were measured by UV-spectrometry using standard methods. Other parameters were measured with multiparameter sonde (YSI 6600). Water quality concentrations were determined in the range of 24,85-32,46 oC, 784-2357 µScm-1, 0,43-1,54 gL-1, 0,36-1,21, 26,1-94,3 %, 2,01-7,09 mgL-1, LOQ-0.16 mgL-1, 0.16-10.15 mgL-1, 0.12-1.24 mgL-1, 0.01-0.05 mgL-1, 1.45-10.16 mgL-1, 4.34-50.44 mgL-1 for temperature, conductivity, total dissolved solid, salinity, saturated oxygen, dissolved oxygen, NO2, NO3, NH4, PO4-P, SiO4, chl-*a*, respectively. With the obtained data, it has been determined that the drainage waters entering the lagoon increase the eutrophication of the lagoon.

**Keywords**: Akyatan Lagoon, water quality, surface water