

SOME PHYSICO-CHEMICAL FEATURES OF LAKES IN MUĞLA PROVINCE (MUĞLA-TURKEY)

Lakes are among the most important wetland ecosystems. Lakes which are important ecologically are special ecosystems and have many significant roles such as arranging water regime of the region, enabling characteristic plant and animal groups to live and forming a great source economically, culturally, scientifically and recreationally. Also lake as a resource for diverse human activities (water withdrawal, fishery, recreation and tourism, energy production, waste water emission) and as a shelter for nature has to be adequately managed and exploited according to the approved regulations.

Mugla Province, located between 36°17' and 37°33' Northern latitude and 27°13' and 29°46' Eastern longitude, has 13 328 km² surface area and a very rough terrain. The province is located in the basins of Büyük Menderes, Dalaman and Eşen Rivers and surrounded by the Mediterranean Sea in the South and the Aegean Sea in the West. Mugla Province is rich in terms of fresh water resources with major water resources in the province being the Eşencay and Dalaman Rivers, Bafa Lake, Güllük Lagün and Koycegiz Lake

This study was carried out between June 2011 and May 2012 in these important lakes; Koycegiz, Bafa and Limni Lake. These stations, selected these lakes were investigated for water quality aspects. In total 15 stations points were water sampled on these lakes. Water temperature, pH and electrical conductivity, dissolved oxygen were measured on site by using YSI 556 MPS multi-probe instrument. Samples taken from the site were measured in terms of ortho-phosphate, nitrite nitrogen, nitrate nitrogen and ammonium nitrogen in the Basis Sciences Laboratory of Fishing Faculty in Mugla Sıtkı Koçman University.

Water samples, taken from these stations were studied for physico-chemical evidences. Results of the study were determined as: water temperature (11,43–28,62 °C), pH (6,03–8,90), electrical conductivity (403,6–2124 µScm⁻¹), dissolved oxygen (1,73–11,42 mgL⁻¹), nitrite nitrogen (BDL-0,12 mgL⁻¹), nitrate nitrogen (BDL-25,85 mgL⁻¹), ammonia nitrogen (BDL-1,64 mgL⁻¹) and ortho-phosphate (BDL-1,24 mgL⁻¹). Physico-chemical data were evaluated in accordance with the Legislation of Water Pollution Control. As a conclusion of this study the pollution in these lakes were seen to be mostly influenced by a combination of anthropogenic factors, agricultural pollutants, tourism activities, domestic waste and sewage water.

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НЕКОТОРЫЕ ФИЗИКО-ХИМИЧЕСКИЕ ОСОБЕННОСТИ ОЗЕР В ПРОВИНЦИИ МУГЛА (ТУРЦИЯ)

Исследования проводились в трех крупных озерах провинции Мугла в период с июня 2011 года по май 2012 года. В 15 контрольных точках были отобраны пробы воды. Были определены: температура воды, рН, электропроводность, растворенный кислород. Результаты исследований показали, что загрязнение озер является следствием сочетания таких антропогенных факторов, как, сельскохозяйственные загрязнители, туристическая деятельность, бытовые отходы и сточные воды.