



Khadicha Lake Of Region Bukhara Type of Phytoplankton

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ABSTRACT

The article provides information on the geographical location of Lake Khadija, the morphometric features of the lake, water supply, blue-green, green, diatoms and euglena representatives of phytoplankton found in the lake. In addition, the number of species in each section, the taxonomic analysis of the species, and the seasonal variation in the amount of phytoplankton with water temperature also contributed.

Keywords:

Collector, phytoplankton, blue-green, green, diatom, euglena, seven nets, microscope.

In the territory of Bukhara region there are 7 reservoirs formed by the accumulation of drainage water. The total area of these wetlands is 101 thousand hectares. Lakes in Bukhara region, such as Dengizkul, Zamombobo, Kara-Kir, Agitma, Devxona, Khadicha and Zikri, were formed as a result of the accumulation of collector water, and in some of them during the winter months water freezing is observed in Kara-Kir, Khadicha and in Zikri lakes. In the Lake-Water according to the classification of A.O. Alekina (1948), the chloride-sulphate class belongs to the calcium group. During the season 70-80% of the territory of Zamombobo, Kara-Kir, Khadija and Zikri is covered with reeds, sedges, sedges and produces 80-100 kg / m² of green mass. More than 120 species of phytoplankton are found in these watersheds. The hydrobiological condition of water bodies has been studied by scientists. In particular, a lot of research has been done on the types of algae in water bodies and reservoirs, their distribution and the

impact of environmental factors on their diversity. The hydrobiological condition of water bodies has been studied by scientists.

Lake Khadicha is located in Karavulbozor district of Bukhara region. Lake Khadija was formed in 1980 as a result of floods flowing through the Kashkadarya River. Lake Khadija is located on the right bank of the ABMK, 50-100 m wide. But ABMK's water does not reach the lake. The area of the lake is 12,300 hectares, the length of the lake is 18-20 km, the widest part is 8 km, the maximum depth is 10.8 meters. The average depth is 4.6 m, and the volume of the lake is 57.5 million m³. The bottom of the lake is flat. The bottom of the lake is divided into the following biotopes. These are lithophilic, pssamophilic, argillophilic, pelophilic and phytophilic. The main part of the lake is composed of phytophiles, pelophiles, and pssamophiles. Phytophilic biotopes occupy 75-85% of the area.

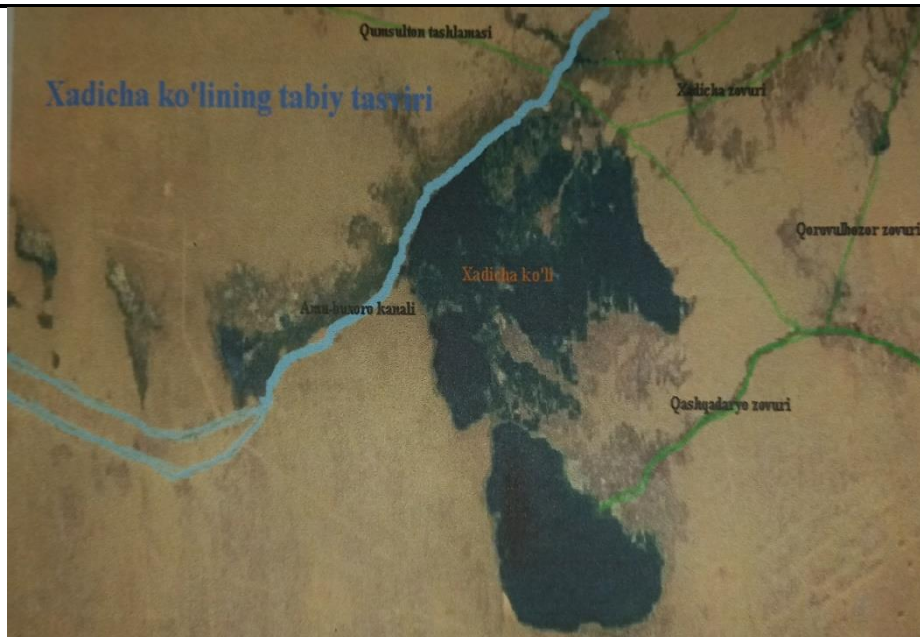


Figure 1. General view of the map of Lake Khadija

The water source of Khadija Lake is the Karshi collector. The water comes through 5 pipes with a diameter of 1 meter. But the dynamics of the amount of incoming water varies greatly throughout the year. Oil and gas drilling will be carried out in the area of Lake Khadija at a distance of 10-15 km. At a distance of 50-65 km, the collector, which is formed from the wastewater of the refinery, also throws its water into a separate ditch. The water from the ditch flows into Lake Kumsulton. Lake Khadija has the highest water supply in January-May.

A method of A.I. Kiselov is used for detection of phytoplankton in Khadija Lake and its water is sampled with a 0.5 liter bathometer. Lake Khadija is rich in organic matter, including biogenic matter. This affects the number, quantity and biomass of aquatic phytoplankton. Dominant species include diatoms (Bacillariophyta), blue-green algae (Cyanophyta), green algae (Chlorophyta), and euglena algae (Euglenophyta). 63 species of phytoplankton have been identified in Lake Khadija. (table). These species have a dominant feature. The lake blooms in April-May. The water turns green. This color indicates the presence of green algae - Chlorophyta. By summer, the water is much clearer. When measuring the clarity of the water with a "skew disk", it was found that it reaches 1.5-2 meters. A number of identifiers and an international

electronic database of phytoplankton have been identified to identify phytoplankton species in Lake Khadija. To detect phytoplankton, we collected a number of samples from Lake Khadija using a plankton net, gas-76, and fixed them with 4% formalin and detected them under an OPTICA microscope for laboratory training. Phytoplankton species are harvested in spring, summer and autumn

Table
Taxonomic analysis of phytoplankton species of Lake Khadicha, Bukhara region

№	Section	Number of taxonomic units					In %
		Class	Process	Family	Category	Type	
1	Bacillariophyta	2	4	7	10	22	34,92
2	Chlorophyta	4	5	9	10	20	31,74
3	Cyanophyta	1	3	5	6	14	22,22
4	Euglenophyta	1	1	1	2	7	11,11
	Total:	8	13	22	28	63	100,00

In the detection of phytoplankton of Lake Khadija, samples collected from different parts of the lake were fixed in formalin and studied under a microscope in the laboratory. When viewed under a microscope, there are 14 species of blue-green algae among the phytoplankton such species have been identified: *Oscillatoria limosa* Ag, *O.amphibia* Ag, *O.angusta* Koppe, *O.sancta* Gom, *O. Tenuis* Ag, *Merismopedia glauca* Nag, *M.tenuissima* Lemm, *Microcystis muscicola* Elenk, *Anabaena bergii* Ostenf, *A.variabilis* Kutz, *Phormidium ambiguum* Gom, *Ph.valderiae* Geitl, *Lyngbyna salina* Kutz, *L. limnetica* Lemm. The number of species of phytoplankton found in Lake Khadija increases with increasing water temperature, and the number of species reaches a high level in this condition.

There are 20 species of green algae in Khadija Lake: *Scenedesmus acuminatus* Chodat, *S.obliquus* Kutz, *S. quadrricauda* Breb, *S. acutiformis* Schroed, *Pediastrum borganum* Menegh, *P. Simplex* Meyen, *Chlorococcum infusionum* Menegh, *Chlorella ellipsoidea* Geneck, *Chlorella ellipsoidea* Geneck, *Ch. vulgaris* Beyer, *Ankistrodesmus angustus* Bern, *A. acicularis* Korschik, *A. arcuatus* Korschik, *Ulothrix zonata* Kutz, *U.variabilis* Kutz, *Clodophora glomerata* Kutz, *Vaucheria geminate* D.C., *Closterium parvulum* Nag, *Cosmarium angulogum* Breb, *Spiragira varianus* Czurd. These species were identified when the water temperature reached its maximum. As the water temperature decreases, the number of species also decreases, and it has been studied that the number of phytoplankton in

autumn is slightly less than in summer. Among the phytoplankton of Lake Khadija, there are 22 species of diatoms: *Diatoma elongatum* Ag, *D. anceps* Kirchn, *D. vulgare* Bory, *Melosera ambigua* O.Mull, *M.varians* Ag, *Cuclotella comta* Kutz, *C. operculata* Kutz, *C. bodanica* Eulenst, *Synedra acus* Kutz, *S.capitata* Her, *S.tabulata* Kutz, *Navicula cari* Her, *N.cincta* Kutz, *Cymbella laevis* Nag, *C. turgida* Cl, *Mastogloia baltica* Grun, *M. elleptica* Cl, *M. smithii* Thw, *Cyrosigma spenceri* Cl *Stephonodiscus astraea* (Ehr) Grun, *S.dubius* (Fricke) Hust, *Pinnularia apendiculata var. budensis* Grun. 7 rounds of Euglena algae- *Euglena variabilis* Klebs, *E.acus* Her, *E.aculeata* P.Christ, *E. hemichrcmata* Skuja, *E. proxima* Dang, *Phacus alatus* Klebs, *Ph. caudatus* Hubner.

According to the results of systematic analysis of phytoplankton species of Lake Khadicha in Bukhara region, it was determined that 63 species belonged to 4 divisions, 8 classes, 13 orders, 22 families and 28 genera.

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