

ALGOFLORA AND TAXONOMIC ANALYSIS OF FISHING PONDS OF BUKHORABALYK LLC

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Abstract: In the article, samples of phytoplankton found in the fishing ponds of Bukhorobalik LLC were collected. The collected algological samples were analyzed and information about 116 species of microscopic algae was presented.

Key words: algoflora, Bukharabalik LLC, algae, phytoplankton, Epstein, formalin, kapron mesh, central Bukhara collector, microscopic algae.

Introduction: Decree of the President of the Republic of Uzbekistan No. PQ-2939 of May 1, 2017 "On measures to improve the management system of the fishing network", Decree of the Cabinet of Ministers of the Republic of Uzbekistan No. 719 of September 13, 2017 "Fisheries "On measures for the comprehensive development of the network" and "On measures to strengthen the feed base of livestock and fishery industries"

From the analysis of algal research carried out in 2022-2023 in the fishing ponds of Bukharabaliq LLC, it was found that 102 types of microscopic algae are found in the ponds of this area.

collection of phytoplankton samples consists of two stages, i.e. quantity and quality samples. In both cases of the research, the Apstein grid is used. The brand of kapron mesh is No. 76, and the diameter of water entering it is No. 20. When calculating the amount of phytoplankton organisms, phytoplankton samples are collected from specially prepared glass containers at a depth of 0.7-1 m. Standard methods were used for sample collection and analysis. A few drops of 4% formalin solution were added to the collected samples and kept in a cool place for several days, and the species composition was determined. XDS-3, B-380 light microscope was used during the research work. The quantity of phytoplankton was determined in units/l, and biomass in mg, g/m³.

Algologically pure culture of *Chlorella vulgaris* was isolated from common species identified. For this, 04 nutrient medium was mixed with water samples taken from a fishing pond and placed in front of windows with good light.

According to the results of the algological studies conducted in the fishing ponds located in the eastern region of Bukhorobalik LLC, it was found that there are 116 types of microscopic algae in these fishing ponds. Their belonging to 75 genera, 42 families, 26 orders (tribes), 11 classes (ancestors) was analyzed (Table 1).



Table 1

Taxonomic composition of algoflora of fishing ponds located in the eastern region of Bukhorobaliq LLC

Departments of algae	Class (ancestor)	Order (tribe)	Family	Order	Species
<i>Cyanophyta</i>	1	4	10	13	16
<i>Bacillariophyta</i>	3	7	13	25	37
<i>Dinophyta</i>	1	2	2	5	7
<i>Euglenophyta</i>	1	1	2	5	14
<i>Chlorophyta</i>	5	12	15	27	42
Jami:	11	26	42	75	116

According to the data presented in Table 3.1.2, compared to the total number of species, Chlorophyta 36.2% (42 species) and Bacillariophyta 31.9% (37 species) are the leaders with the highest number and amount of species in the water of fishing ponds . Cyanophyta 13.8% (16 species), Euglenophyta 12.06% (14 species), Dinophyta 6.03% (7 species) occupy the next places among sections.

From the results of the algological analysis of the ponds located in the eastern part of the farm, it can be seen that in these ponds, the species of such genera as Nitzschia (8), Cosmarium (7), Phacus (6), Euglena (5), Merismopedia (4), Spirogyra (3) are numerically dominant. does. These 6 categories include 33 species and make up 28.4% of the algoflora of the ponds located in the above area.

Scientific research work was carried out in 2022-2023, and initially experiments were conducted to determine the hydrochemical composition of water samples taken from farm ponds. Water samples taken from ponds were collected by Yu.Yu. With the help of Lure methods, water analysis was carried out in the research laboratory "Biotechnology and Ichthyology" under the Department of Biotechnology and Food Safety, Faculty of Agronomy and Biotechnology, Bukhara State University.

The total area of fishing ponds of Bukhorobalik LLC is approximately 290-310 hectares. Its fishing ponds are organized, that is, the part covered with water is 250 hectares. An Apstein net was used to collect phytoplankton samples from fishing ponds. Kapron mesh was brand No. 76, and the diameter of the water inlet ring was 20 cm.



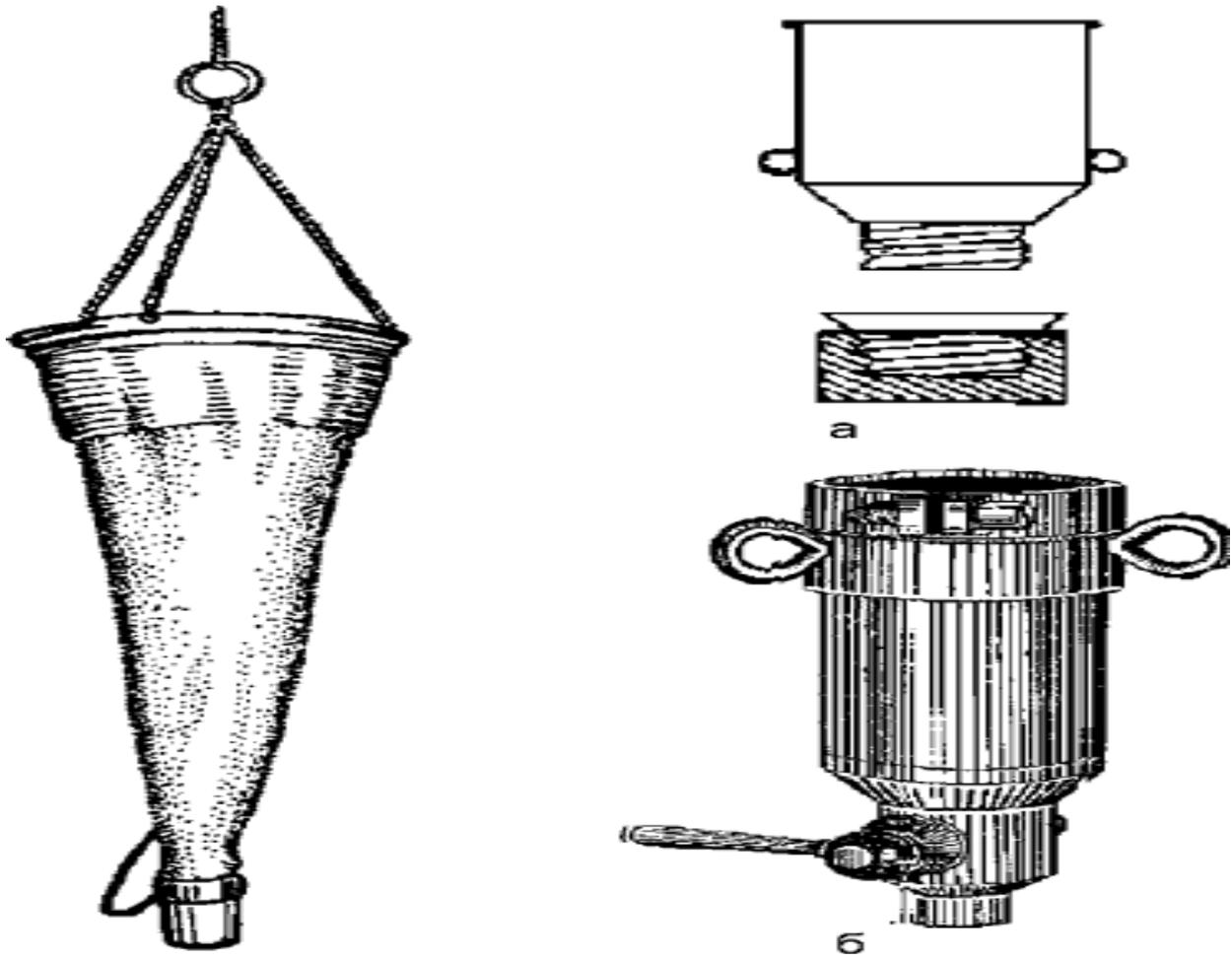


Figure 1. the structure of the Apstein net for collecting phytoplankton samples



Figure 2. Collection of phytoplankton samples from fishing ponds

Since the fishing ponds of Bukhorobalik LLC were formed using the waters of the Central Collector and canals, the water contains a large amount of biogenic elements. As a result, phytoplankton causes rapid reproduction of organisms.

The quantity and green biomass of microscopic algae in fishing ponds changes during the season and year. The growth and development of microscopic benthic algae and the distribution of green biomass in fishponds vary according to several factors.

In conclusion, samples of phytoplankton found in the fishing ponds of Bukharabalik LLC were collected. The collected algal samples were analyzed and the presence of 116 types of microscopic algae was scientifically proven.

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