

TAXONOMIC ANALYSIS OF LAKE ALGOFLORA LOCATED IN VODIL VILLAGE OF FERGANA VALLEY

¹Muattarkhan Yuldashova, ²Saidkamol Khaydarov, ³Dilfuzakhan Rahimova, ⁴Durdonahan Abduganiyeva

¹Associate professor of Fergana State University

¹Doctor of philosophy in Biological Sciences (PhD)

²Philosophy (PhD) in Biological Sciences, Fergana State University

³Senior lecturer, Fergana State University

⁴Master of Fergana State University

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Abstract. In this article, we will focus on the taxonomic analysis of the algoflora of the lake located in the middle part of the Shakhimardonsoy-Margilonsoy river basin near the Vodil post. As a result of our algal studies, 75 species and varieties of algae (61 species, 14 variations) were found in Lake Vodil. Among the algae, in terms of the number of species and species, there were a large number of algae from the divisions Bacillariophyta (59), Chlorophyta (9) and Cyanophyta (5).

Keywords: algoflora, taxonomy, environmental environment, ruchey, water, ecology, natural environment, hydrogen.

Introduction. There are several natural lakes in the Fergana Valley, which are located in different regions and in different ecological conditions. Based on the investigations, we determined the taxonomic and ecological analysis of algoflora of these lakes.

We will focus on the taxonomic analysis of the algoflora of the lake located in the middle part of the Shakhimardonsoy-Margilonsoy river basin near the Vodil post.

Lake Vodil is located in the basin of the Shahimardonsoy river, in the lower mountain region, and the seepage was caused by waterways. It is located 450 east of the river. The lake is a small basin, 80 meters long, up to 50 m wide, average depth from a few cm to 1.5 m, with a muddy bottom. The water of the lake is blue, the clarity reaches to the bottom.

In winter, the water in the lake begins to decrease, and only in the deepest part, at least 30% of the lake's water is stored. In winter, the bottom of the lake is covered with a solid layer of ice, and in the spring it is slowly filled with water.

The water temperature in Vodil Lake varies according to the seasons. In December, the air temperature is 2⁰C in the middle of the day, the water temperature is 4⁰C, in the summer, the second half of July, the first half of August, the water temperature rises to 25⁰C. In August, the average air temperature varies around 33-35⁰ C.

Methods. The active reaction of the water of Lake Vodil is pN=7.5-8.5, because the lake is located in a rural area and has been subjected to various anthropogenic influences. The environment of Vodil village is a unique habitat for hydrobionts.

Flowering plants that grow in water can be found in Vodil Lake. They are adapted to the flat and calm areas of the lake bottom. Cladophora, Spirogyra, Hydradictyon (algae) and Hara are prominent species of algae.

The places where aquatic plants grow are muddy and there are many remains of plants and animals. In summer, the water clarity in the central part of the lake is 0.5-1.5 m. As a result of light reaching these depths, underwater meadows were formed.

In some cases, members of the diatoms *Melozira* and *Cyclotella* are found in the benthos.

Results. As a result of our algological studies, 75 species and varieties of algae (61 species, 14 variations) [1-5] were found in Lake Vodil 1 – table.

Among the algae, in terms of the number of species and species, the algae of Bacillariophyta (59), Chlorophyta (9) and Cyanophyta (5) divisions were found in large numbers.

In the lake, the main part of the algae of the division Bacillariophyta □ such as *Cyclotella baicalensis* Skv., *C.comta* (Ehr.) Kuetz., *C.planctonica* Brunth., *C.stelligera* Cl. et Grun., *Chaetoceros wighamii* Bright., *Tabellaria binialis* (Ehr.) Grun., *T.fenes-trata* var. *intermedia* Grun., *Diatoma vilgare* Bory., *Fragilaria construens* (Ehr.) Grun., *Synedra ulna* var. *oxyrhynchus* (Kuetz.) V.H., *S.tabulata* (Ag.) Kuetz., *S.vaucheriae* Kuetz., *Cocconeis pediculus* Ehr., *Achnanthes nodosa* A.Cl., *A.lance-olata* (Breb.) Grun., *A.taeniata* Grun., *Roicosphenia curvata* (Kuetz.) Grun., *Mastogloia grevillei* W.Sm., *M.smithii* Thw var. *amphicephala* Grun., *Navicula costulata* Grun., *N.cryptocephala* var. *veneta* (Kuetz) Grun., *N.cincta* (Ehr.) Kuetz., *N.incerta* Grun., *N.longirostris* Hust., *N.lundstroemii* var. *subcapitata* Wisl. et Poretzky, *N.subtilissima* Cl., *N.radiosa* var. *tenella* (Breb.) Grun., *N.peregrina* (Ehr.) Kuetz., *Neidium productum* (W.Sm.) Cl., *Amphora ovalis* Kuetz., *Cymbella aspera* (Ehr.) Cl., *C.austriaca* Grun., *C.cesatii* (Rabenh.) Grun., *C.helvetica* Kuetz., *C.microcephala* Grun., *C.perpysilla* A.Cl., *C.prostrata* (Berkeley) Cl., *C.skvort-zowii* Skabitsch., *C.tumida* (Breb.) V.H., *C.turgida* (Greg.) Cl., *C.venricosa* Kuetz., *Gomphocymbella ancyli* (Cl.) Hust., *Gomphonema constrictum* Ehr., *G.gracile* var. *auritum* (A. Braun) Cl., *G.innatum* Skv., *G.intricatum* var. *minor* Skv., *G.heidenii* Fricke., *Epithemia ocellata* Kuetz., *Rhopodia gibba* var. *mongolica* Øctr., *Bacillaria paradoxa* Gmelin., *Nitzschia angularis* W.Sm., *N.communis* Rabenh., *N.grasilis* var. *minor* Skabitch., *N.navicularis* (Breb.) Grun., *N.palea* var. *debilis* (Kuetz.) Grun., *N.telezkoensis* Sheshukowa, *Surirella angustata* var. *hankensis* Skv., *S.linearis* W.Sm., *S.biseriata* var. *constricta* Grun.

Chlorophyta among the most common types and species of algae in the department *Pediastrum boryanum* (Turp.) Menegh., *Oocystis crassa* Wittrock., *Ulotrix aequalis* Kuetz., *Cladophora fracta* (Muell. ex Vahl) Kuetz., *Spirogyra calospora* Cleve, *S. hassalli* (Jenner) Petit., *S. infiata* (Vauch.) Rabenh., *Penium exiguum* W. West., *Closterium jeneri* var. *robustum*. f. *minus* Skvorts. and others met.

Cyanophyta from section algae - *Synechococcus elongatus* Naeg., *Rha-bdoderma lineare* Schmidle et Laut., *Oscillatoria willei* Gardn., *Phormidium boryanum* Kuetz., *Lyngbya perelegans* Lemm. such species were found in small numbers.

Euglenophyta from section algae - *Trachelomonas oblonga* Lemm., *Strombomonas longa* Swir. type is also found in small numbers.

The high temperature of the lake located in the middle region in the summer season (230-330C), lack of flow, high clarity to the bottom, the abundance of biogenic substances and other factors cause a large number of algae of various types.

Accordingly, on the basis of taxonomic analysis of the species composition of upstream algae, 75 species and species were identified in 37 genera, 19 families, 12 orders, and 9 classes.

1-table

Vodil lake located in the Shakhimardonsoi river basin taxonomic analysis of algoflora

№	Divisions algae	Taxonomic units and their number							
		clas s	order	family	gener a	childbirt h	Variatsi a	types and version s	types and versions %
	<i>Cyanophyta</i>	2	2	2	5	5	-	5	6,66 %
	<i>Bacillariophyta</i>	2	4	9	23	46	13	59	78,67 %
	<i>Euglenophyta</i>	1	1	1	2	2	-	2	2,67 %
	<i>Chlorophyta</i>	4	5	7	7	8	1	9	12 %
	Total: 4	9	12	19	37	61	14	75	100 %

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