



**ALGAE FLORA OF THE FIELDS PLANTED IN ALFALFA**

Sh. A. Tursunova<sup>1</sup>,  
R.D. Zukhriddinova<sup>2</sup>,  
S.T. Mamasoliev<sup>3</sup>

<sup>1</sup>Teacher of the Kokand State Pedagogical Institute, Uzbekistan

<sup>2</sup>Master of Andijan State University, Uzbekistan

<sup>3</sup>Docent of Andijan State University, Uzbekistan

**Annotation:**

It has been hypothesized that algae in bedassore fields soils overlooking agricultural arable fields in the southern sarkhads of the Fergana Valley occur at different depths, different temperatures and conditions with different moisture levels, according to which the number of species in the Cyanophyta section was the highest, followed by the Chlorophyta section algae and The Last by the Xanthophyta section algae.

**Keywords:** Fergana Valley, arable land, bedassore fields, Cyanophyta, Chlorophyta, Xanthophyta, Bacillariophyta

Most of the Fergana Valley area is adapted to the cultivation of agricultural crops, with crop rotation for crop rotation to obtain abundant dressing. In this case, acorns are planted in exchange for wheat crops, mainly legumes. From such crops, more alfalfa is grown. Legumes enrich the earth with nitrogen. Here is the species diversity of algae in the soils of such lands am will be unique.

Winter soil samples were taken on the 5cm surface of the soil at a depth of 50s, 10-12 cm at a depth of 60s, 5.50 s in a layer of 45-50cm, moisture content of 45%. A total of 51 species and algae belonging to species varieties were identified in the aquatic cults of the specimens obtained. They are as follows.

Cyanobacteria division

*Microcystis grevillei*

*Aphanothece costagnei*

*Ph. fonticola*

*G. montana*

*G. turgida f. subnuda*

*Anabaena subtissima*

*A. sphaerica*

*A. variabilis f. rotundospora*

*A. variabilis f. tenuis*

*Cylindrospermum catenatum*

*C. licheniforme*

*C. michailovskoense*

*Tolypothrix tenuis*

*Phormidium autumnale*

*Ph. corium*

*Ph. fragile*

*Ph. laminosum*

*Ph. tenue*

*Ph. incinatum*

*Lyngbya attenuata*

*L. martensiana f. edaphycum*

*L. nigra*

*Schizothrix coriaceae*

*S. lardacea*

*Plectonema boryanum*

*Gloeocapsa minuta*



*Calothrix braunii f. major*

*C. elenkinii*

*Oscillatoria amoena*

*O. terebriiformis*

*Oscillatoria brevis*

*Phormidium ambigum*

Xanthophyta division

*Pleurochlis magna*

*Botrydiopsis eriensis*

*Bumillariopsis brevis*

*Monodus chodatii*

Bacillariophyta division

*Cyclotella kuetzingiana*

*Tabellaria flocculose*

*T. tenestrata*

*Meridian circulare*

*Diatoma vulgare*

*Synedra amphicephala*

*S. famelica*

*S. tenera*

*S. ulna*

*S. ulna var. amphirchynchus*

*Achnanthes linlaris*

*Stauroneis anceps*

*S. smithii*

*Navicula atomus*

*N. bacillum var. elongata*

*N. exigua*

*N. minuscula*

*N. minima*

*N. minima var. atomoides*

*N. muralis*

*N. pupula*

*N. placentula f. robuste*

Chlorophyta division

*Chlamydomonas atoctogama*

*Ch. elliptica*

*Ch. globosa*

*Ch. gloeogoma*

*P. notatum*

*P. purpurea f. edaphica*

*P. puteale f. edaphica*

*Heterothrix baristoliana*

*Tribonema minus*

*T. tenerrimum*

*Navicula seminulim*

*N. radiosa*

*Pinnularia appendiculata*

*P. gibba f. subundulata*

*P. silvatica*

*Pinnularia viridis varifallax*

*Cymbella turgida*

*C. lanceolata*

*C. ventricosa*

*Gomphonema acuminatum*

*Denticula elegans*

*Hantzschia amphioxys*

*H. amphioxys f. capitata*

*Nitzschia amphibia*

*N. fanticola*

*N. kuetzingiana*

*N. lorenziana var. subtilus*

*N. linearis*

*N. microcephala*

*N. vermicularis*

*N. palea*

*Cymetopleura solea*

*Chlorella vulgaris*

*Ankistrodesmus braunii*

*A. convolutus var. minutum*

*A. falcatus f. ferrestris*



*Ch. oblonga*

*Ch. speciosea*

*Chlorococcum humicola*

*Ch. infusionum*

*Dictiococcus mucosus*

*Trachiscia granulata*

*Characium naegilii*

*Ch. ovatum f. tenuis*

*Pratosiphon botryoides*

*Chlorella mucosa*

*Ch. terricola*

*Stichococcus minor*

*S. variabilis*

*Scenedesmus bijugatus*

*S. olicuus var. alternans*

*S. quadricanda*

*Miriella magna*

*Coccomyxa dispar*

*C. solorinae*

*Microspora tumidula*

*Chlorhormidium flaccidum*

*Ch. nitens*

*Ulothrix subtilissima*

*U. variabilis*

Of the soil samples taken during the winter season, 51 species and species of chilli algae were identified. Just above the solution line of the tube wall developed *Gloeocapsa minuta*, *Dictiococcus mucosus*, *Chlorococcus humicola*. Tube wall solution line *Oscillatoria brevis*, *O. amoena*, *Phormidium fragile*, *PH. fonticola*, *Schizothrix coriaceae*, *Plectonema* became a curtain dressing consisting of notatum cells. They are accompanied by *Chlorella vulgaris* from Green chlorococci, *Ch. mucosa*, *Ankistrodesmus falcatus f. ferrestris* et al. In the veil on the surface of the solution, *Anabaena variabilis f. ratundospora*, *A. variabilis f. tenuis*, *A. Sphaerica*, *A. Minutissima*, *Phomidium fragile*, *PH. Purpuracens*, *Plectonema bayanum*, *Protosiphon botryoides*, *Miriella magna*, *Scenedesmus oliquus var. alternans*, *Ankistrodesmus braunii*, *Chlorochormidium niteus*, *Ch.* along with *flassidum* and *Heterothrix bristoliana*, *Synedra tenera* from diatoms, *Navicula atomus*, *N. minuscula*, *N. minima var. atomoides*, *Hantzschia amphioxys*, *Nitzschia amphibia*, *N. palea* and *N. microcephala* was recorded. In the curtain at the base of the flask are *Cylindrospermum michailovskoense*, *Phormidium fonticola*, *Schizothrix coriaceae* and other representatives of chlorococci - *Pratosiphon botryoides*, *Scenedesmus olicuus var. alternans* with them from diatoms *Cyclotella cuetzingioma*, *Synedra tenera*, *Navicula atomus*, *N. minima var. atomoides*, *N. radiosa*, *Pinnularia silvatica*, *Hantzschia amphioxys*, *Nitzschia linearis* and others were encountered. Apart from these, soil samples include *Cyclotella kuetzingiana*, *Diatoma vulgare*, *Synedra tenera*, *Staurogens anceps*, *Navicula atomus*, *N. radiosa*, *Pinnularia sylvatica*, *Denticula elegans* cells were isolated.

In autumn specimens from bedasor fields, *Anabaena variabilis f* from the family *Anabaenaceae*. *rotundospora*, *A. variabilis f. tenuis*, *A. sphaerica*, *A. minutissima*, *Cylindrospermum michailovskoense* and other cyanobacteria - *Oscillatoria brevis*, *Phormidium fragile*, *Ph.* from the order *fonticola* and with them *Chlamydomonas* - *Ch. speciose*, *Ch. globosa*, *Ch. atoctogama*, *Ch. Gloeogoma* developed. Of the diatom algae, *Hantzschia amphioxys*, *Synedra tenera* and *Nitzschia atomus* suffered many others.

The 51 species in the identified winter specimens, 13 species from the species varieties, were identified from soils below the hyacinth layer. Spring soil samples were taken on 19 April at soil level 0-5cm



surface at kharorat 140s, 10-12cm depth at 130s, 45-50cm layer at 12.50 s, 30-35cm depth at soil moisture level 30-32%. Just above the solution in the tube wall are *Phormidium tenue*, *Chlorococcus humicola*, *Ch. infusionum* developed well. Below these, along with those above the solute SATX, are *Microcystis grevillei*, *Gloeocapsa turgida* f. *subnuda*, *G. minuta*, *Plectonema puteale* f. *edaphicum*, *Characterium naegilii*, *Chlorella vulgaris*, *Ch. mucosa*, *Coccomyxa dispar*, *C. solarinae*, *Ankistrodesmus convolutus* var. *minutum* et al. In a veil of algae on the surface of the solution, *Cylindrospermum licheniforme*, *Calothrix elenkinii*, *Phormidium fonticola*, *Lyngbya martensiana* f. *edaphyca*, *Pratosiphon botryoides*, *Dictiococcus mucosus*, *Scenedesmus quadricanda*, *Ankistrodesmus falcatus* f. *ferrestris*, *Chlorhormidium nitens*, *Ch. Navicula minima* var from *flaccidum*, *Bumillariopsis brevis*, *Monodus chodatii* and diatom algae. *atomoides*, *Nitzschia palea*, etc. *Aphanothece costagnei*, *Plectonema boryanum* and some chlorococci - *Dictiococcus mucosus*, *Ankistrodesmus braunii*, *Chlorella vulgaris*, which are characteristic on the surface of the soil, were recorded in some flasks. Together with them, at the base of the flask, the diatom is formed from algae *Cyclotella cuetzingiana*, *Navicula atomus*, *N. bacillum* var. *elongate*, *N. pupula*, *N. radiosa*, *Pinnularia appendiculata* var. *budensis*, *Cymbella lanceolata*, *Hantzschia amphioxys*, *H. amphioxys* f. *capitate*, *Nitzschia amphibia* and *N. palea* developed.

In all flasks with a spring soil sample, *Chlamydomonada* from the category-*Ch. speciosea*, *Ch. elliptica*, *Ch. oblonga* has a smaller stake in some of the *Chlamydomonas globose* and *Ch. gloeogoma* was recorded. Beyond these are *Diatoma vulgare* from the immediate surface of the soil, *Staurotenon anceps*, *Navicula minuscula*, *Pinnularia appendiculata* var. *budensis*, *Cymbella lanceolata* and *Navicula atomus*, *N. bacillum* var. *elongate*, *N. minima* var. *atomoides*, *N. pupula*, *N. radiosa*, *Pinnularia silvatica*, *Denticula elegans*, *Hantzschia amphioxys*, *Nitzschia amphibia*, *N. palea* defined.

In spring specimens from bedazor soil, *Lyngbya martensiana* f from cyanobacteria. *edaphyca*, *Plectonema puteale* f. from *edaphica* green algae *Chlamydomonas elliptica*, *Ch. gloeogoma*, *Chlorococcus humicola*, *Dictiococcus mucosus*, *Characium naegilii*, *Chlorella vulgaris*, *Coccomyxa solarinae* from yellow green algae *Bumillariopsis brevis*, *Monodus chodatii* and diatom algae *Navicula atomus*, *Hantzschia amphioxys* and *H. amphioxys* f. *capitate* developed well.

## REFERENCES

1. Gollerbakh M.M., Shtina E.A. Soil algae. // L.: Nauka, 1969. p 228.
2. Tojiboev Sh.Zh. Algae of virgin soils of the Tashkent region and some biochemical features /Dissertation of Candidate of Biological Sciences. - Tashkent, 1973. - p. 45-46.
3. Mamasoliev S.T. Communication of the environmental assessment of the urban region with soil algae (on the example of Andijan) // Priority directions for the development of science and education, a collection of articles in the international scientific and practical conference held on January 23, 2019. in Penza
4. Mamasoliev S.T., Ibrokhimova G.A., Dekhkanov M.Sh. Height gradient of the phytocoenotic structure of algae groups // Young scientists of Russia collection of articles of the VI All-Russian scientific and practical conference, held on April 7, 2021 in Penza



# Academica Globe: Inderscience Research

ISSN: 2776-1010      Volume 4, Issue 3, Mar., 2023

5. Mamasoliev S.T., Muminova R.N. "Soil algae of the industrial zone (on the example of andijan)," Scientific Bulletin of Namangan State University: Vol. 1 : Iss. 8, Article 12. 2019
6. Tursunova Sh.A. Mamasoliev S.T. Algoflora of typical gray soils for continuous tillage// Epra International Journal of Research and Development (IJRD) Volume: 6 | Issue: 10 | October 2021
7. Mamasoliyev S.T. Types of algae in the soil of the city region (on the example of the Andijan) Science and world International scientific journal, № 12 (64), 2018, Vol. II.