

Resolution
of the VIII All-Russian Scientific Conference with International Participation, "Algae:
Problems of Taxonomy and Ecology, Use in Monitoring and Biotechnology,"
September 7-10, 2026, Listvynaka.

The conference was organized by the Limnological Institute of the Siberian Branch of the Russian Academy of Sciences (Irkutsk), with the participation of the Irkutsk Regional State Universal Scientific Library named after I. I. Molchanov-Sibirsky. The conference was held at the "Pribaikalskaya" tourist center near the settlement of Listvyanka, located 60 km from the city of Irkutsk.

The conference was attended by 162 participants from 6 countries: Russia, the Republic of Belarus, the People's Republic of China, India, Tajikistan, and Mongolia. The participants represented research and educational institutions from 27 cities: Abakan, Apatity, Barnaul, Borok, Vladivostok, Gomel, Irkutsk, Kazan, Kaliningrad, Kerch, Minsk, Moscow, Nizhny Novgorod, Orenburg, Perm, Petrozavodsk, Petropavlovsk-Kamchatsky, Pushchino, Saint-Petersburg, Sevastopol, Syktyvkar, Xiamen, Ulaanbaatar, Ufa, Feodosia, Qingdao, and Yakutsk. Out of the 162 attendees, 38 participated remotely, and 12 were accompanying persons

A total of 66 oral presentations were distributed across several consecutive sessions: 1) Current issues of algology (13 reports); 2) Algal diversity in geographically distant and ecologically diverse waterbodies (4 reports); 3) Phytoplankton in water bodies of different types: species assemblage and indicator properties (8 reports); 4) Cyanobacteria and algae within natural communities: recent findings (14 reports); 5) Life cycle, molecular phylogeny (6 reports); 6) Biotechnological potential and practical applications of cyanobacteria and algae (8 reports); 7) Cultivation of cyanobacteria and microalgae, biologically active substances (6 reports); 8) Modern methods for monitoring the taxonomic diversity of algae. Molecular genetic analysis and metabarcoding (7 reports). Thirty-eight scientists participated in the conference remotely.

Out of the 11 oral presentations delivered by graduate and undergraduate students, the "Best Presentation" diploma was awarded to A. P. Selezneva, a 5th-year student at Lomonosov Moscow State University, for her report titled "Features of the Effect of Different Nitrogen Concentrations in the Nutrient Medium on the Growth, Pigment Composition, and Fatty Acids of Diatom Algae."

36 short oral presentations were delivered across three parallel sections of the poster session, which also included 11 posters by students. The best poster was awarded to M. O. Shchukina, a first-year postgraduate student at Cherepovets State University, for her work titled "River Continuum or Habitat Heterogeneity? A Comparative Analysis of Eukaryotic

Phytoplankton in the Volga River Using Metabarcoding Data.” The poster presentation by E. A. Podunai, a student at Gymnasium No. 5 in Feodosia (Republic of Crimea), was also awarded a diploma for her work titled “Diversity of Algae in Inland Water Bodies of the Republic of Djibouti Based on Comprehensive Morphological and Molecular Genetic Studies.”

During the conference, two roundtable discussions were held: one focused on the achievements of the 2026 All-Russian and international algology conferences, and the other addressed the challenges in the development of Russian scientific journals. In a report by A. N. Kamnev, Editor-in-Chief of the journal *Issues of Modern Algology*, and in a presentation by I. V. Stukolova, Secretary of the journal’s editorial board, potential strategies for improving the journal’s ranking were outlined.

The conference featured research materials on the diversity of algae from freshwater bodies across a wide geographical range — from Yakutia to East Antarctica, including water bodies in southern, subtropical, and tropical regions, as well as marine ecosystems. Most of the presentations focused on water quality, with particular emphasis on toxic cyanobacteria. Current global research trends included studies on symbiotic and algal-bacterial interactions, cyanobacterial and algal viruses, cytological aspects of morphogenesis, and research into the development of the species concept and the evolution of diatom algae. The presented scientific materials are of a high level. Modern research methods are actively used, often in combination. Genetic and phylogenetic studies are used to examine the systematics of microalgae. The identification of new species of cyanobacteria and algae is based on cell morphology and differences in the structure of marker genes. Over the two years since the previous conference, there has been a noticeable increase in studies assessing the taxonomic diversity of algae using metabarcoding. Cultivation experiments help identify optimal conditions for biomass production of cyanobacteria and microalgae, evaluate their biotechnological potential, and even assess their survival under space conditions. Based on the fundamental knowledge obtained, the use of cyanobacteria and algae as producers of biologically active substances is developing, along with their application in agrotechnologies. Many studies were carried out in scientific collaboration between representatives of different research institutions. High engagement of young researchers in scientific work has been noted.

In addition to the scientific programme, the conference participants and accompanying persons took part in educational and scientific excursions with instructors and guides.

At the final session of the conference, **the following decisions were adopted:**

1. The participants noted the high scientific and organizational level of the conference.

2. The Institute of Northern Water Problems of the Karelian Research Centre, Petrozavodsk was chosen as the venue for the 9th All-Russian Scientific Conference with International Participation “Algae: Problems of Taxonomy and Ecology, Use in Monitoring and Biotechnology”.
3. The community of professional Russian algologists – the conference participants, unanimously endorse the decisions of the 11th and 13th Congresses of the Hydrobiological Society under the Russian Academy of Sciences. Drawing on current scientific publications, they emphasize that the so-called “algolization” of water bodies (in particular, the introduction of laboratory-cultivated chlorella strains into natural water bodies to combat cyanobacterial blooms) is not a scientifically recognized or substantiated method. It has not been verified by independent scientific institutions (except for organizations with an apparent conflict of interest) and, in official science, should be regarded as a useless and ineffective practice. Large-scale introduction of microalgae strains into a water body does not eliminate the root cause of eutrophication and poses serious sanitary and ecological risks. The subsequent inevitable die-off of the introduced chlorella biomass leads to the accumulation of undecomposed organic matter on the bottom of the water body. This may provoke oxygen deficiency near the bottom and, due to the return of nutrients to the cycle, could contribute to even more intense blooms of toxic cyanobacteria in the following years.
4. It is proposed to consider the establishment of a Russian or Interregional Algological Society to consolidate efforts in conducting joint research and to develop expert opinions on issues of aquatic ecology.
5. It was noted the need to publish modern identification atlases of algae in Russian.
6. The Organizing Committee expresses its gratitude to the members of the Programme Committee for their active and fruitful work in compiling the conference programme and reviewing the submitted materials.
7. The Organizing Committee thanks the Baikal Museum of the Siberian Branch of the Russian Academy of Sciences, “Siblabservice”, “EN+”, Sberbank of Russia, the Baikal Seal Aquarium, “Zapovednoe Pribaikalye”, “LEGEND of BAIKAL”, and the Duma of the Irkutsk Municipal District for their assistance in organizing the conference.