



Botany, Algology and Mycology Research Group

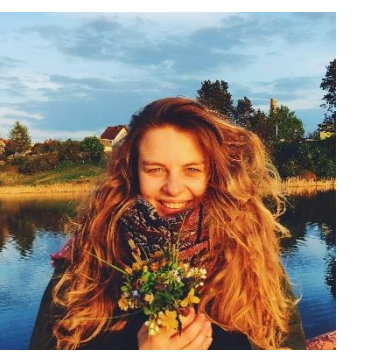
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Historical background

Botanical and mycological scientific investigations started at the Department of Natural History of Vilnius University in the end of 18th century. J.E. Gilibert (1781), S.B. Jundził (1791, 1811) and J. Jundził (1830) published the first scientific works in which Lithuanian plants, fungi and lichen species were listed. Later on, plant and fungal biodiversity was studied by botanists and mycologists from the Departments of General Botany and Plant Systematics and Plant Geography (1919–1939), the Department of Botany (1940–1972), and the Department of Botany and Genetics (since 1972). Currently, the Botany, Algology and Mycology Research Group is involved in teaching and mentoring students, as well as in pursuing research.



Members of the group and PhD students (2023)

Content of research

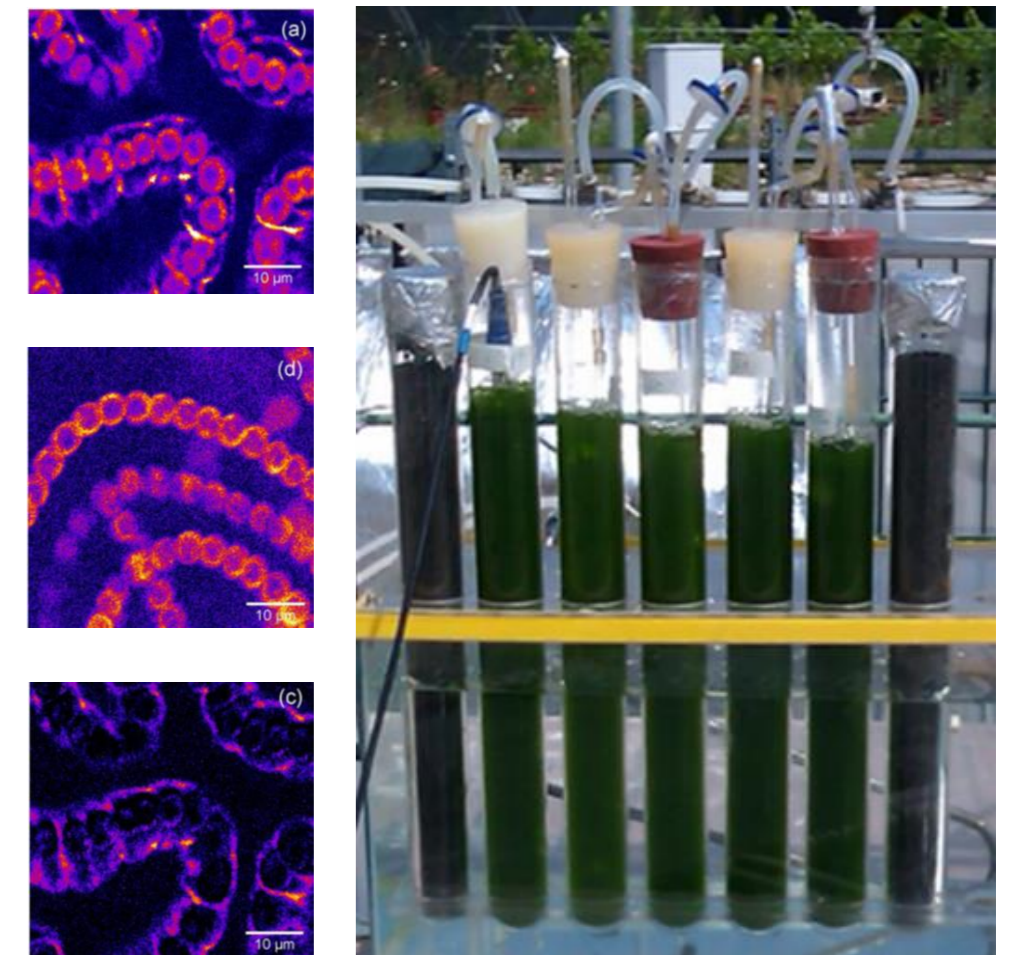
1. Species diversity, distribution, biology, ecophysiology, ecology of plants, algae, fungi and lichens:

- ❖ Species systematics, biodiversity and ecology, community status and change.
- ❖ Biology and ecology of protected and endangered, non-native and invasive species.
- ❖ Structure, ecophysiology and genetic diversity of lycopod populations.

2. Algal biotechnology:

- ❖ Application of algal biotechnology for wastewater treatment.
- ❖ Influence of environmental factors and medium composition on algal biomass growth and biochemical composition.

3. Research of VU Herbarium collections and the history of botany in Lithuania.



Offer

We offer our expertise and professional skills related to identification and characterisation of plant, algal and fungal species, plant communities, habitats, as well to statistical data analysis.

Key research equipment

- ❖ Light microscopes with image documentation systems, microtome.
- ❖ Laboratory for cultivation and study of organism cultures (laminar, incubation cabinets, drying and sterilization equipment, centrifuge).
- ❖ Herbarium specimen preparation (dryers, deep freezer, etc.) and storage (climate-controlled room, mobile and stationary storage cabinets, etc.) equipment.



Research methods

Observation in nature, light and scanning electron microscopy, identification of organisms, culture and experiments of algae and fungi, methods of molecular biology and plant physiology, ethnobotany and ethnomycology, historiography of botany.

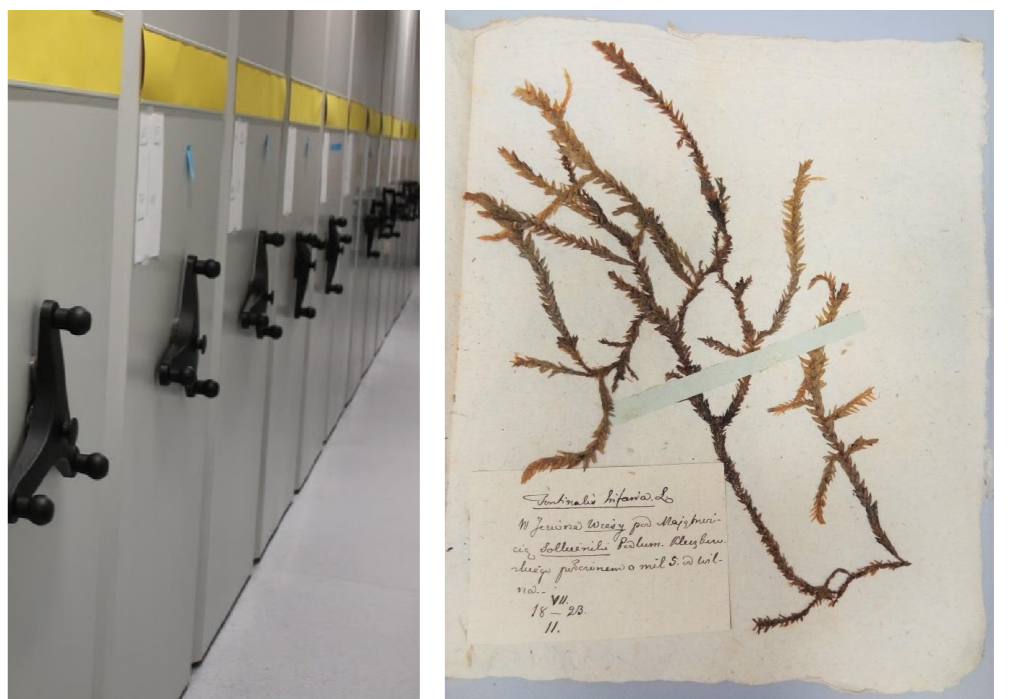


Partnership

The group is open for cooperation, our main research partners are from Vilnius University, Nature Research Center (Vilnius), Vytautas Magnus University, Lithuanian Research centre for Agriculture and Forestry, University of Greifswald, and Tartu University.

Achievements

Published books, textbooks and articles in international journals with impact factors: *Acta Societatis Botanicorum Poloniae*, *American Fern Journal*, *European Journal of Forest Research*, *Biologia*, *Forests*, *Fungal Ecology*, *Geoderma*, *Herzogia*, *Journal of Fungi*, *Journal of Raman Spectroscopy*, *Israel Journal of Plant Sciences*, *Molecular Phylogenetics and Evolution*, *Mycotaxon*, *Nanomaterials*, *Nova Hedwigia*, *Plants*, and *Polish Journal of Ecology*.

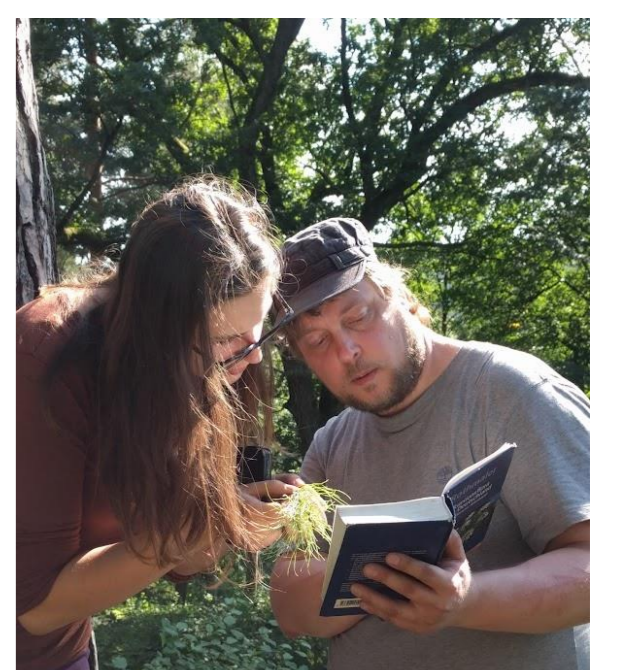
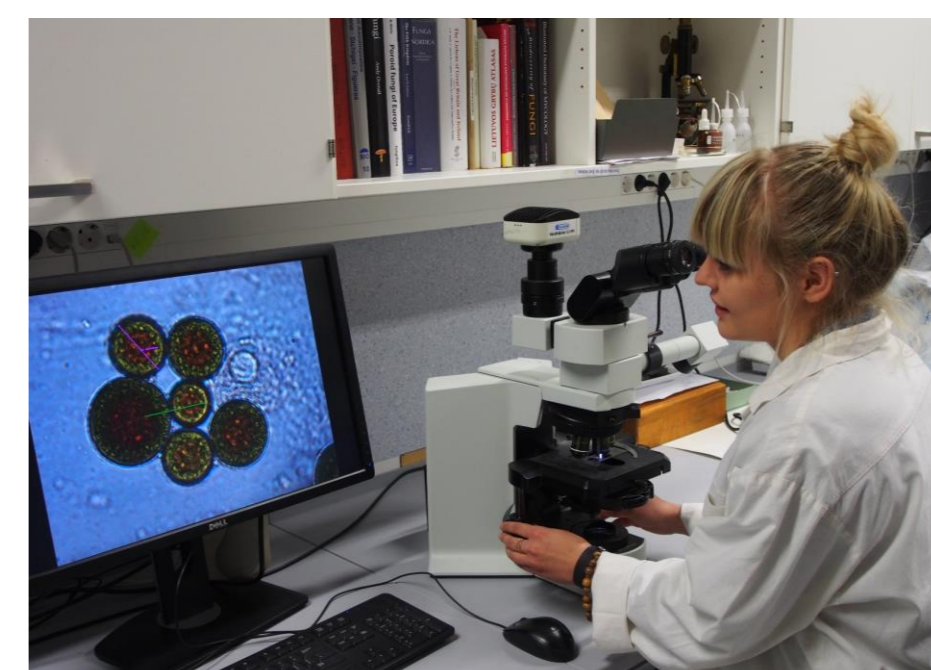


Herbarium and Botanical museum

Vilnius University Herbarium (acronym WI) is one of the oldest herbariums in Eastern Europe (the oldest plant specimens were collected in 1816), now it stores about 300 000 specimens of plants, algae and fungi. Botanical museum expose documents, exhibits and rarities, which tell about the history of botanical research, as well as about famous botanists and mycologists.

Teaching

Members of the group teach graduate and postgraduate courses in plant sciences, algology and mycology. We give lectures and seminars, conduct laboratory and practical classes, supervise and advise the students for writing bachelor, master and PhD theses.



Promoting botany, algology and mycology

We give media podcast, radio and TV interviews, publish science popularization articles, organize exhibitions, conduct educational excursions and laboratory classes for children and adults, participate in public education events, advise on the identification of plants and fungi.

