Laima Liulevičius

15-46 Rue Perreault Est, Rouyn-Noranda, Québec
(612)300-9183 • liul01@uqat.ca

EDUCATION

MSc in Ecology and Management of Forest Ecosystems Expected Spring 2026
Université du Québec en Abitibi-Témiscamingue

Proposed thesis title: "Brine spills in the arctic tundra: impacts on vegetation communities and recovery potential of lichens and bryophytes"
Advisor: Nicole Fenton; *Co-Advisor:* Katherine Stewart

BSc in Plant and Microbial Biology, *summa cum laude* Spring 2024
University of Minnesota, Twin Cities

Honors thesis title: "Lichens facilitate the revegetation of iron ore tailings through microclimate amelioration"
Advisor: Daniel Stanton

RESEARCH INTERESTS

Lichenology, restoration ecology, succession dynamics, mining impacts, arctic ecology

RESEARCH EXPERIENCE

Université du Québec en Abitibi-Témiscamingue

How can arctic vegetation recover after salt pollution from mining? Summer 2025 - Ongoing
Master's thesis project, mentored by Prof. Nicole Fenton

- Performed surveys of tundra impacted by drilling brine spills at the Hope Bay mine in Nunavut, while working with an industry partner.
- Adapted my existing vegetation survey skills to a new biome, and learned to identify arctic flora, including lichens and bryophytes
- Performed multivariate analysis on vegetation community data.
- Designed laboratory and greenhouse experiments to assess the regeneration of arctic bryophytes after fragmentation on saline media.
- Poster presentation at CBA, St. John's 2025

How does the boreal forest recover after high-severity fire? Summer 2024 - 2025
Graduate assistant with Prof. Nicole Fenton and Prof. Mélanie Jean

- Established permanent plots to monitor post-fire vegetation recovery in the James Bay region of Québec.
- Learned to estimate pre-fire stand structure and burn depth.

Are boreal lakeshore trails a hotspot for *Peltigera* lichen biodiversity? Summers 2024-2025
Graduate researcher with Prof. Nicole Fenton

- Performed surveys of *Peltigera* lichen diversity along lake trails in the Abitibi region.
- Received approval to do research in a provincial park

University of Minnesota

How diverse are lichens communities under urban stressors? Spring 2024
Research Assistant with Dr. Natalia Koch

- Conducted surveys of urban tree lichen communities across twin cities metro area
- Utilized standardized "European method" for assessing lichen diversity in response to pollution and other urban stressors.
- Assisted in lichen identification.

What role do lichens play in revegetating iron ore mine tailings? 2023-2024
Honors Thesis Project, mentored by Dr. Daniel Stanton and Mariana Cardenas, PhD candidate

- Received approval to do research on state park land
- Designed and established field experiment manipulating lichen cover conditions to determine the effect of lichens on soil temperature, water stress for saplings, and nutrient availability.
- Designed a complementary greenhouse experiment to further investigate water relations in the study system
- Performed colorimetric nutrient concentration assays
- Publication in review for *Restoration Ecology.*

Do transplanted lichens swap their photobionts in response to stress? Spring 2023
Independent research project mentored by Dr. Natalia Koch and Abigail Meyer, PhD candidate

- Received funding from the university's UROP program to complete this project.
- Extracted and analyzed the algal ITS sequences from *Flavoparmelia caperata* lichens transplanted into an urban area
- Used QIIME2 pipeline to analyze raw sequencing data
- Poster Presentation at ESA, Portland 2023

How does the composition of photobionts change in a boreal lichen in response to warming?

Research assistant with Abigail Meyer, PhD candidate Spring 2022

- Performed DNA extraction, PCR, and DNA library preparation for amplicon sequencing of ITS sequences of *Trebouxia* algae from *Evernia mesomorpha* in the SPRUCE experiment.
- Publication in *American Journal of Botany.*

What are patterns in the succession of lichens and bryophytes in abandoned fields? Summer 2021

Field Ecology REU at Cedar Creek mentored by Mariana Cardenas, PhD candidate

- Performed field surveys of lichens and bryophytes across a secondary successional gradient of old abandoned agricultural fields.
- Learned lichen and bryophyte identification techniques.
- Presentation at Cedar Creek Research Symposium.

INTERNSHIPS

Cloquet Forestry Center Summer 2022, 2023

B4WARMED (Boreal Forest Warming at an Ecotone in Danger) Project Intern

- Performed weekly assessments of tree phenology across experimental treatments.
- Became skilled at using LI-6400 to collect photosynthesis, respiration, and chlorophyll fluorescence data on saplings.

Cedar Creek LTER

BioCON project field crew member. Summer 2021

- Learned vegetation survey and soil sample processing techniques

TEACHING AND MENTORING EXPERIENCE

Graduate Mentor Summer 2024, 2025

Université du Québec, laboratoire de bryologie

- Teaching vegetation survey techniques and lichen ecology to undergraduate summer interns

Undergraduate TA Spring 2023

Foundations of Biology II Lab: Global Change Ecology

University of Minnesota

- Assisted graduate TA during lab course.

- Helped students troubleshoot data analysis in JMP software.

PUBLICATIONS

Peer-Reviewed Journals

Koch, N., **Liulevičius, L.,** Nilles, A., Meyer, A., Stanton, D. Photobiont turnover and lichen ecophysiology in an urban environment. *Ecology Letters.* In Preparation.

Liulevičius, L., Cardénas, M., Stanton, D. (2025). Microclimate Engineers: How lichen cover impacts soil temperature, moisture, and nutrient availability on mine tailings. *Restoration Ecology.* e70775. https://doi.org/10.1111/rec.70225

Meyer, A. R., Valentin, M., **Liulevičius, L.,** McDonald, T. R., Nelsen, M. P., Pengra, J., Smith, R. J., & Stanton, D. (2023). Climate warming causes photobiont degradation and carbon starvation in a boreal climate sentinel lichen. *American journal of botany*, *110*(2), e16114. https://doi.org/10.1002/ajb2.16114

Science Communication Journal

Liulevičius, L. Fenton, N. (Printemps, 2025). Résurrection dans l'Arctique. *Le Couvert Boréal 22*(2)

CONFERENCE PRESENTATIONS

Poster Presentations

Liulevičius, L. Fenton, N., Stewart, K. (2025, June). *Evaluating the potential of bryophytes for restoration of brine-disturbed tundra.* CBA (Canadian Botanical Association) Annual Conference, St. Johns, NL.

Liulevičius, L. Cardénas, M., Stanton, D. (2024, April). *Lichens Reduce Heat and Water Stress for Jack Pines Growing on Mine Tailings.* Undergraduate Research Symposium, Minneapolis, MN.

Liulevičius, L. Koch, N., Meyer, A., Stanton, D. (2023, August). *Capturing Photobiont Turnover in Lichens Transplanted to Challenging Environments.* ESA (Ecological Society of America) Conference, Portland, OR.

Oral Presentation

Liulevičius, L. Cardénas, M., Stanton, D. (2021, August). *How does the diversity of terricolous bryophyte, cyanobacteria, and lichen communities change across a chronosequence of abandoned agricultural fields?* Cedar Creek Undergraduate Research Symposium, East Bethel, MN.

HONORS AND AWARDS

CBA Taylor award for best proposal poster	2025
UMN Eloise Newcomb Pittman Memorial scholarship	2024
UMN Goldwater Scholarship Nominee	2023
UMN Presidential scholarship	2020-2024

TECHNICAL SKILLS

Programming languages: R, experience with python, QIIME2
Software: ArcGIS, JMP

LANGUAGES

Lithuanian (native)
English (native)
French (proficient)

REFERENCES

Professor Daniel Stanton
Department of Ecology, Evolution, and Behavior
University of Minnesota
1987 Upper Buford Cir.
St. Paul, MN
stan0477@umn.edu

Professor Nicole Fenton
Institute de rechereche sur les forets
Université du Québec en Abitibi-Témiscamingue
445 Boul. de Université
Rouyn-Noranda, QC
nicole.fenton@uqat.ca

Dr. Natalia Koch
Department of Ecology, Evolution, and Behavior
University of Minnesota
1987 Upper Buford Cir.
St. Paul, MN
nkoch@umn.edu