



# UVic Forest Biology Update

Summer 2025

## Summer 2025 FORB Convocation!

Congratulations to Dr. Sarah Lane (PhD) and Daisuke Yamakawa (MSc). Sarah's topic was "Using iron deficiency stress in plants as a tool for discovery of novel iron chelators for human use" and Daisuke's topic was "Proanthocyanidins in Poplar Roots - Effects on Mycorrhizal Colonization and Nitrogen Uptake." Congratulations also to all the FORB undergraduate students convocating this term. Pictured below are: Dr. C. Peter Constabel, Daisuke Yamakawa, Dr. Barbara Hawkins, Dr. Juergen Ehling, Dr. Sarah Lane, Dr. Patrick Walter, Liberty Evans-Agnew, Georgia Derby, Olivia Osborne and David Furlonger.



## Science Rendezvous 2025 was a success!

Science Rendezvous 2025 was a success! There was a Biology room with a large selection of live animals & plants, matching games & pipetting stations. It would not have been possible without the amazing help of so many volunteers & participants!

Photos by Dr. Barbara Ehling





## Promotion Congratulations to Dr. Ehltling!

A big congratulations to our Director, Dr. Juergen Ehltling on his promotion to Full Professor in the Department of Biology! Very well deserved!



## Retirement Congratulations to

### Dr. Patrick von Aderkas!

A big congratulations to Dr. Patrick von Aderkas on his retirement! Wishing him relaxation, enjoyment and lots of time out in the garden!



## New FORB Members



**David Furlonger**  
Dr. Perlman  
MSc



**James Moran**  
Drs.  
Ghoshal/Ehltling  
MSc



**Nadja Burkart**  
Dr. Ehltling  
Research Assistant



**Anna Lewis**  
Drs.  
Perlman/Ehltling/Ghoshal  
Research Assistant



**Yiyang Duan**  
Dr. Constabel  
Research Assistant



**Neelam Esmail**  
Dr. Ehltling/Dr.  
Lewis  
Research Assistant



**Randi Church**  
Dr. Ehltling  
Research Assistant



**Benjamin Blake**  
Dr. Ehltling  
Research Assistant



**Solène Boisclair-Joly**  
Dr. Constabel  
Directed Study





## Recent Publications

Strachan, K., and von Aderkas, P. 2025. **Conservation Challenges for Seaside Juniper, *Juniperus maritima*, a Dioecious Conifer Endemic to the Salish Sea.** *Tree Seed Working Group News Bulletin*.

[https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/forestry/tree-seed/tree-seed-centre/tswg-bulletins/tswg\\_76\\_march25.pdf](https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/forestry/tree-seed/tree-seed-centre/tswg-bulletins/tswg_76_march25.pdf)

Creasy, E., Hawkins, B.J., Robbins, S., and von Aderkas, P. 2025. **Sex Differences in Nitrogen Flux in Fern Gametophytes.** *Botany*, 103: 1-7. <https://doi.org/10.1139/cjb-2024-0150>

Rianhard, O.M., Kranabetter, J.M., Penkova, L.V., Durall, D.M., and Jones, M.D. 2025. **Ectomycorrhizal fungal community succession and fragmentation across forest edges nearly three decades postharvest.** *Plants, People, Planet*, 1-14. <http://dx.doi.org/10.1002/ppp3.70008>

Robson, B., Brown, K.J., Trofymow, J.A., and Roy, R. 2025. **Charcoal carbon pools and their persistence in boreal forest soils, Northwest Territories, Canada.** *Canadian Journal of Forest Research*, 55: 1-12. <https://doi.org/10.1139/cjfr-2024-0178>

Piirtola, E-M., Ma, D., Ehling, J., and Constabel, C.P. 2025. **A dihydrochalcone-specific O-methyltransferase from leaf buds of *Populus trichocarpa* implicated in bud resin formation.** *Journal of Experimental Botany*, Vol. 76, Issue 8: 2129-2143. <https://doi.org/10.1093/jxb/eraf020>

## 2025 Ice Bucket Challenge for Mental Health

Dr. Doug Briant (Biology Chair), Dr. Barbara Ehling (Biology Faculty Member), and our FORB Faculty Member, Dr. C. Peter Constabel participated in the 2025 Ice Bucket Challenge for Mental Health! The participants nominated: The UVic Biology Co-op Office, The University of Victoria President Dr. Kevin Hall, and The UVic Biochemistry Department!



## Summer Student Research Update

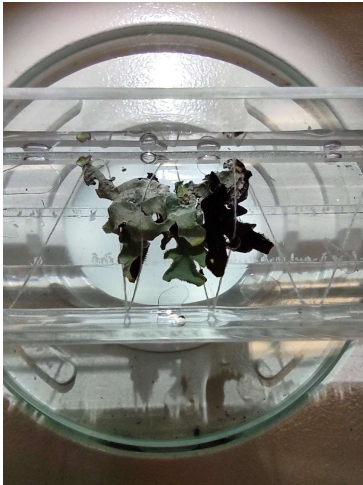
Anna Lewis is a summer undergraduate co-op student working on a new research collaboration between Dr. Steve Perlman and Dr. Juergen Ehling's labs in the Centre for Forest Biology and the labs of Dr. Basudev Ghoshal (Agriculture and Agri-Food Canada) and Dr. Yahya Gaafar (Canadian Food Inspection Agency), molecular plant virologists at the Centre for Plant Health.

Anna is studying blueberry aphids. These insect pests are of concern because they transmit plant viruses such as Blueberry scorch virus. Anna is surveying the blueberry aphid microbiome to find out whether aphids host symbiotic bacteria that affect their ability to vector viruses.

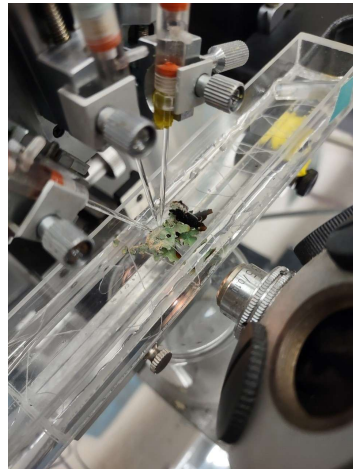


## Hungry Lichens!

Lichens are a symbiotic partnership of two separate organisms from two different Kingdoms - a fungus and an alga. The alga photosynthesizes & provides carbohydrates for the fungus, & the fungus provides a home for the alga. To build the lichen thallus, other nutrients are needed ... particularly nitrogen to build proteins, but the lichen has no roots, stems or leaves. How does it get its nutrients? Samantha Robbins in Dr. Hawkins lab is testing how lichens take up nitrogen over their surface, using ion-selective micro electrodes. The exciting news is that uptake rates appear much higher than uptake by plant roots!!



Thallus of *Parmelia sulcata* prepared for measurements of ion flux (~ 3 cm long)



Ion-selective microelectrodes positioned above the lichen thallus prepared to measure ammonium, nitrate and proton fluxes.



Close-up of lichen thallus showing the three ion-selective microelectrodes positioned next to the ventral surface of the lichen ready to measure ion flux



Close-up of the dorsal (green) and ventral (black) surfaces of the thallus of *Parmelia sulcata*

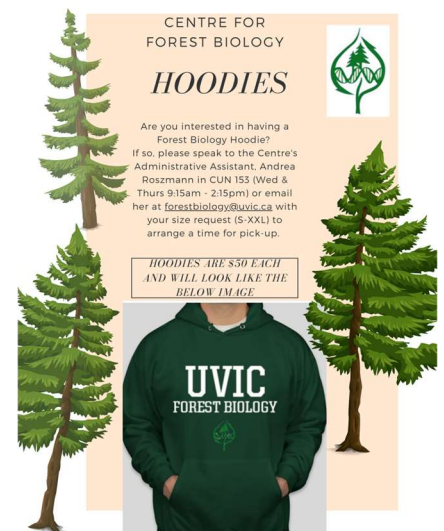
## Coastal Climate Solution Leadership Program

Congratulations to FORB MSc Student, Latina Penkova on her acceptance into the Uvic Coastal Climate Solutions Leadership Program! She, and other trainees from across campus, will be working together to advance climate solutions! For more information please see their website: <https://coastalclimatesolutionsleaders.org/>



## FORB Hoodies!

FORB Hoodies are still for sale at \$50 each. If you would like one please pop by the FORB Office (CUN 153) with cash and pick one up! Office hours are Wed or Thurs 9:30am – 2:00pm



Compiled by Andrea Roszmann,  
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