

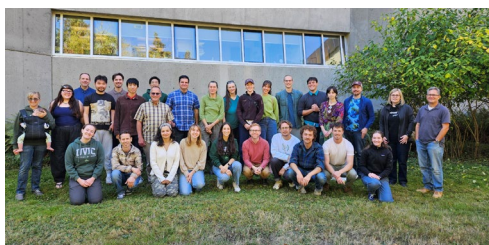


# UVic Forest Biology Update

Fall 2026

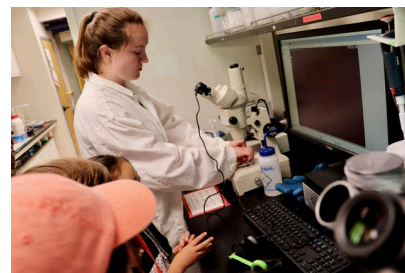
## September 2026 Welcome Lunch!

On September 17, 2026 we gathered together for our annual Fall Welcome lunch to meet our new lab members and celebrate the academic year ahead.



## Science Venture Lab Tours

On July 23 the Ehltig Lab provided a lab tour to some of the Science Venture summer camp participants - It was a resounding success!



## Canadian Phytopathological Society - Congratulations

This past summer Sydney Houston, an MSc student in the Constabel Lab, entered an Infographic Contest through the Canadian Phytopathological Society - she won Second Place! Well done, Sydney, fantastic work!

# **WESTERN WHITE PINE & BLISTER RUST**

*Using DNA to protect Canada's five-needle pines*

### **Problem**

White pine blister rust, caused by the fungus *Cronartium ribicola*, spreads across Canada and infects five-needle pines, causing **up to 95% tree mortality** in affected forests

### **Why this matters**

Five-needle pines are **highly vulnerable**, allowing the disease to spread widely and persist for decades. **Resistant trees are rare**, so **rapid identification is critical** for restoration.

### **Solution**

Rather than waiting years for resistance testing, researchers can use **DNA markers linked to the Cr2 gene to identify resistant trees faster**

**RESISTANT**



**SUSCEPTIBLE**

For more information check out this paper!

Liu et al., 2020. Can. J. Plant Pathol. 42: 250-259.  
doi:10.1080/07060661.2019.1638454

### **Discovery**

DNA markers **accurately identified resistant and susceptible trees** across British Columbia, with **over 99% agreement** between methods and **100% accuracy for one marker**

### **Future direction**

**DNA testing** quickly identifies **blister rust resistance**, speeding up **restoration and breeding** of resistant five-needle pines. Future work will combine **multiple resistance traits** for **longer-lasting protection**.

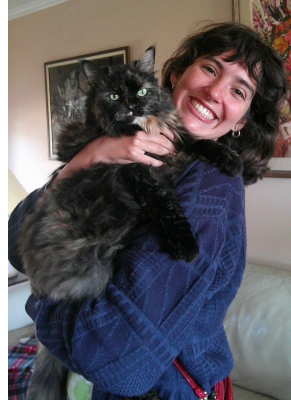
## New FORB Members



**Randi Church**  
Dr. Ehling  
MSc



**Michaela Onasick**  
Dr. Ehling  
MSc



**Jane Douglas**  
Dr. Ehling  
MSc



**Gemma Tomberli**  
Dr. Hawkins  
Research Assistant



**Owen Unger**  
Dr. Hawkins  
Directed Study



**Shreya Mohan**  
Dr. Constabel  
Research Assistant



**Dr. Kanata Ichiishi**  
Dr. Perlman  
Postdoc



**Maximillian Hannah**  
Dr. Hawkins  
Directed Study



**Anna Venczel**  
Dr. Ehling  
Directed Study



**Parsa Khakpour**  
Dr. Ehling  
Directed Study



**Katherine Smith**  
Dr. Hawkins  
Directed Study



**Belén Reed**  
Dr. Perlman  
Research Assistant

## 13<sup>th</sup> International Conference on Mycorrhiza!

I was so extremely lucky to have the opportunity to present my Master's research at the 13th International Conference on Mycorrhiza (ICOM) in Cairns, Australia! 🍄🌿 My research focuses on ectomycorrhizal fungi, which are symbiotic fungi that form associations with the roots of many tree species, and the genes they carry in their genetic arsenal. In particular, I'm interested in the enzymes these fungi can use to break down complex compounds in forest soils, such as lignin, and what this might tell us about their role in decomposition and nutrient cycling. Ultimately, my goal is to characterize the key fungal species driving these processes in coastal forests! ICOM is the premier international conference dedicated to mycorrhizal research, and it was absolutely marvelous to share my work, discuss ideas with leading researchers in the field, and meet so many fellow colonized-root lovers from around the world. I was also beyond lucky to experience a little bit of tropical Australia along the way: wandering through the Cairns Botanic Gardens, frolicking around mangroves, looking at funky birds, finding spiders far too big for comfort, and even squeezing in a quick dive on the Great Barrier Reef! 🐙🕷️🌴 An unforgettable conference, and an experience I'm incredibly grateful to have had!



*Submitted by MSC Student Latina Penkova*

### Recent Publications

Jassey, V., Lafont Rapnouil, T., Le Geay, M., et al (including **Lacourse, T.**) 2026. Tipping Points in Bacterial Richness Amplify Extracellular Enzyme Activities in Northern Peatlands. *Global Change Biology* 32, no. 9: e71099.

<https://doi.org/10.1111/gcb.71099>

Compiled by Andrea Roszmann,  
Administrative Assistant, FORB

### FORB Hoodies!

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

