



# UVic Forest Biology Update

Spring 2024

## The Hawkins Lab Update



Daisuke Yamakawa's MSc project focuses on 'mycorrhizal fungi' and 'tannins'. Tannins are generally recognized as antimicrobial and anti-fungal compounds, while mycorrhizal fungi are known for their benefits to plants as they provide nutrients. Currently, he is studying poplar plants to investigate whether tannins in roots inhibit beneficial mycorrhizal colonization.



February 29, 2024

## Honours Fest Award

### Winner – Em Creasy!

Em Creasy won the Canadian Botanical Association/ L'association Botanique du Canada's Undergrad Award for Best Plant-related Presentation at this year's Faculty of Science Honours Fest that took place on Feb 29, 2024. Their presentation was titled 'Ammonium and nitrate fluxes in male v female/hermaphroditic *Polystichum munitum* gametophytes. Em is a student in the Hawkins and von Aderkas labs. In 2020/2021 FORB student Taylor Holt also won this award! Congrats, Em!



Compiled by Andrea Roszmann,  
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Forest Biology

## Successful PhD defense!

Congratulations Eerik Piirtola on his successful PhD defense! His topic was 'Chemistry and biochemistry of *Populus* leaf bud resin'.



## Mighty Large Leaves!

Sometimes falling leaves are larger than expected. In December 2023 Dr. Constabel found this wonderfully large poplar leaf on the ground during a morning run. That is a men's size 12 shoe for comparison!



## New FORB Members



**Jennifer Rodriguez**  
Dr's Hawkins/Lacourse  
Research Assistant



**Addison Kits**  
Dr's de la Bastide/Ehltling  
Directed Study



**Magali Holt-Lachance**  
Dr. Constabel  
Research Assistant



**Simar Bennypaul**  
Dr. von Aderkas  
Research Assistant



**Zack Fenniri**  
Dr's. Ehltling/Walter  
Honours Student

## Von Aderkas/Hawkins Fieldtrip to Yellow Point and Shoal Island

On Monday, February 22, Barbara Hawkins, Kailey Strachan and Patrick von Aderkas went on a field trip with the lovely Don Pigott to Yellow Point and Shoal Island to look at seaside juniper, a species endemic to the Salish Sea.



## Von Aderkas Lab

Colourized scanning electron micrograph of sperm of swordfern (*Polystichum munitum*) done by the Swiss artist Martin Oeggerli using photos by Patrick von Aderkas, Elaine Humphry and Brent Gowen. The spiral-shaped male gamete (nucleus in blue with orange flecks) swims through the water driven by whip-like flagellae (multi-coloured).



## Recent Publications

Berch, Shannon, and de la Bastide, Paul. 2023. **The story of Coastal Douglas-fir forests: All about fungi.** *Raincoast Conservation Foundation*. <https://www.raincoast.org/2023/11/coastal-douglas-fir-forests-fungi/>

Aldana, Juan, Moa Belaid, Mattsson, Jim, Russell, John H., Hawkins, Barbara. 2024. **Histological, chemical and gene expression differences between western redcedar seedlings resistant and susceptible to cedar leaf blight.** *Frontiers in Plant Science (Plant Pathogen Interactions)*. <https://doi.org/10.3389/fpls.2024.1309762>

Sayed, S.S., et al. (+106 co-authors including Lacourse, T.). 2024. **Assessing changes in global fire regimes.** *Fire Ecology* 20:18. <https://doi.org/10.1186/s42408-023-00237-9>

Cowan, M., C.M. Pearce, T. Green, T. Finston, G. Meyer, B. McAmmond, J. Van Hamme, E. Bottos, R. Marshall, W. Evans and T. Sutherland, P.Y. de la Bastide. 2024. **Abundance of *Vibrio aestuarianus*, water temperature, and stocking density are associated with summer mortality of Pacific oysters in suspended culture.** *Aquaculture International* (Accepted for publication). <https://doi.org/10.1007/s10499-024-01415-5>