

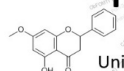


# UVic Forest Biology Update

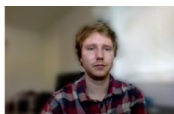
Summer 2021

## International Congress on Polyphenols 'Best Poster'!

### Chemistry and biochemistry of leaf bud resin in *Populus*



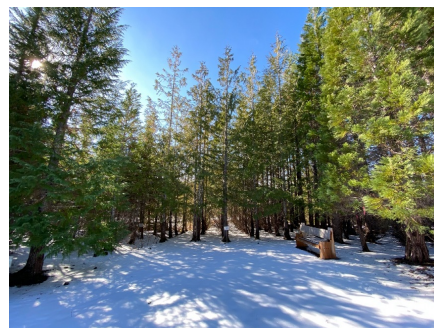
Eerik Piirtola  
University of Victoria, Constabel lab



Congratulations to Eerik Piirtola (in the Constabel Lab) on winning Best Poster in the topic of "Biogenesis and Function in Plants and Ecosystems," at the International Congress on Polyphenols this July!

Eerik also successfully completed his Candidacy Exam this summer!

## Successful examination of BSc thesis!



Congratulations to Frida Vick who has passed the examination of her BSc thesis at the University of Copenhagen with flying colours. The thesis was undertaken at the UVic Centre for Forest Biology and was titled "A study of cold hardiness of 16 species in the Cupressaceae family from January to April, 2021".

## Recent Publications

von Aderkas, P., Prior, N., Little, S. A., Holt, T., Creasy E., Whitehill J., King J., Kong, K. 2021. Somatic embryogenesis of weevil resistant phenotypes of Sitka spruce, *Picea sitchensis*. *Propagation of Ornamental Plants* 21: 27-40.

Kong, L., Jaquish, B., Zaharia, I., von Aderkas, P. 2021. Phytohormone profiles of sterile Douglas-fir mutants and the responses to stem-injected gibberellins. *Trees – Structure and Function*. [doi.org/10.1007/s00468-021-02163-2](https://doi.org/10.1007/s00468-021-02163-2)

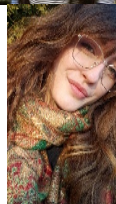
Hawkins, B., McKeown, K., Bayne, J., van der Merwe, L., and Robbins, S. 2021. Contrasting root and shoot cold tolerance of a conifer with indeterminate growth. *Canadian Journal of Forest Research*. <https://doi.org/10.1139/cjfr-2021-0073> (Note: the combined efforts of two BIOL 490J students, one MSc student, and one research associate!)

## New FORB Members

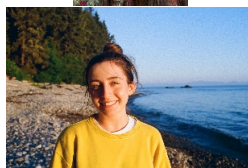
Sarah Keshvani      Dr. Jürgen Ehlting      Research Assistant



Koa Planedin      Dr. Jürgen Ehlting      Research Assistant



Emma Hayward      Dr. Will Hintz and Dr. Paul de la Bastide      Research Assistant



Claire McPolin      Dr. Barbara Hawkins      Research Assistant

Megan Loland      Dr. C. Peter Constabel      Research Assistant

Connor Connolly-Moyls      Dr. Jürgen Ehlting      Research Assistant



## Update from the von Aderkas Lab

The von Aderkas lab has recently had a new paper published. The paper, "Phytohormone profiles of sterile Douglas-fir mutants and the responses to stem-injected gibberellins. Trees – Structure and Function" is about some very odd Douglas-fir trees that were incapable of reproduction. One was derived from a famous tree nicknamed affectionately the Broccoli Tree, because of its uncanny vegetable form (see picture). In collaboration with Barry Jaquish, a breeder at the Kalamalka Research Station of the BC Ministry of Forests Lands Resource Operations and Rural Development, and Irina Zaharia of the National Research Council in Saskatoon, Lisheng Kong and Dr. von Aderkas worked out the endogenous hormone profiles that controlled elements of reproduction, which they altered by applying exogenous plant growth regulators in a study of regulation of male and female cone induction.



Compiled by Andrea Roszmann, Administrative Assistant, Centre for Forest Biology

## Fantastic Flavonoids

Dr. C. Peter Constabel gave an invited lecture for the Ragai Ibrahim Symposium at the Canadian Society of Plant Biologists Annual Meeting on June 9th. His lecture was called: "Fantastic Flavonoids - from Enzymes to Transcription Factors and Back Again" Dr. Ibrahim was one of Canada's premier plant biochemists, who trained many students and did ground-breaking work on the enzymes which modify flavonoids.

## CForB collaboration on Swiss Needle Cast

Working together to increase resilience of our forests in times of climate change - Drs. Jürgen Ehrling and Paul de la Bastide teamed up with NRCan's Pacific Forestry Centre (Dr. Joey Tanney) & the BC Ministry of Forests (Dr. Jon Degner) collected material from 600 Douglas-fir trees to screen for & understand tolerance to Swiss Needle Cast, a fungal disease of growing concern in BC. This is a very timely effort because a very severe needle cast, with lots of the SNC fungus present, is happening right now on central Vancouver Island.



Robert Kowbel (PCF), Paul de la Bastide (CForB) and Keith Bird (FLNRORD) after a long day in the woods.



Emma Hayward and Connor Connolly-Moyles (UVic summer student) assessing trees for SNC severity.



Joey Tanney (PFC) enjoying a rest on the leftover branches after sampling.



Severe needle cast on a young Douglas-fir near Cumberland, where only this year's needles remain alive; the inset shows fungal fruiting bodies in the stomata of a dying needle.