

THE DEPT OF FORESTRY & NATURAL RESOURCES PRESENTS

FALL 2025 SEMINAR SERIES

MONDAY, SEPTEMBER 22ND
WSLR 116 3:30 PM - 4:30 PM

JOIN US FOR A LECTURE AND CONVERSATION WITH

DR. AL KOVALESKI

Are Winters a Potential Problem for Trees in a Warmer Future?



Al Kovaleski studies how woody perennial plants coordinate dormancy and cold hardiness to survive warming winters.

The survival of woody perennial plants in temperate and boreal environments depends on proper responses to low temperatures. In North America, winters are warming faster than other seasons. Are winters going to be more or less of a problem for plants in the future?

Leaves and flowers for the following growing season are packed into buds during summer and fall. These buds must avoid breaking and growing during unseasonal warm periods in fall and winter but must respond to similar warm temperatures in spring. This control of growth occurs through dormancy, an unknown mechanism which requires exposure to cold (chilling) prior to allowing buds to be responsive to warm temperatures (forcing). Once dormancy is established, buds must also attain cold hardiness to be able to survive low temperatures in the middle of the winter. Both dormancy and cold hardiness must be lost in a coordinated manner in spring for plants to break bud and make use of the growing season.

In the Plant Resilience Lab, we study the coordination between these two winter physiology traits at many scales, using natural and experimental temperature gradients, and how this can drive adaptation to both cold and warm environments.

This series aims to stimulate discussion and create opportunities for collaborations. Everyone is welcome to attend.

LOCATED AT 170 S UNIVERSITY STREET, WEST LAFAYETTE, IN 47907

IF YOU ARE INTERESTED IN MEETING WITH DR. AL KOVALESKI PLEASE
CONTACT DR. MORGAN FURZE AT MFURZE@PURDUE.EDU.