# The Laboratory of Tree-Ring Research

presents a talk by

## Daniel Perret

(ORISE Postdoctoral Research Fellow US Forest Service Pacific Northwest Research Station)

# *Daniel Perret, Changing world, changing forests: insights from distributions, demography, and dendroecology*

Wednesday, September 17, 2025 - 12:00pm to 1:00pm
Room: Bannister 110

Dr. Daniel Perret, ORISE Postdoctoral Research Fellow US Forest Service Pacific Northwest Research Station

Seminar title: Changing world, changing forests: insights from distributions, demography, and dendroecology

Abstract/talk description:

The interactive effects of changing climate and intensifying disturbances are having profound impacts on forests across ecological scales, from individual trees to forested landscapes to global distributions. Predicting and anticipating those impacts in order to inform strategic conservation and management decision-making is a principal challenge for forest ecologists. However, our ability to do so is limited by persistent holes in our understanding of how species and forest communities relate to the environment: how strongly does climate limit tree species' distributions? Do spatial gradients in growth rates predict growth trends through time? How do the responses of individual species scale up to community and assemblage-level trajectories? In this seminar, I will draw on wide-ranging evidence from global tree invasions, spatial networks of tree-ring timeseries, and national forest inventories to approach these and similar questions. Through these examples, we see that macroclimatic gradients – long used as proxies to predict future forest states – may be less informative than previously appreciated. Building our understanding of forest responses to global change in a way that benefits conservation and management decision-making will require integrating information across scales, from individuals to communities to landscapes.

The University of Arizona