
Department of Environmental & Plant Biology
Colloquium

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Friday, October 22, 2021 | 11:50am – 12:45 pm
Porter 104 and streamed via Teams

*“Focusing on the small stuff:
Improving our predictions of climate change impacts in forests”*

My research focuses on improving our ability to predict how forests will respond to climate change. More specifically, I focus on climate change induced species composition shifts and plant migration. Changes in forest community composition could be due to the immigration of new species or changing demographic processes due to their sensitivity to weather. Most demographic processes (i.e., reproduction, establishment, growth and mortality) are influenced by weather and stand-level properties. To improve our ability to predict these potential changes in species composition, I argue that we need to focus on the earliest life stages, or the ‘small stuff’. That is, seed production, seed dispersal, and seedling establishment. These processes are also the most poorly represented in process-based dynamic vegetation models (DVMs), so improving the representation of these processes in DVMs will lead to more accurate predictions of future climate change impacts. I will be presenting on past and ongoing research, that addresses (1) How does weather influence seed production? (2) How do assumptions about static dispersal kernels impact the simulation of plant migration? And, (3) what are the factors that influence establishment?