

# Graduate Seminar Series

## Extinction Risk of Plant Species Under Global Change

Noelle G. Beckman, PhD

Utah State University, Assistant Professor  
Department of Biology & Ecology Center

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11:30 AM | ENGR 406

Hosted by Elizabeth Vargis  
vargis@usu.edu



Abstract: For plants, which are sessile for most life history stages, seed dispersal is an essential process. Global change affects the ecology and evolution of dispersal, limiting the ability of species to move or adapt to global change events. Aspects of dispersal ability may trade-off with other aspects of a life history strategy, such as reproduction. However, dispersal has not been incorporated explicitly into investigations of plant life history strategies. Quantifying the influence of dispersal on individual fitness and plant populations is challenging. Empirically, dispersal is difficult to observe, measure, and manipulate at the relevant scales needed to assess the full influence of dispersal. Analysis of spatial models with realistic assumptions about processes at multiple scales is a mathematical challenge. Incorporating dispersal into plant life history strategies and examining dispersal under global change will not only give us a better basic understanding of patterns of biodiversity and species distributions but also allow us to better predict species' risk to climate change. Integrating empirical and quantitative approaches, my research contributes to an understanding of the mechanisms limiting plant populations and the influence of global change on these processes with consequences for plant communities and ecosystem functions.



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