

Soil, Water, and Ecosystem Sciences Distinguished Speaker Seminar

**Presented at the 20th Soil, Water, and Ecosystem Sciences Research Forum
[Co-Sponsored by the UF Water Institute]**

Speaker: **[Dr. Walter Dodds](#)**
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[Complete List of Publications](#)
[Google Scholar Profile](#)
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Title: Laws, Theories, and Patterns in Ecology

Date: Monday, February 6, 2023

Time: 9:00 am – 10:30 am

Location: J. Wayne Reitz Union – Rion Ballroom

Ecologists have long debated if there are laws or scientific theories (not in the colloquial sense, but as in the Theory of Gravity) in our field of research. Part of this debate is based on the definition of what is a law or a theory. This seminar revisits my book with the same title, and seminars based on this topic (one at the University of Florida) after more than a decade. After providing my definitions and examples from other fields, I take an approach to describe the science of ecology from first principles or "laws". These laws are then used to build theories in ecology. This approach strives for predictive ability, as this is the practical goal of science. The idea of this presentation is to stimulate thought about the basis of how we do science. In general, the field of ecology has led to some impressive predictive successes based on a framework of relatively simple principles. Examples might include "Theories" of island biogeography, metabolic ecology, stoichiometric ecology, and biogeochemical cycling.

If you can't attend the seminar, we will also have a live stream of [Opening Remarks, Keynote Speaker Presentation, SWES Faculty Presentations, and SWES PhD Graduate Student Presentations](#). For additional details about the 20th Soil, Water, and Ecosystem Sciences Department Research Forum, please contact Dr. Patrick Inglett, pinglett@ufl.edu.