



NIMBioS

National Institute for Mathematical
and Biological Synthesis



NIMBioS Interdisciplinary Seminar **3:30 p.m.*, Tuesday, April 7, 2015**

Dr. Caroline Farrior
NIMBioS Postdoctoral Fellow

“Plant traits and the importance of competition among individuals”

Plant communities are complex systems. The success of an individual depends not only on that individual's strategy and its match to the environment, but also on the strategies of other individuals within the community. One of the most noticeable structures in forests, wood, is a great example of this. Wood itself is not a productive tissue, but aids plants in competition with one another for light. So, in order to understand and predict changes in allocation to wood, we must scale from the environment and plant physiology, through individual-level competition, and up to population dynamics and finally landscape-level properties. I will present a model that makes these scale transitions for plants in competition for light, water, and nutrients, and use it to explain empirical phenomena including (1) dominant tradeoffs in allocation patterns in forests and (2) complex plant responses to simple resource addition experiments. In addition, I will introduce plans for expanding this framework to incorporate the pressure of rare disturbances as a potential driver of coexistence of important plant traits.

Location: Room 205 at NIMBioS, Claxton Education Bldg, 1122 Volunteer Blvd.

**Join us for refreshments at 3 p.m.*

**The seminar will be live streamed. Visit <http://www.nimbios.org/videos/livestream>.
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The National Institute for Mathematical and Biological Synthesis (NIMBioS) brings together researchers from around the world to collaborate across disciplinary boundaries to investigate solutions to basic and applied problems in the life sciences. NIMBioS is sponsored by the National Science Foundation with additional support from The University of

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