

Joint Seminar sponsored by  
Department of Ecology & Evolutionary Biology  
and



**Dr. Brian Beckage**  
**University of Vermont**



## **Fires, feedbacks, and the dynamics of ecological communities**



Global climate change is expected to influence the frequency of fire in ecological communities. Feedbacks between vegetation and fire disturbance may lead to nonlinear ecosystem responses to linear shifts in fire regimes. We investigate potential ecological responses to climate-driven changes in fire regimes using theoretical models that include systems of differential equations and cellular automata. We show that nonlinear ecosystem dynamics in response to fire can result in sensitivity to initial conditions, abrupt transitions in ecological state, and ecological communities with alternative stable states.

**Friday, April 30, 2010**

**Room 307 SERF; 3:30 PM**

**A pre-talk reception will begin at 3 PM in 568 Dabney.**

**Dr. Paul Armsworth is hosting.**

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