

Reassembly of eastern U.S. forests and the Darwinian invasion paradigm
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4-5pm
Myers Hall 130

If you would like to schedule a visit with Dr. Fridley, please visit:
<http://www.doodle.com/5u3tese7bv4x6ma9>

ABSTRACT: I present a model of species invasions that renews Darwin's original attempt to cast the success of non-native species as an expectation of natural selection, and show how a region's evolutionary history—as reflected in its phylogenetic diversity—predicts its importance as a global source of invasive plants and its susceptibility to invasion from species that evolved elsewhere. I then focus on a comparative case study of the growth behaviors of native and invasive shrubs of Eastern U.S. forests. Using several years of phenological data on leaf production and photosynthesis in a common shade garden, I show that non-native invasive shrubs and lianas extend the understory growing season by nearly a month compared to natives, revealing an autumn niche that is nearly absent in our native shrubs. This systematic difference in growth behavior between natives and invaders suggests the invaders, largely from East Asia, may be pre-adapted to Eastern U.S. forests, in line with a Darwinian invasion paradigm.