



cordially invites you to an

Interdisciplinary Seminar

with

Dr. Alison Power

on

“From landscapes to coinfections: Plant virus epidemiology at multiple scales”

Tuesday, March 29, 2016

3:30-5 p.m.

Reception & refreshments at 3 p.m.

Hallam Auditorium, Room 206

1122 Volunteer Boulevard



Alison Power is a Professor of Ecology and Evolutionary Biology at Cornell University. Her research program focuses on disease ecology in plant communities. Using manipulative field and greenhouse experiments, Power's lab has examined how landscape heterogeneity, plant community diversity and composition, coinfection, and plant density and dispersion affect insect-transmitted pathogens in natural and agricultural ecosystems. These topics have been addressed in various locations in the U.S., Central America, and Southeast Asia.

Abstract: Infections of a single host by multiple pathogens are common in nature but relatively poorly studied compared to single infections. In this talk, I will discuss the causes and consequences of coinfection by insect-transmitted plant viruses in two systems: 1) the multiple species of barley/cereal yellow dwarf viruses (B/CYDVs) infecting wild grasses across Western US grasslands; and 2) the multiple strains of potato virus Y infecting potatoes and other solanaceous plants on farms in upstate New York. Our research is addressing the drivers of virus emergence and spread at multiple scales, including the landscape, the field, and within individual host plants. I will present data on the influence of landscape structure, vector community composition, transmission dynamics, and within-host processes on the epidemiology of these aphid-transmitted viruses.

