

Purdue University

The Department of

Botany & Plant Pathology



SEMINAR NOTICE

The evolution of resistance in an agricultural weed: convergence, costs, and the mating system

Dr. Regina Baucom

Evolutionary and Ecological Genomics
University of Michigan

Wednesday, April 25, 2018
3:30pm WSLR Room 116



Abstract:

The common morning glory, *Ipomoea purpurea*, exhibits variation in nature for resistance to glyphosate, with some populations showing high survival post-herbicide application and others exhibiting high susceptibility. The pattern of resistance across the landscape appears to be a mosaic, such that resistance potentially evolved independently multiple times. In this seminar, I will discuss our attempts to identify the genetic basis of resistance across populations, thus addressing the central questions ‘Has resistance evolved independently across widely separated populations, or are resistance alleles shared across the landscape via gene flow? Do populations share a similar genetic basis underlying resistance, or does each population develop a unique genomic solution to the problem of extreme selection?’ I will also discuss our recent work showing that the mating system of *I. purpurea* covaries with resistance--populations that are highly resistant are more selfing than susceptible populations--along with our evolutionary explanation for such a pattern.

-To schedule a meeting with the speaker contact Stacie Miller at kitchen0@purdue.edu-