

Please note special date, time and place of this seminar

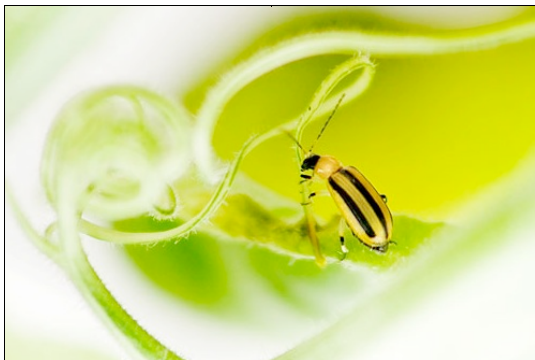
Biology Seminar

Dr. Mark Mescher

Department of Entomology, Pennsylvania State University

The chemical ecology of plant pathogen transmission by insect vectors

A number of recent studies indicate indicate that insect-vectored pathogens of both plants and animals often alter traits of their primary hosts in ways that influence the frequency and nature of interactions between hosts and vectors, with implications for disease transmission. Moreover, pathogen effects on host phenotypes can have broader effects on community ecology and ecosystem function. Many of the key ecological interactions driving such effects are likely to be influenced by pathogen effects on host plant chemistry, yet there has been relatively little work to date on the chemical ecology of insect-vectored plant diseases. We have been exploring how plant viruses and other microbial pathogens influence host-plant nutritional and defense chemistry, the chemical (olfactory) cues presented to insect vectors, and the implications of these pathogen-induced changes in plant chemistry for interactions among plants and (vector and non-vector) insects. This talk will address recent work on Cucurbit pathogens, including *Cucumber mosaic virus*, *Zucchini Yellow Mosaic Virus*, and the bacterial pathogen *Erwinia tracheiphila*.



April 4, 2011

2:00 – 3:00 PM

ENV-110 (EESAT)