Fall 2017 EEB Seminar Series

Graduate Students (October 23, 2017)

Elizabeth Walsh (Entomology)

Title: TBA

Talk summary: Honey bee populations are declining, partially due to the ectoparasite Varroa destructor. Beekeepers commonly control varroa mite populations by introducing miticides to their bee colonies. In this study, we explored whether field relevant levels of miticides in the queen-rearing beeswax has an effect on queen health. Queens in miticide-free beeswax or beeswax containing field relevant concentrations of miticides were measured for attractiveness to workers and egg-laying rates. Results indicate that exposure to miticides during development alters the reproductive health of honey bee queens by impacting their pheromones, which are what the queens use to attract caretakers, and queen reproductive physiology.

Daniel Powell (Biology)

Title: Mate choice in early generation swordtail fish hybrids

Talk summary: Genetic exchange between divergent populations ultimately depends on the mating decisions of individuals. Therefore, understanding the evolutionary consequences of hybridization requires us to identify the mechanisms underlying mate choice. Using controlled crosses of two naturally hybridizing swordtail fish species, I characterized the female mating preferences of parental species as well as the preferences of their hybrids for both parental and hybrid male phenotypes. Generally, early generation hybrid females were more permissive than parentals and early hybrid male phenotypes were at least as attractive as parentals, a scenario that could promote loss of differentiation between species through admixture.