

# **Insect Ecology, Fall 2010**

## **(ENT 198, CRN: 62143, 4 units, M/W 10-11:20)**

### **What this course is about**

This is an undergraduate course for students interested in the ecology of insects. This course will cover fundamental questions in ecology, with an emphasis on ideas, hypotheses, and insights related to the ecology of insects. I hope that this course will provide a firm foundation in both basic ecological concepts and the remarkable biology of insects. The core objective of this course is to teach the *process* of insect ecology, including the skills required to: a) observe nature in the context of existing knowledge and ideas, b) read and understand scientific figures and writing, c) ask and investigate questions in insect ecology, and d) effectively and concisely communicate scientific ideas with others.

We will address a wide range of questions in insect ecology, including:

- Why study insect ecology?
- What would happen in a world without insects?
- How do you build an insect?
- When is an insect not just an insect?
- Why do the prey of the jewel wasp walk calmly to their deaths?
- Does natural selection lead to optimal phenotypes?
- Why are there so many insect species?
- Why are there more insect species in the tropics?
- What factors regulate the size of insect populations?
- Why is the world green?
- Why are mosquitoes attracted to Limburger cheese?
- Is the enemy of my enemy my friend?
- Are trophic cascades all wet?
- Are we missing the real story with species interactions?
- How do species interactions change over time?
- What happened to the Rocky Mountain locust?
- Will climate change bring malaria in the highlands of East Africa?
- Why are herbivore densities so high in agroecosystems?
- What is the future of insect ecology?

### **The nitty gritty**

The prerequisites for this course are BIS 2A-C, or equivalent coursework. This course is aimed at undergraduates with an interest in ecology, insects or both. Some graduate students have expressed interest in this course, and graduate students are certainly welcome to enroll, but the course has been primarily designed with undergraduate students in mind.

for more information, contact: Louie H. Yang, [lhyang@ucdavis.edu](mailto:lhyang@ucdavis.edu), [yang.entomology.ucdavis.edu](http://yang.entomology.ucdavis.edu)