

**DOCTORAL OPPORTUNITY IN ECOLOGY AND EVOLUTION  
AT THE UNIVERSITY OF UTAH**

I am seeking a bright, highly motivated graduate student for a recently-funded NSF project on the ecology and evolutionary interactions of ants and their parasitoids. This project seeks to discover the ecological and evolutionary processes that govern host specificity of insect parasitoids of ants in the fly family Phoridae. As a group, these parasitoids consist of several 100 species in the Neotropical Region, most of which are extremely specialized, attacking one or a few closely related ant species. Our research group, consisting of a natural products chemist, an evolutionary biologist and a behavioral ecologist, will focus on the chemical signals host ants use in communication (pheromones) as the primary cue by which the parasitoids locate hosts and lay their eggs in them. Once the chemical signals parasitoids use to find hosts are identified, we will experimentally quantify the limits of host specificity by attracting parasitoids and inducing them to oviposit on novel hosts to see if they develop normally. These chemical signals will then be mapped onto the phylogenetic tree of hosts and compared to the phylogenetic tree of the parasitoids to determine how the distribution of chemical signals shape the evolution of host specificity and shifts to novel hosts.

Successful doctoral candidates will 1) have a solid undergraduate training (and good academic record) in ecology and evolutionary biology; 2) be **highly** motivated to pursue graduate research; 3) be a self-directed learner, able to problem solve and work independently; 4) have interpersonal and communication skills that allow he/she to be an effective part of a larger team; 5) have developed analytical and writing skills; 6) be willing to spend extended research time in the field, including Central and South America (fluency in Spanish would be an asset).

Stipend support of \$20,000 per year and research expenses in the field will be provided.

Interested candidates should contact Donald H. Feener at [donald.feener@utah.edu](mailto:donald.feener@utah.edu)

**DONALD H. FEENER JR.**  
**UNIVERSITY OF UTAH**  
**START DATE: 2012**