

PLEASE POST

Graduate Student (MS or PhD)
Insect Chemical Ecology



Position: Graduate Research Assistantship (MS or PhD)

Date: Position available immediately

Research Assistantship Description: This NSF funded position will work with C. Schal (NCSU) and A. Groot (Max Planck Institute for Chemical Ecology [MPICE] in Jena, Germany). In many moth species, male pheromone is important for species-recognition and female acceptance of males. However, despite the recognition that males invest disproportionately in the tissues that produce these pheromones, their roles in advertising male quality and guiding female mate choice have not been considered. This project addresses two major questions: (a) How does natural variation in close-range sexual signals affect female choice in moth species where the male pheromone resembles the female pheromone? and (b) Is the production of male sexual signals linked to production of female signals in these species? Specifically, the grad student and a postdoc will: (1) chemically identify the close-range male pheromones in two moth species (fall armyworm *Spodoptera frugiperda*, and tobacco budworm *Heliothis virescens*), (2) quantify the magnitude of between-strain intraspecific variation in the male pheromones, and (3) evaluate what variable features of the male pheromone contribute to female choice.

Portions of this project will be conducted at the MPICE, providing a unique opportunity to be trained and conduct research in an international collaborative setting.

Application: For more information, contact:

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To apply to NCSU's Entomology Department:

<http://www.cals.ncsu.edu/entomology/misc/app-forms>