

**Speaker:**

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Date: Monday, Mar. 08, 2021**Time:** 4:00 pm - 4:50 pm**Zoom:** 952-3324-4564**Passcode:** 835322**Title:**

“Pheromone generalization in the Corn earworm”

Abstract:

Sexual communication and pheromone recognition in moths are models of conspecific recognition and mating using chemical signals. In order to perform their long-distance search, male are keenly perceptive of the fine structure of odor plumes as well as the highly -tuned to the composition of a blend in pheromone plumes (Almass et al. 1991). Despite intensive natural selection sensory capabilities, a recent study discovered the European corn borer appears to generalize pheromone recognition when blend ratios are switched during upwind flights (Karpati et al, 2012). Here, we examined if this pheromone generalization, or response in the same way to similar but different stimuli, extends to other species of moths and how narrow or broad this generalization applies. To test these ideas, we designed a preliminary behavioral assay in which we present *Helicoverpa zea* with a single switch of pheromone blend midflight. Two pheromone lures with differing ratios were placed on a horizontal sliding mechanism such that moths would first be presented with the correct ratio of pheromone components and then switched to present a less attractive ratio. Despite a drastic change in lure, we found little difference between groups in the flight behaviors of moths after the pheromone switch.