UC RIVERSIDE

# DEPARTMENT OF ENTOMOLOGY

## Entomology Seminar Series

## Speaker:

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Assistant Professor
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**Date:** Monday January 6, 2025
**Time:** 4:00 pm - 4:50 pm
**Format:** In-Person Seminar & Virtual Access
**Location:** Genomics Auditorium 1102A
**Zoom:** 952 1906 3064
**Passcode:** 505445

**Title:**
"***The role of plant functional traits in shaping insect-plant interactions***"

**Abstract:**

Plant functional traits are crucial in how phytophagous insects recognize their hosts. This talk will cover three case studies on this topic. First, adjusting leaf pH levels has increased the feeding holes and oviposition rate of a newly approved biological control agent for invasive yellow starthistles. This finding directly increases the population sizes of biological control agents for field release in California. Second, field-based volatile organic compounds were collected from federally listed threatened and endangered plant species in the Boraginaceae family. This data allowed the technical advisory group members to make decisions regarding the environmental safety assessment of potential biological control agents in the United States. Third, measuring stomatal conductance and chlorophyll fluorescence in native and invasive plants adds another layer of environmental safety for biological control agents; volatile organic compounds and secondary metabolites are derived from photosynthesis. Combining a portable photosynthesis system with a portable gas chromatography-mass spectrometry device allows us to observe real-time changes in plant functional traits, which insects utilize across multiple study systems.

Refreshments will be served in the Entomology Building at 3:30 pm