UC RIVERSIDE

DEPARTMENT OF ENTOMOLOGY
ENTM250 Seminar Series

Speaker:
Nicholas A. Poulos, Ph.D.

Postdoctoral Researcher
Department of Entomology, University of Riverside

Date: Monday, April 6, 2026
Time: 4:00 pm - 4:50 pm
Format: In-Person Seminar & Virtual Access
Location: Genomics Auditorium 1102A

Zoom: 943 6687 2379
Passcode: 453393

Title:
"Attractants, Chitin Synthesis Inhibitors, and Bacterial Diversity of Fecal Pellets: Improving Localized Chemical Treatment and Detection of the Western Drywood Termite (Blattodea: Kalotermitidae)"

Abstract:
My work aims to improve and develop new detection and management tools for urban arthropod pests. The western drywood termite, Incisitermes minor, is a structural pest of significant economic importance in its native range, the Southwestern United States. The cryptic nature of drywood termite colonies can make the detection and treatment of infestations difficult. The extensive gallery structure of mature drywood termite colonies and their tendency to aggregate at specific parts of the galleries can impact the efficacy of localized insecticide injection. Two studies were conducted to address this issue. First, two volatile terpenes, α- and β-pinene, were tested in artificial termite galleries for their ability to lure termites away from their aggregations and their impact on two commonly used insecticides, fipronil and disodium octaborate tetrahydrate. Second, chitin synthesis inhibitors were tested against I. minor for their general toxicity and horizontal transfer capabilities. Lastly, to assess the viability of using bacteria as a biomarker to distinguish freshly produced from aged fecal pellets, I investigated the bacterial content of I. minor pellets over time. These findings provide a basis for the characterization of the microbiome of I. minor fecal pellets and discovered multiple candidate biomarkers which may be utilized to distinguish freshly produced from aged fecal pellets.

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