



RIVERSIDE

DEPARTMENT OF ENTOMOLOGY
Entomology Seminar Series



Speaker:

Jorge Bustamante, Jr. Ph.D.

Postdoctoral researcher, Biomechanist, Urban entomologist, Department of Entomology, University of California, Riverside

Date: Monday October 14, 2024

Time: 4:00 pm - 4:50 pm

Format: In-Person Seminar & Virtual Access

Location: Genomics Auditorium 1102A

Zoom: 952 1906 3064

Passcode: 505445

Title:

"A novel leaf-derived trapping material is more effective at capturing bed bugs (Hemiptera: Cimicidae) than commercially available monitoring devices"

Abstract:

Bed bugs (*Cimex lectularius*) have become established as common and significant commensal pests throughout the world. Effective bed bug monitoring and control programs remain challenging goals within the urban pest management industry. Pitfall “interceptor” traps and sticky “glue board” traps are the most commonly utilized devices for bed bug monitoring and detection in various settings. We compared a novel leaf-derived trapping material (LDTM) and several selected pitfall and sticky traps for their capture efficacy of bed bugs in laboratory experiments of different sizes, as well as field experiments. The LDTM employs a piercing-trapping mechanism in which trichomes physically impale bed bugs as they traverse the surface, preventing their further movement. Small arena experiments determined the distance bed bugs of all life stages traversed on the LDTM before becoming trapped. Our results indicate that the LDTM captured bed bugs more effectively than selected commercial devices in large arena and field experiments. Furthermore, our results revealed that the LDTM consistently trapped more bed bug nymphs than most of the selected commercially available traps. These results highlight the potential for applications of the LDTM to enhance bed bug integrated pest management (IPM) strategies.

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