



RIVERSIDE

DEPARTMENT OF ENTOMOLOGY

ENTM250 Seminar Series



Speaker:

James Nieh

Associate Dean

School of Biological Sciences

University of California, San Diego

Date: Monday, May 23, 2022

Time: 4:00 pm - 4:50 pm

Format: In-Person Seminar & Virtual Access

Location: Genomics Auditorium 1102A

Zoom: 948 0131 1028

Passcode: 347039

Title:

“Eavesdropping and signal evolution from the arms race between honey bees and their hornet predators”

Abstract:

The study of arm races between predators and their prey has yielded key evolutionary insights. Honey bees and their hornet predators are engaged in an evolutionary arms race that has led to remarkable inter- and intraspecific communication, which sheds light on the evolution of deimatic signaling and referential communication. I will explore what my collaborators and I have learned from several years of studying how the Asian honey bee species, *Apis cerana*, defends itself against the eusocial hornets, *Vespa mandarinia* and *Vespa velutina*. These defenses and signals are not found in *Apis mellifera ligustica*, which has not co-evolved with these formidable hornets. However, given the likely independent evolution of the heat-balling defense between honey bees and their sympatric hornet predators, we have a glimpse of the future if *Apis mellifera ligustica* continues to experience heavy selective pressure from invasive hornets and if evolution is allowed to take its course.

Refreshments will be served in the Entomology Building Courtyard at 3:00pm