

**Speaker:****Santiago Ramirez**Associate Professor
Department of Evolution & Ecology
University of California, Davis**Date:** Monday, April 19, 2021**Time:** 4:00 pm - 4:50 pm**Zoom:** 952-3324-4564**Passcode:** 835322**Title:**

“The Evolution of Chemical Communication and Reproductive Isolation in Orchid Bees”

Abstract:

Insects rely more on chemical signals than on any other sensory modality to find, identify, and choose mates. Male orchid bees acquire chemical compounds from various environmental sources including orchid flowers, fungi and rotten vegetation, and store them in highly specialized pouches in the hind tibiae. Male bees release the resulting perfume bouquet in elaborate courtship displays at perching sites where mating takes place. Because perfumes are intricately involved in mating behavior and species recognition, perfume communication is thought to function as a pre-mating reproductive barrier among co-occurring orchid bee species. In this unique chemical communication system, the sense of smell is crucial for both perfume acquisition by males and perfume detection by females. My research has focused on understanding how this fascinating chemical communication system evolved and contributed to the formation of new species.