

**Speaker:**

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Date: Monday, Mar. 01, 2021**Time:** 4:00 pm - 4:50 pm**Zoom:** 952-3324-4564**Passcode:** 835322**Title:**

“Native ant interactions with invasive species, stink-net and Sahara mustard, in coastal sage scrub”

Abstract:

Pogonomyrmex rugosus is one of the most common harvester ant species found in the endangered ecosystem, coastal sage scrub (CSS). The effects of their seed harvesting behavior and preferences has yet to be determined within this ecosystem. We sought to determine if *P. rugosus* prefers a highly invasive species, stink-net (*Oncosiphon piluliferum*), and if plant species composition immediately around *P. rugosus* nests are different from areas away from nests. Previous research has shown that *P. rugosus* preferentially harvests invasive Sahara mustard seeds (*Brassica tournefortii*) based on a cafeteria style experiment. No research exists on whether this or other preferences affect CSS species composition. Examining how *P. rugosus* interacts with invasive plant species will provide more information for habitat restoration. We used a cafeteria style experiment to determine seed preference between 4 different plant species. Species composition was sampled by measuring percent cover of the plants around and away from each nest. *P. rugosus* preferred seeds placed 3 meters away from their nest, and overall preferred stink-net and native buckwheat over brittlebush and Sahara mustard. Significantly more Sahara mustard was found near nests and data suggests commonly foraged native annuals are less likely to be found near the nests. More work needs to be done to determine how *P. rugosus* is affecting plant composition and what effect this has on conserving CSS.