

**Speaker:****Morgan Carr-Markell**

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Harvey Mudd College**Date:** Monday, Mar. 29, 2021**Time:** 4:00 pm - 4:50 pm**Zoom:** 952-3324-4564**Passcode:** 835322**Title:**

“If you plant it, will they come? Using waggle dances and pollen ID to evaluate potential food sources for honey bees”

**Abstract:**

The waggle dance, honey bees' unique signal for communicating the locations of rewarding patches of flowers, provides us with a window into how honey bees perceive the food resources in the landscape around them. Recently developed methods for incorporating error in the waggle dance to make dance mapping more accurate allow us to ask questions about where honey bee colonies choose to send their foragers in different landscapes. Combining this spatial information from waggle dances with pollen identification gives a picture of both where they went and what subset of flowers they collected pollen from. In this seminar, I will describe observational studies looking at the attractiveness of prairies, a habitat type that many Midwestern (United States) organizations are working to reconstruct, including which prairie forb species honey bees collect from and advertise with waggle dances. I will also discuss variables that may account for the predominance of non-native weeds in pollen samples, a preliminary experiment to look at the effect of floral density on honey bee recruitment, and plans for this summer to study the effects of flower patch size. The results will help us better understand honey bee foraging dynamics, which has practical implications for the design of pollinator-friendly plantings (including efforts to minimize potential competition between honey bees and other pollinators).