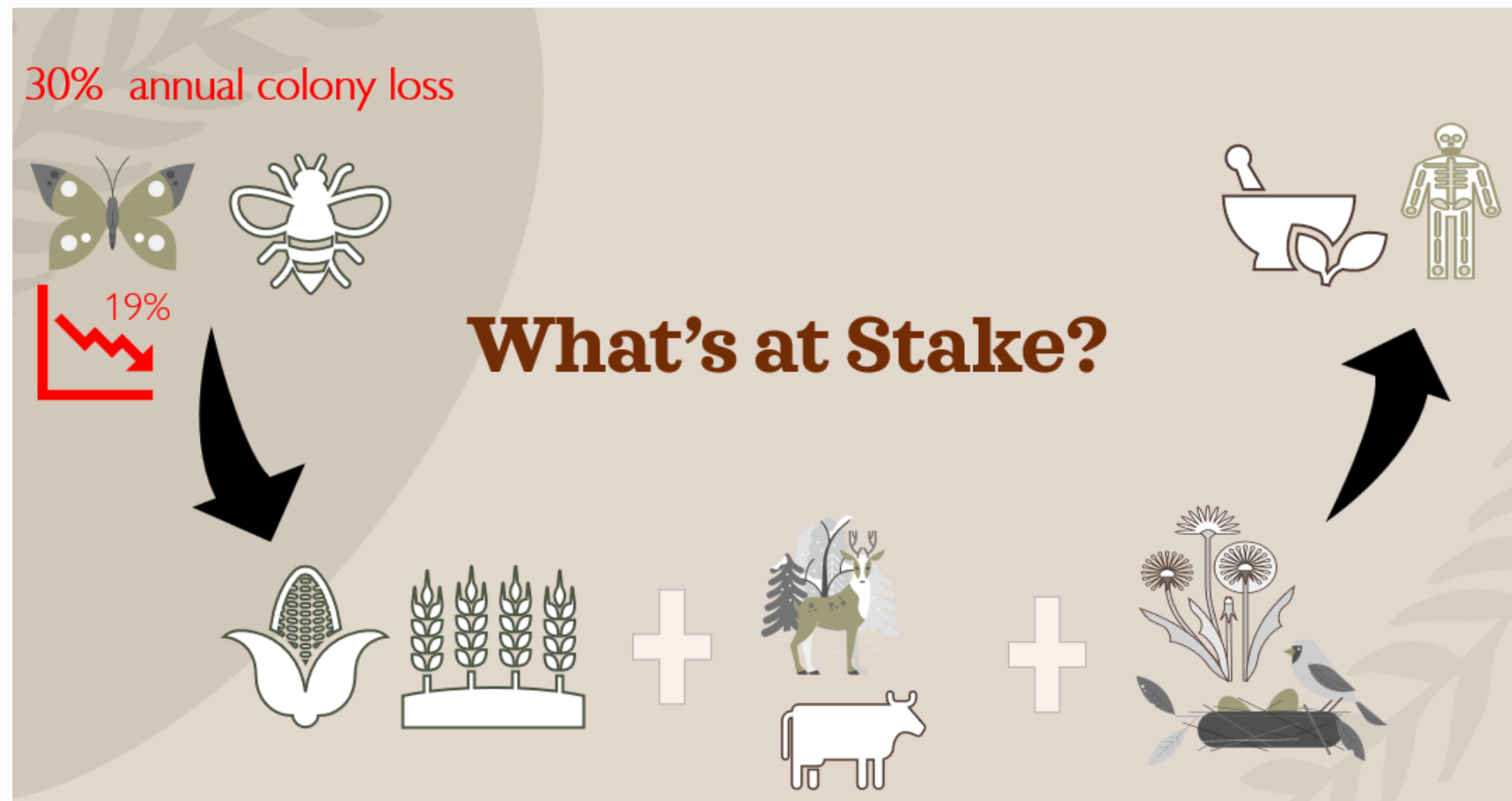


# Cavity-Nesting Bee Conservation and Ecology in Urban Ecosystems

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Amy S. Gill\*<sup>[1]</sup>, Kyle Ruszkowski<sup>[1] [2]</sup>, Karim Gharbi<sup>[3]</sup>, John Mola<sup>[1]</sup>

[1] Forest and Rangeland Stewardship, Colorado State University, Fort Collins, CO, USA.  
[2] Graduate Degree Program in Ecology, Colorado State University, Fort Collins, CO, USA.  
[3] Colorado State University Extension in Denver, Denver, Colorado, USA



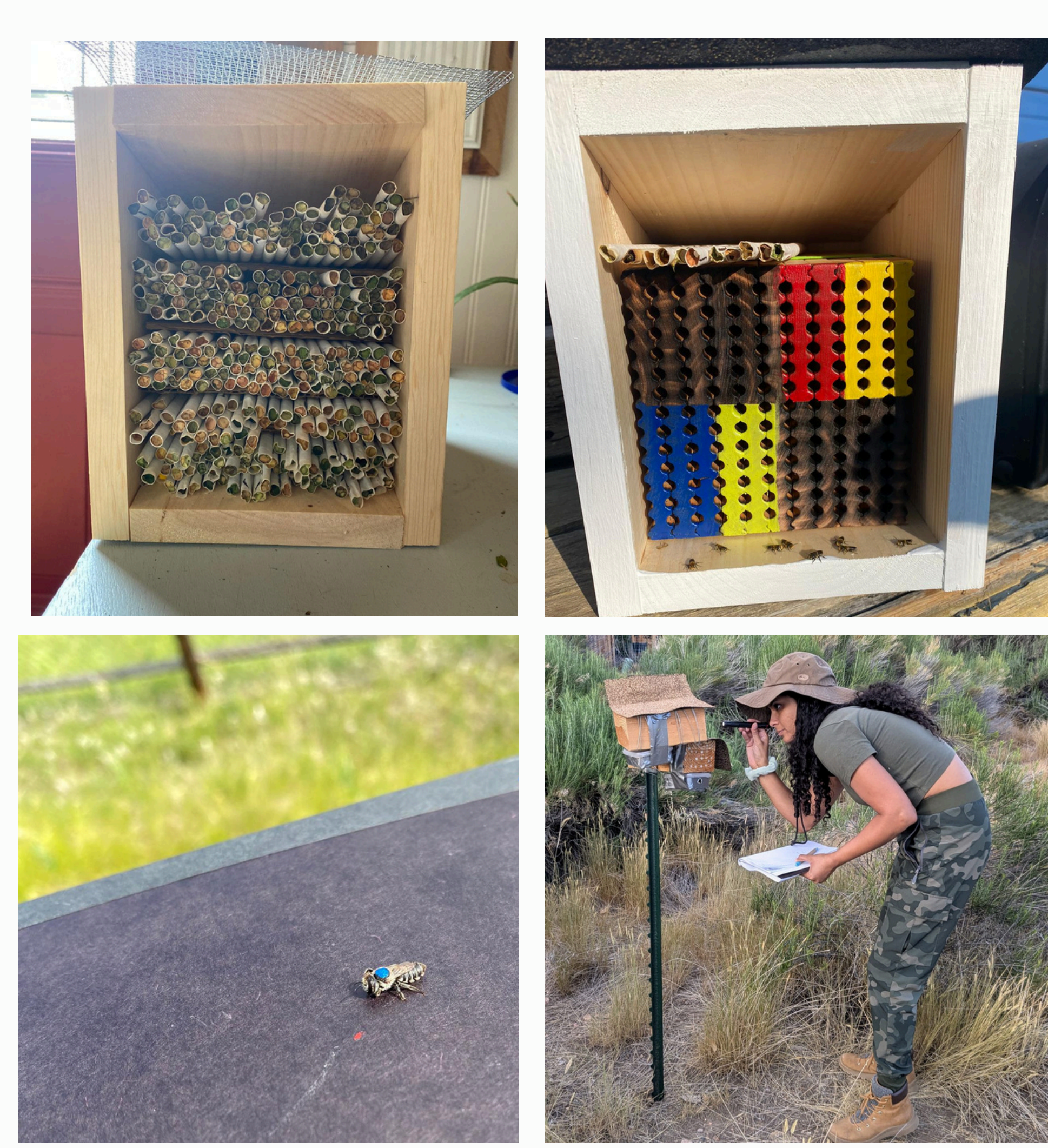
## 1 Objectives

- Urbanization and land use change are likely primary drivers in pollinator decline
- Understanding the nesting preferences of cavity-nesting bees
- Test the effect of “bee hotels” in urban versus natural areas on native bees' nesting habits/patterns

### Hypothesis

Bees will be more successful navigating natural areas than urban areas

## 2 Treatments



- ## 3 Data collected
- Bees released in 11 natural areas across Fort Collins, CO
  - Monitored cavity nest occupancy frequency
  - ID all cavity occupants including bee insect pollinators such as wasps to species
  - Use a transect line to monitor the bees across a 1 Km line



- ## 5 Major Findings & Future Directions
- Bee hotels closest to residential areas had the most native bee occupancy
  - *Megachile rotundata* have multiple generations in a single season
  - The Colina Mariposa had the most native cavity-nesting bees
  - Native wasps parasitized the *M. rotundata* at reservoir ridge sites
  - Native wasps such as *Leucospis affinis* parasitize a non-native bee
- Future Directions**
- Measure how foraging distance affects nest parasitism and usurpation
  - Test out different colored and shaped bee hotels

### Acknowledgments

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