

# Do fuel-reduction treatments in managed forests affect native bee communities?

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## Background

- Native bees are vital to food security and biodiversity. Many species are in decline due to a range of threats.
- Severe wildfires have increased in the western U.S. over the past several decades.
- Fuel reduction techniques are used to lessen the effects of wildfire and mitigate timber loss.
- The effect of fuel reduction treatments on bees and factors affecting bees is unknown.
- Importance:** As large fires become more frequent and fuel reduction treatments expand, this work will provide a framework for land managers to consider native bee communities in future fuel management decisions.

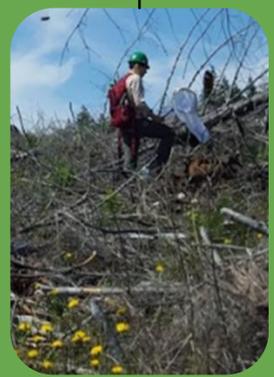
## Methods

- Summer of 2023 and 2024
- Sampling of bee communities, floral and resources (3 rounds per year)



Passive

Active

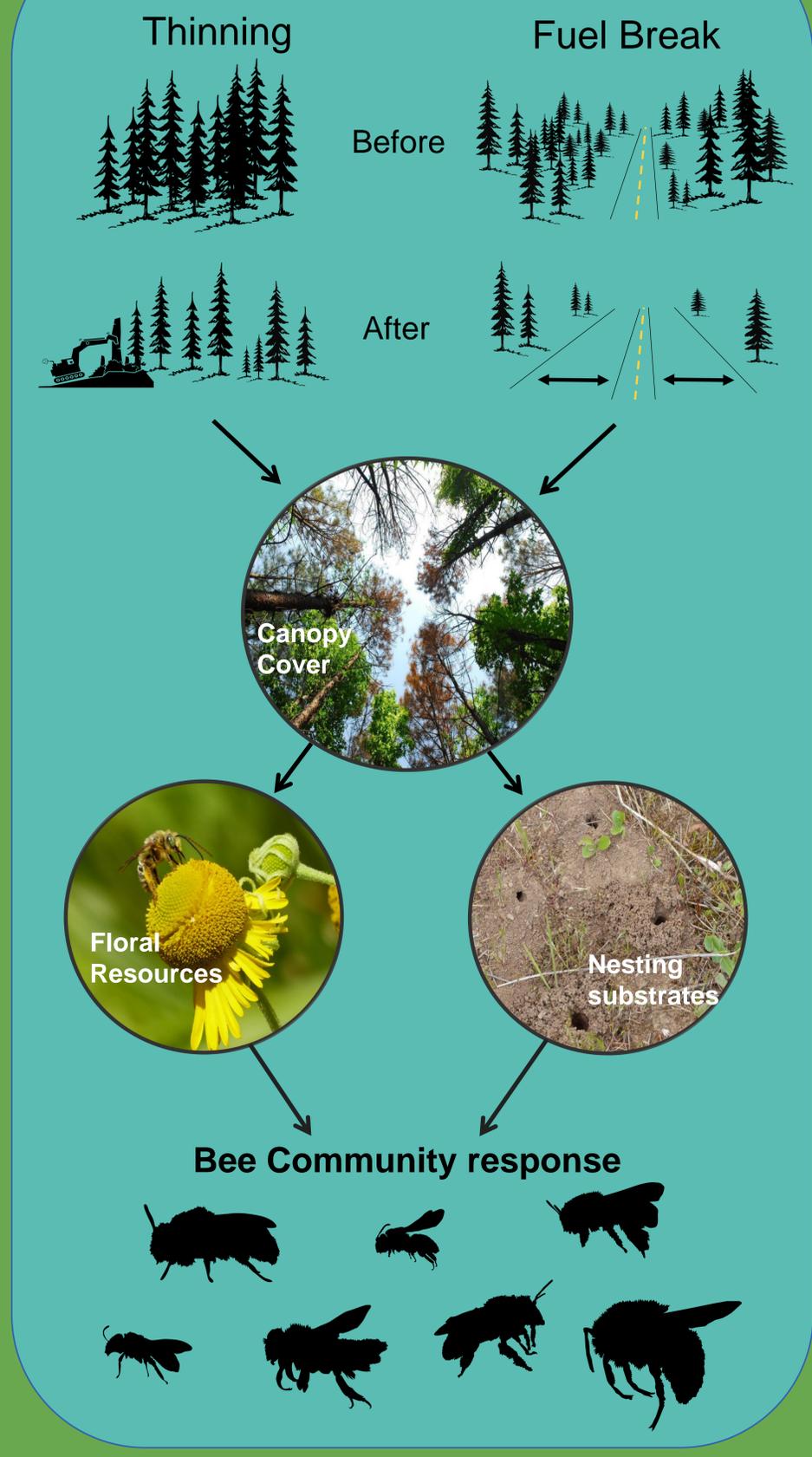


Blue Vane Traps

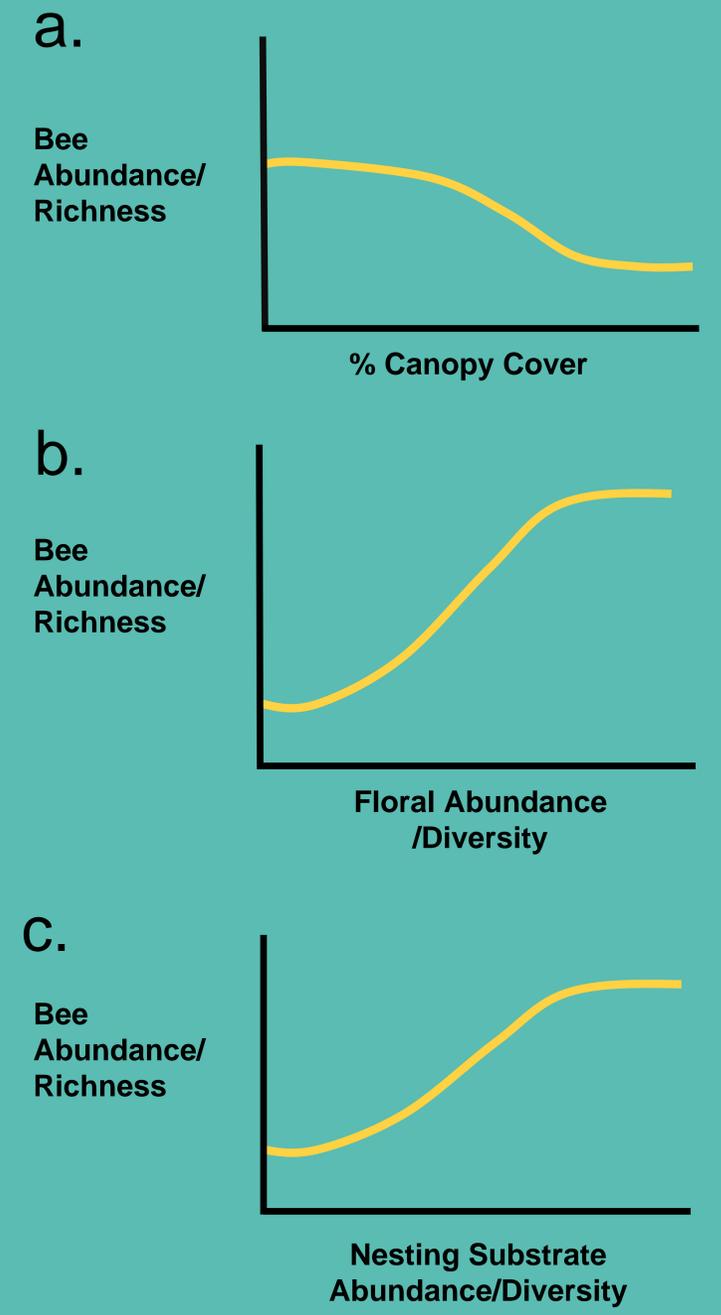
Pan Traps

Netting

## Study framework



## Predicted Results



**Hypotheses:** We predict that treatments with:

- Less canopy cover
- More floral resources
- More nesting resources

will increase native bee abundance and diversity.

Thanks to our collaborators:

Thanks to our funder:



**Tribal Nations Acknowledgment:** We recognize we work on land that belonged to the Tribal Nations of: Modoc, Pit River, Achumawi, Maintain Maidu, Yana, Cayuse, Umatilla, Walla Walla, Northern Wintu, and others who managed this land using prescribed fire until their genocide and forcible removal by the state of California. We aspire to help heal damage done by settler colonialism by honoring Tribal Sovereignty Rights, and taking our work beyond the land acknowledgment. A map of Tribal Nations (and their websites) in our study area can be found by scanning the QR code.

