The Effects of *Vicia villosa* Invasion on Grassland Plant-Pollinator Interactions

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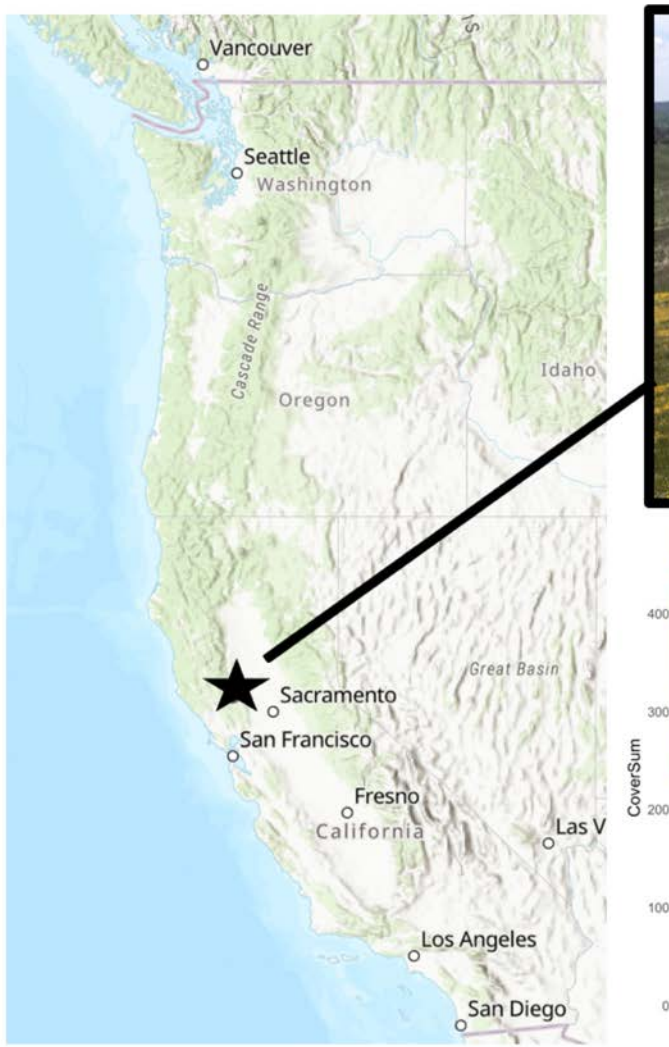
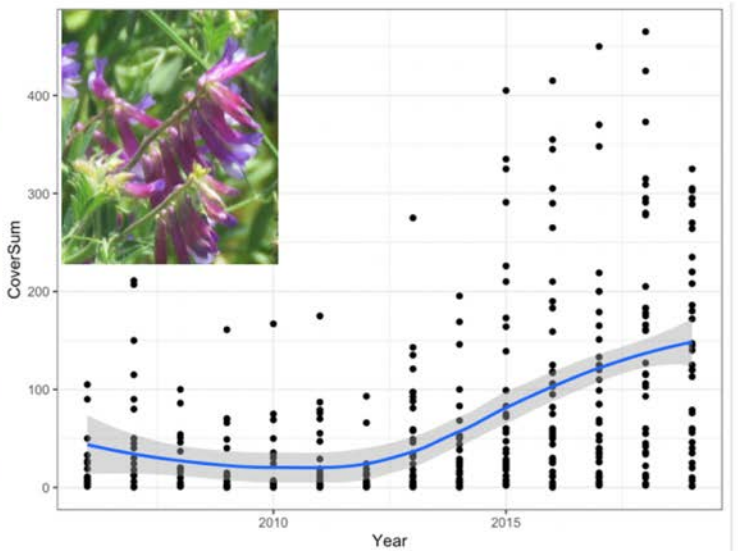
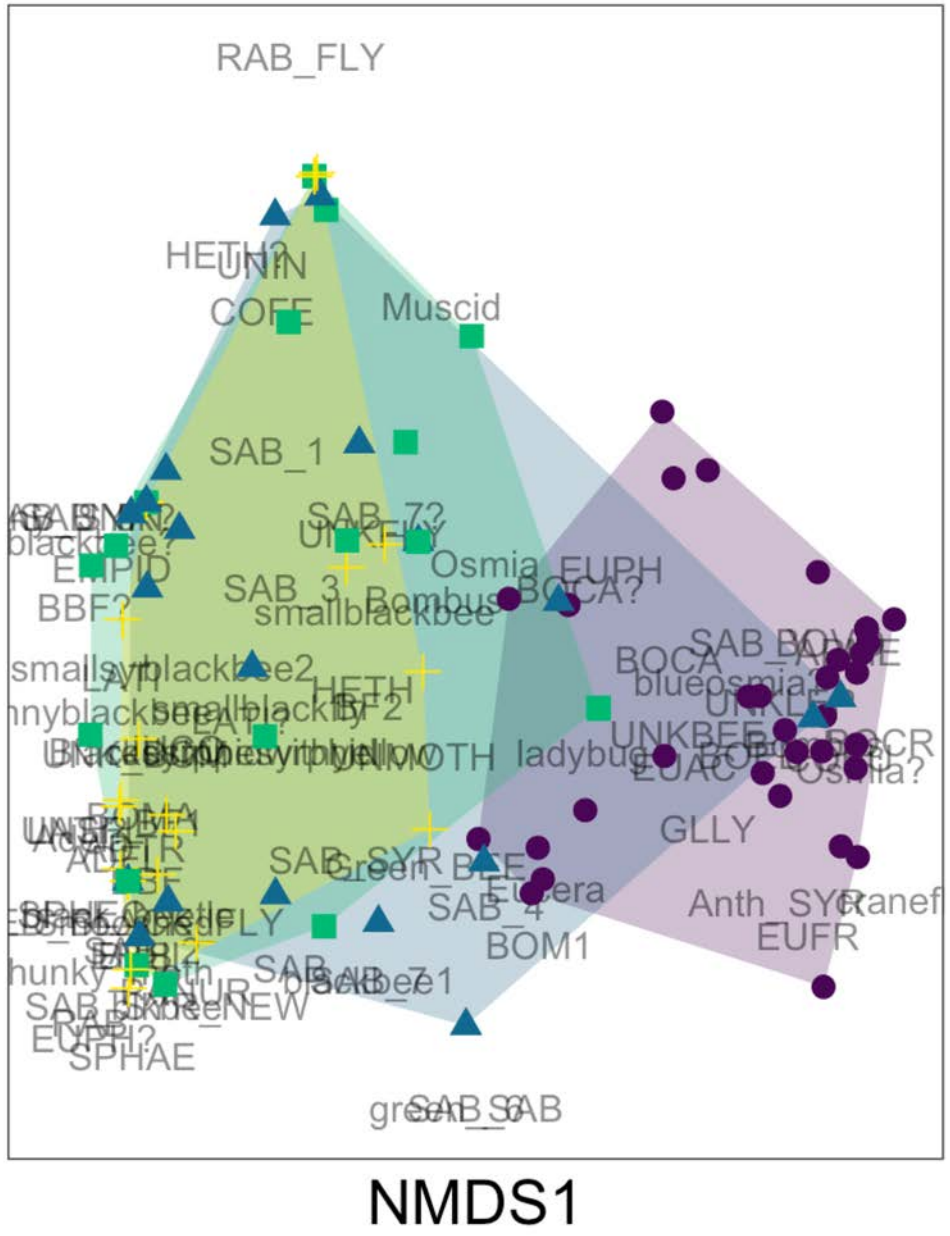
Methods





- University of California McLaughlin Reserve
- grid of 24 $2\mathrm{m}^2$ plots, comparing plots of *Vicia* at the invasion front (0 m) to plots of native plants 1 m, 10 m and 50 m away from the invasion front
- 4 meadows

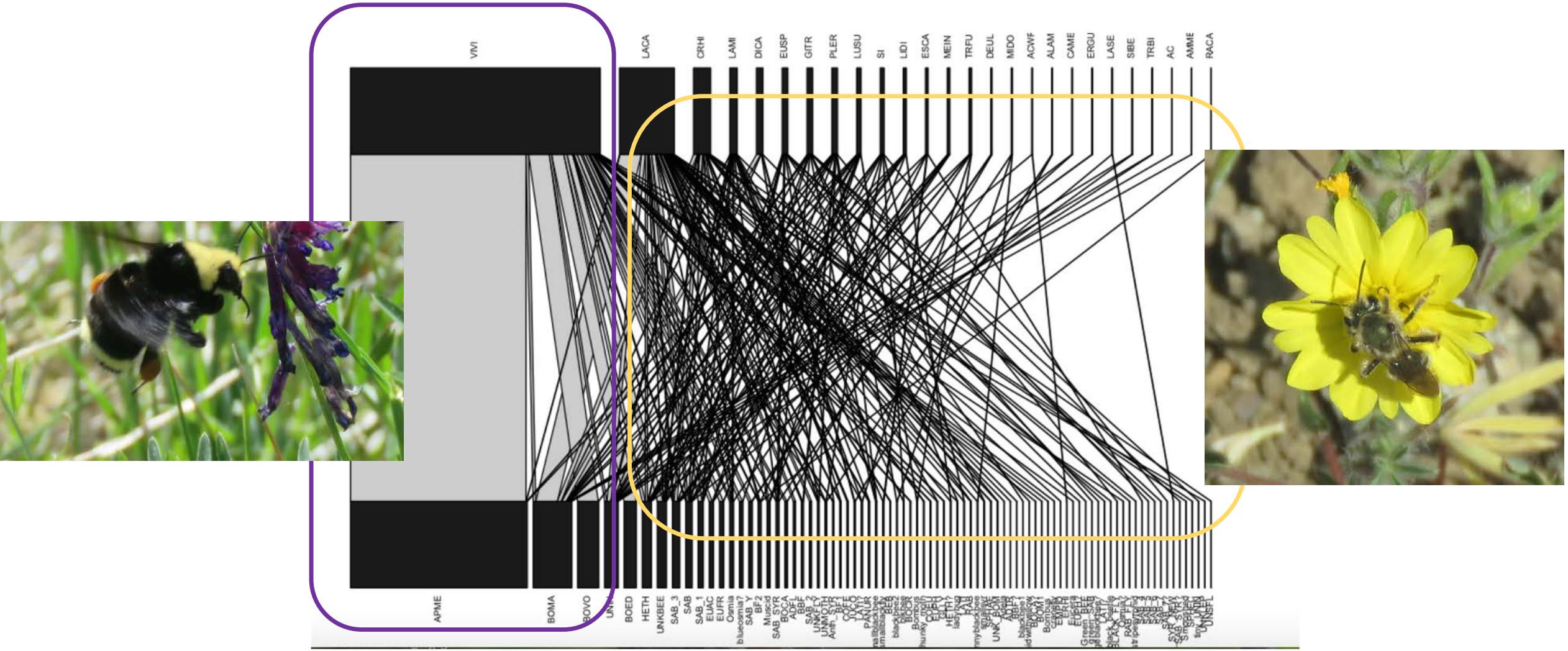
Results



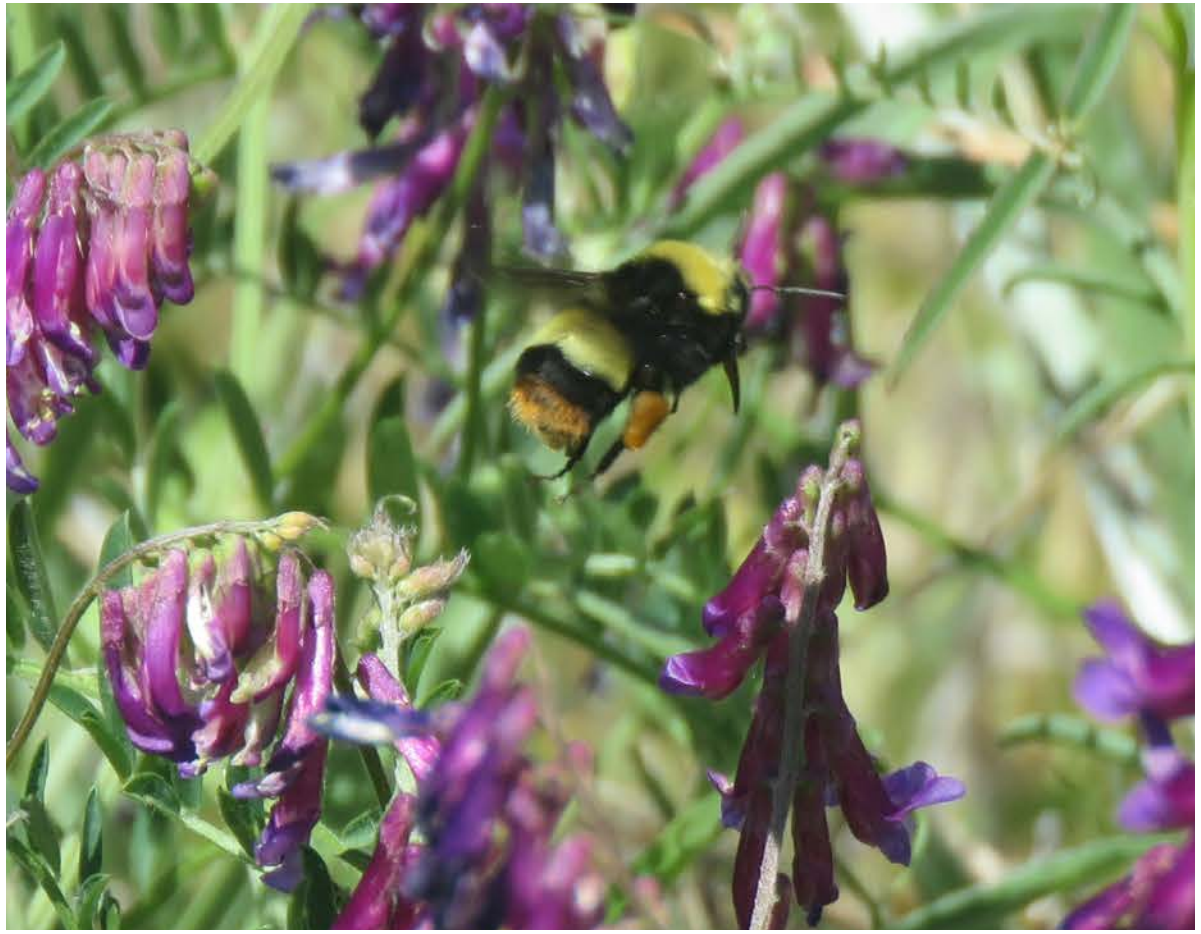
Distance
- 0 m
- 1 m
- 10 m
- 50 m

(Permanova F=10.43, p = 0.001***)

Trait-matching resulted in distinct pollinator communities between invasive and native plant communities.



Bumblebee conservation



- The non-native honeybee was the main pollinator of *Vicia* followed by native bumblebees.
- The endangered Crotch's bumblebee (*Bombus crotchii*) visited *V. villosa* for nectar rewards.

Next steps

Yellow starthistle companion study

Restore native plants functionally similar to *Vicia*

Acknowledgements

For thousands of years, the land where this study took place has been the home of Patwin and Miwok peoples. Thank you to Prof. Susan Harrison, Cathy Koehler, Paul Aigner, Bita Rostami, and Alexis Grana for their support.

California Native Grasslands Association

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Questions?

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