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

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Acknowledgements

For thousands of years, the land where this study took place has been the home of Patwin and Miwok peoples. Full land acknowledgment at: https://politicalecologylab.ucdavis.edu/uc-davis-pe-lab-land-acknowledgement

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Photos taken by Becca Nelson unless otherwise noted.
Cross-boundary effects

serpentine grassland

non-serpentine grassland

Scherer-Lorenzen, et al. 2022
TREE, Artz and Waddington 2006
Journal of Ecology
2. How does proximity to invasive vetch at a community boundary affect plant-pollinator interactions within native-dominated serpentine grasslands?
Methods

- Observational study of Bull Clover (*Trifolium fucatum*) floral visitation at 0, 1, 5, 10, and 50 m from Hairy Vetch (*Vicia villosa*) at 6 meadows spanning an invasion gradient
- Recorded community-level plant-pollinator interactions and floral abundances for the same 6 meadows to generate networks
- Mixed effects models and network z-scores
Within-meadow Effects
Vetch Invasion Gradient
Summary

• Between meadow distance effects were stronger than within meadow effects.
• Pollinator richness and abundance peaked at medium invasion intensities.
• At high invasion levels, Hairy Vetch replaced Bull Clover as a key hub in the network.
Questions?

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Thank you for listening!