

The effect of yellow star-thistle invasion on native plants and pollinators



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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.



Hopland Scholars Fund



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Indirect Effects of Invasive Plants



Serpentine Sunflower
Helianthus exilis



Yellow Star-thistle
Centaurea solstitialis

Indirect Effects of Invasive Plants



serpentine grassland



invaded grassland

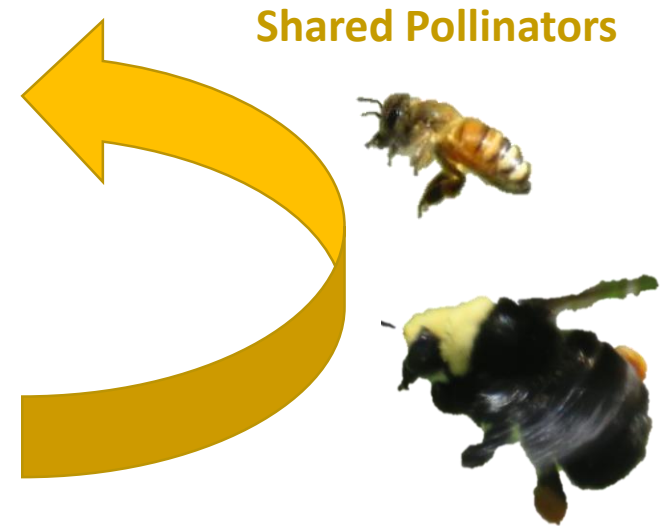


Indirect Effects of Invasive Plants



serpentine grassland

invaded grassland



**Does star-thistle affect the
pollination of an endemic
sunflower via shared
pollinators?**



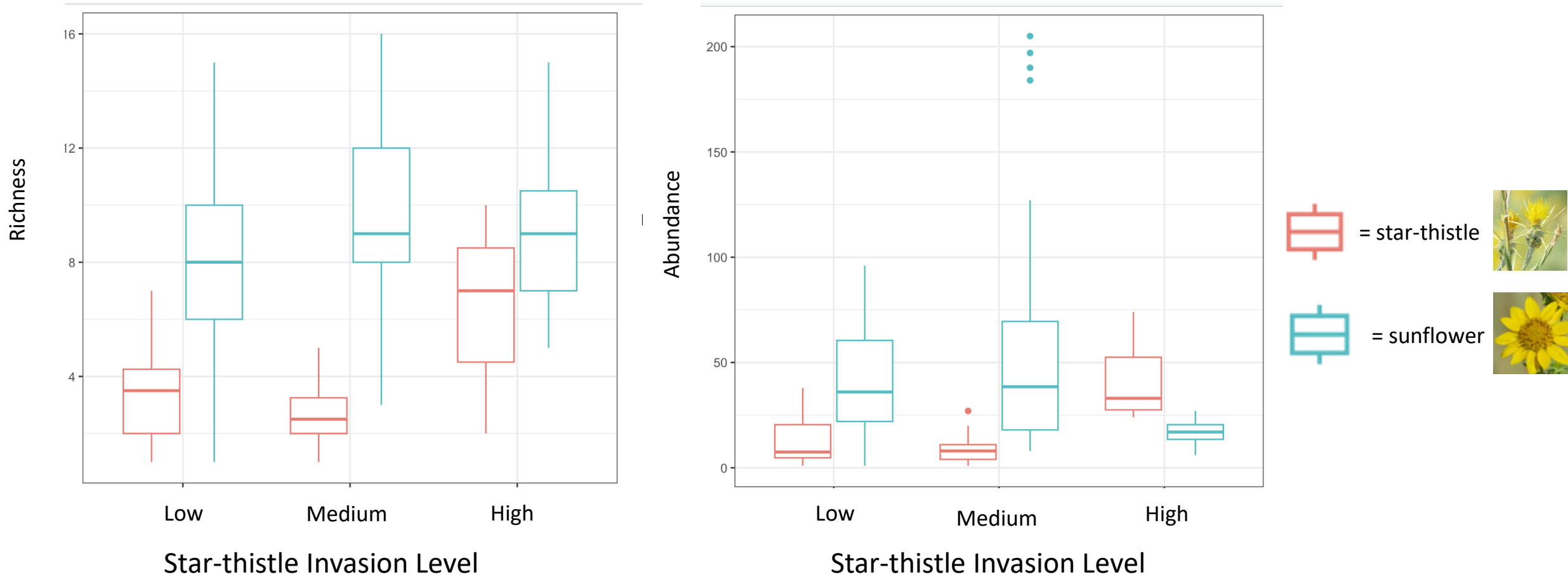
Methods



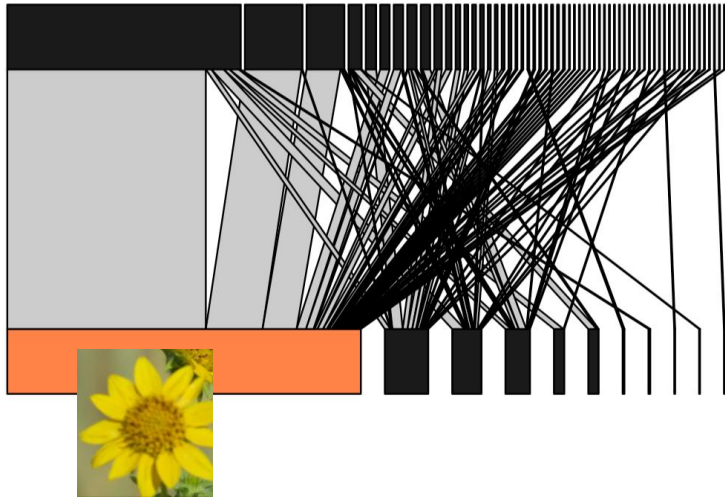
- Focal Plants
- Network

Increasing thistle invasion

Results

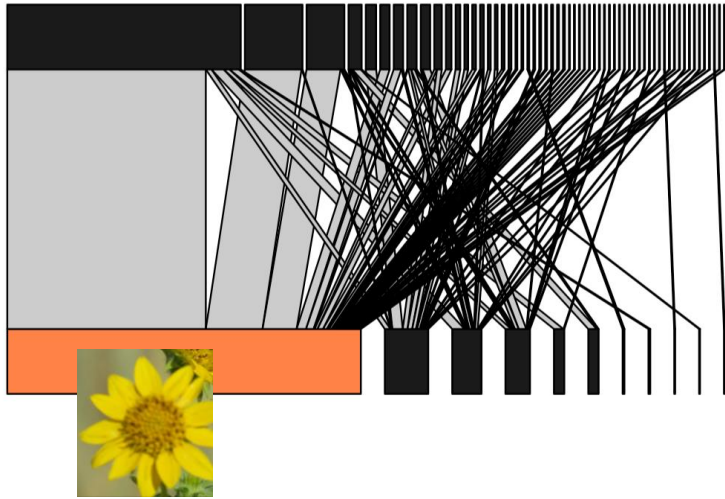


Low Invasion



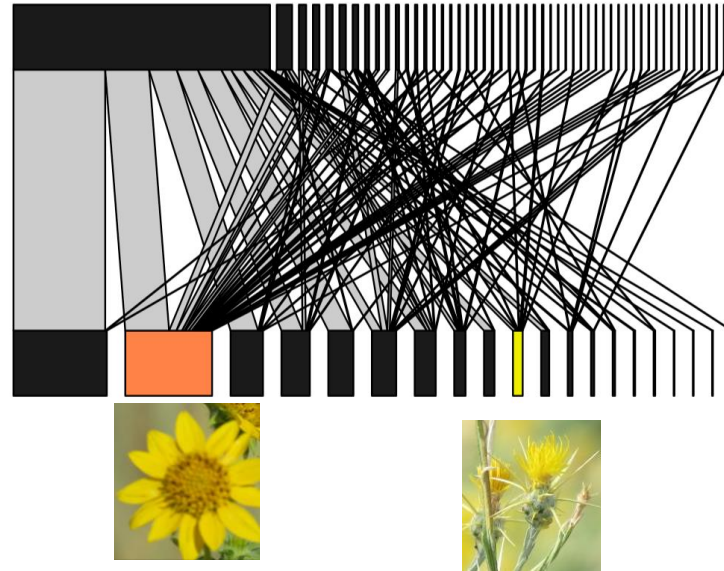
- **Serpentine sunflower acts as a core hub for pollinators**

Low Invasion



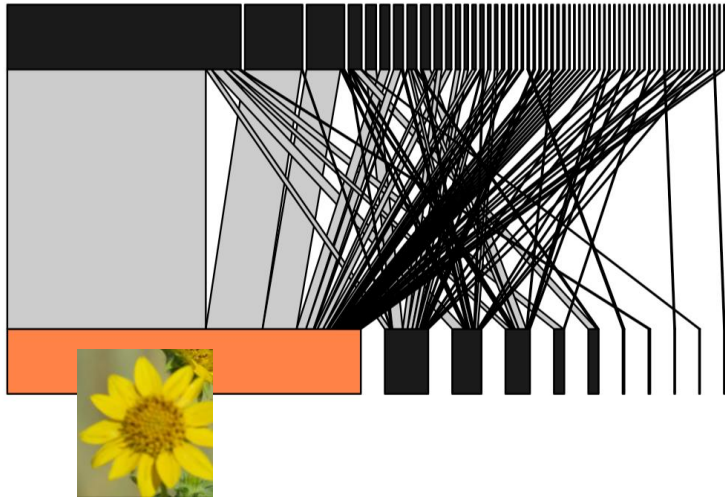
- **Serpentine sunflower acts as a core hub for pollinators**

Medium Invasion



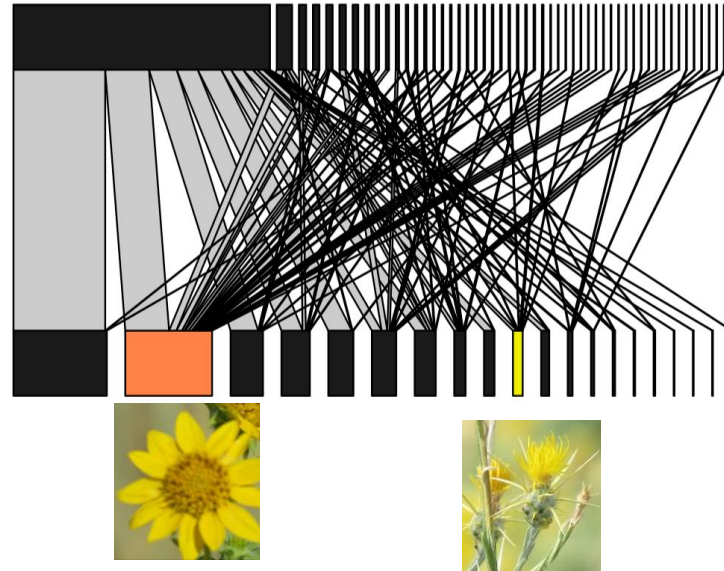
- **Neither of the two species acts as a core hub**

Low Invasion



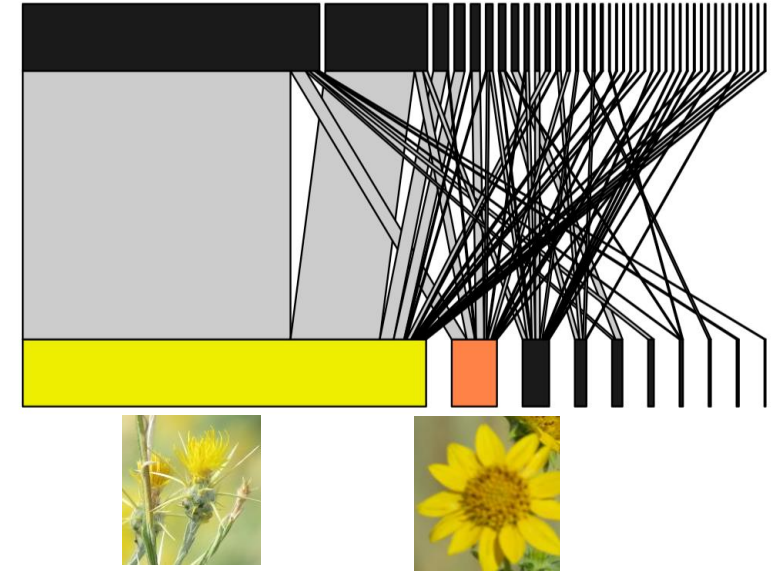
- **Serpentine sunflower acts as a core hub for pollinators**

Medium Invasion



- **Neither of the two species acts as a core hub**

High Invasion



- **Star-thistle acts as a core hub for pollinators**

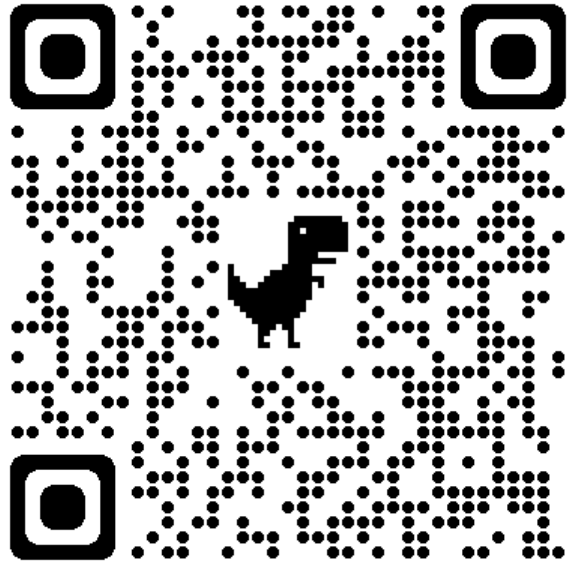
Management Implications

- Pollinator diversity
- Pollinator services
- Late season floral resources



Questions? Contact ranelson@ucdavis.edu

Website &
SciComm



Restoration
Preprint



Thank you for listening!

