



What Happens to Restored Coastal Grasslands?

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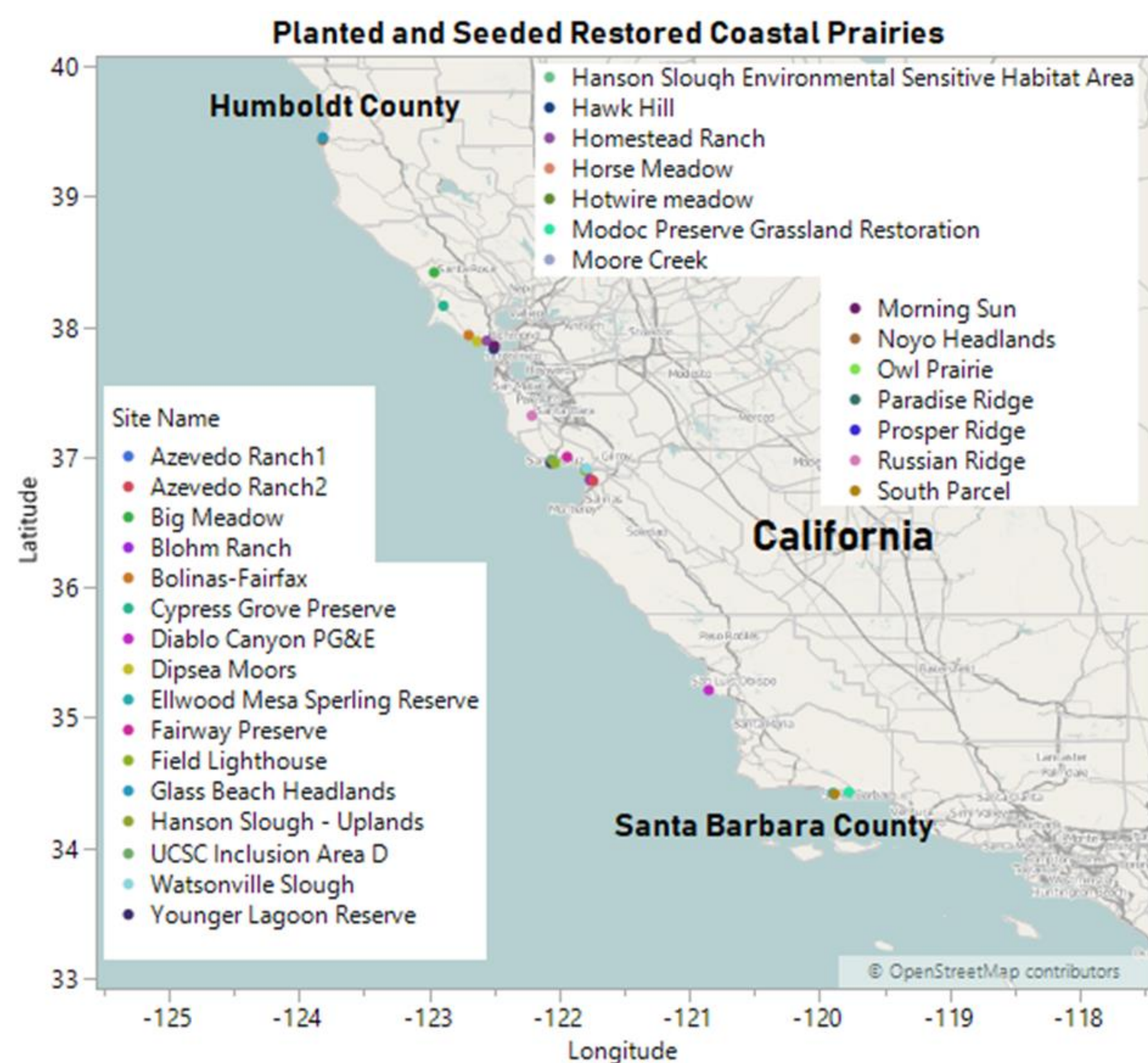


Background

- Restoration projects are rarely monitored beyond the first few years after project implementation (Holl and Howarth 2000) and rarely against their original goals
- Restoration practitioner's decisions and perspectives are often overlooked, but can help in resolving idiosyncratic success patterns (Suding & Hobbs 2009)
- Although there have been notable restoration successes, limited time and funds typically prevent practitioners from sharing their practices

Methods

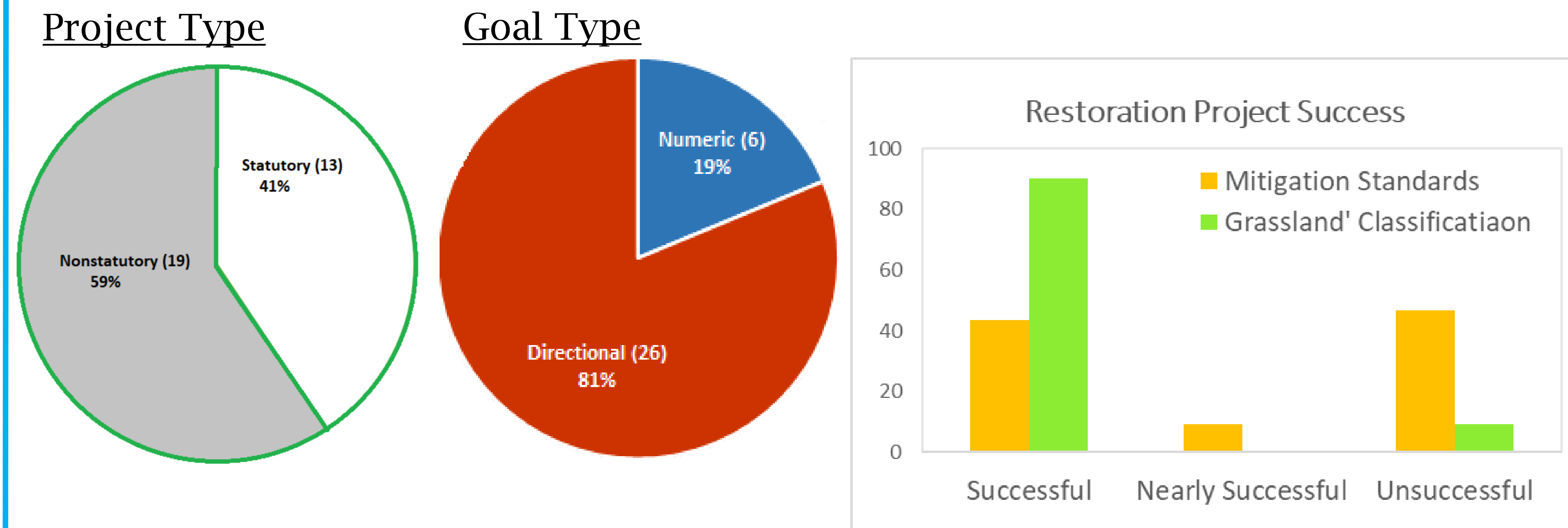
- Assessed and Restored Grasslands that were actively planted or seeded
- 32 Sites from Santa Barbara to Humboldt
- 3 – 31 years post-restoration
- 1 – 33 acres in project size
- Used document analysis and short interviews to determine original project goals
- Assessed vegetation cover by species in 2019 with 3 – 16 transects (scaled to site size)
- Compared site success based on standard mitigation requirements for coastal grasslands and the terrestrial classification for native grasslands
- Will conduct interviews with all available restoration practitioners in 2020



Research Goals

- Determine the success of grassland restoration efforts in California in relation to original project goals and compared to similar projects
- Determine management practices that are associated with greater success and are cost effective
- Determine the primary obstacles that restoration practitioners face in improving restoration success.

Results



- Over half of the projects undertaken were non-statutory (not mandated by law)
- Only 20% of projects had numeric goals – of statutory (mandated projects) only 7 of 13 (54%) had numeric goals – all numeric goals were based on native plant cover, directional goals were based on plant cover and other unmeasured ecosystem processes (e.g. carbon storage)
- Most projects with numeric goals, achieved their goals (4 of 7) or came close to achieving their goal (2 of 7) and only 1 did not approach their numeric target
- When compared against a standard mitigation goal (native cover = 25% after 6 years and species richness = 8), almost half of the projects, 14 of 32 (43.8%) would be considered successful while 3 of 32 projects are nearly successful (within 75% of target) and 15 of 32 would be considered unsuccessful (46.9%).
- If we use a standard classification of native grasslands as 10% native cover (Keeler-Wolf et al. 2007), 29 of 32 (90.1%) projects would be considered successful

Key Points

- Restoration is largely successful in restoring native grasslands and mostly successful if comparing to mitigation standards
- Grassland restoration is being undertaken for non-mitigatory reasons
- Projects can sustain their native cover and resist invasion even years after implementation with no trend in age

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References

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