CISA Student Showcase

Borrowing Owl Habitat Restoration at ASU Polytechnic

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Background

ASU's first four burrowing owls were introduced in the spring of 2021. Their habitat was built on an unused four acre lot located on the southwest corner of the Polytechnic campus. At the time, the site was free of vegetation making it an ideal habitat for the owls. However, in the spring of 2022, the habitat saw an influx in unwanted vegetation. The dominant weedy species include Tumbleweed (*Salsola tragus*), Globe Chamomile (*Oncosiphon piluliferum*), and Bermuda grass (*Cynodon dactylon*). These weeds grew to a height and density that blocked the owl's line of sight, preventing them from adequately monitoring for predators.

Project Objectives

- Control weeds by hand pulling and mechanical pulling
- Remove 100% of weeds within 16 feet of burrows
- Remove 50% or more of weeds in remainder of site
- Conduct owl census with Wild at Heart
- Introduce 35 native plant species via seeds and container plants
- Create a long-term management plan for ASU Facilities Maintenance

Before

After

Plants Introduced

Due to the sensitive nature of the burrowing owls, 35 different native shrubs, grasses, and wildflowers were carefully selected to ensure that the owl's habitat requirements and diet needs were fulfilled.

Perennial	Penstemon eatonii	**Annual**
Agave palmeri	Penstemon parryi	Castilleja purpurea
Ambrosia deltoides	Plantago insularis	Escholzia californica
Asclepias subulata	Senna covesii	Helianthus annuus
Atriplex canescens	Simmondsia chinensis	Kallstroemia grandiflora
Bahiopsis parishii	Sphaeralcea ambigua	Lesquerella insularis
Baileya multiradiata	**Grasses**	Lupinus arizonicus
Datura innoxia	Aristida purpurea	Machaeranthera tanacetifolia
Encelia farinosa	Bothriochloa barbinodis	Pectis papposa
Ericameria laricifolia	Bouteloua adscensionis	Phacelia campanularia
Ericameria nauseosa	Bouteloua gracilis	Salvia columbariae
Justicia californica	Muhlenbergia porteri	Zinnia acerosa
Larrea tridentata	Sporobolus cryptandra	

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