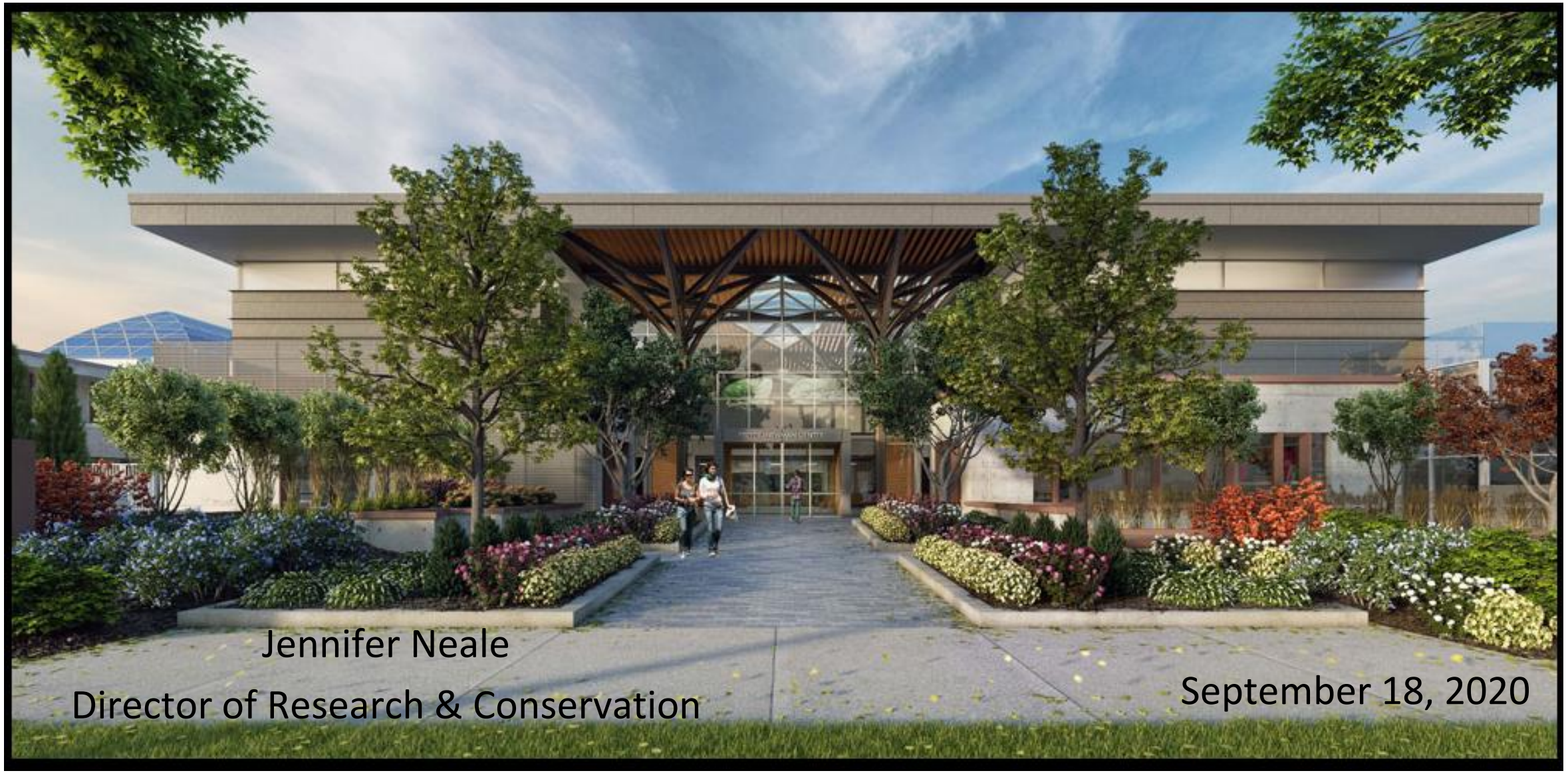
DENVER BOTANIC GARDENS

2020 Rare Plant Symposium update



Jennifer Neale

Director of Research & Conservation

September 18, 2020

The Hunt for the Funky Thistle

Collecting type specimens on Mt. Sherman

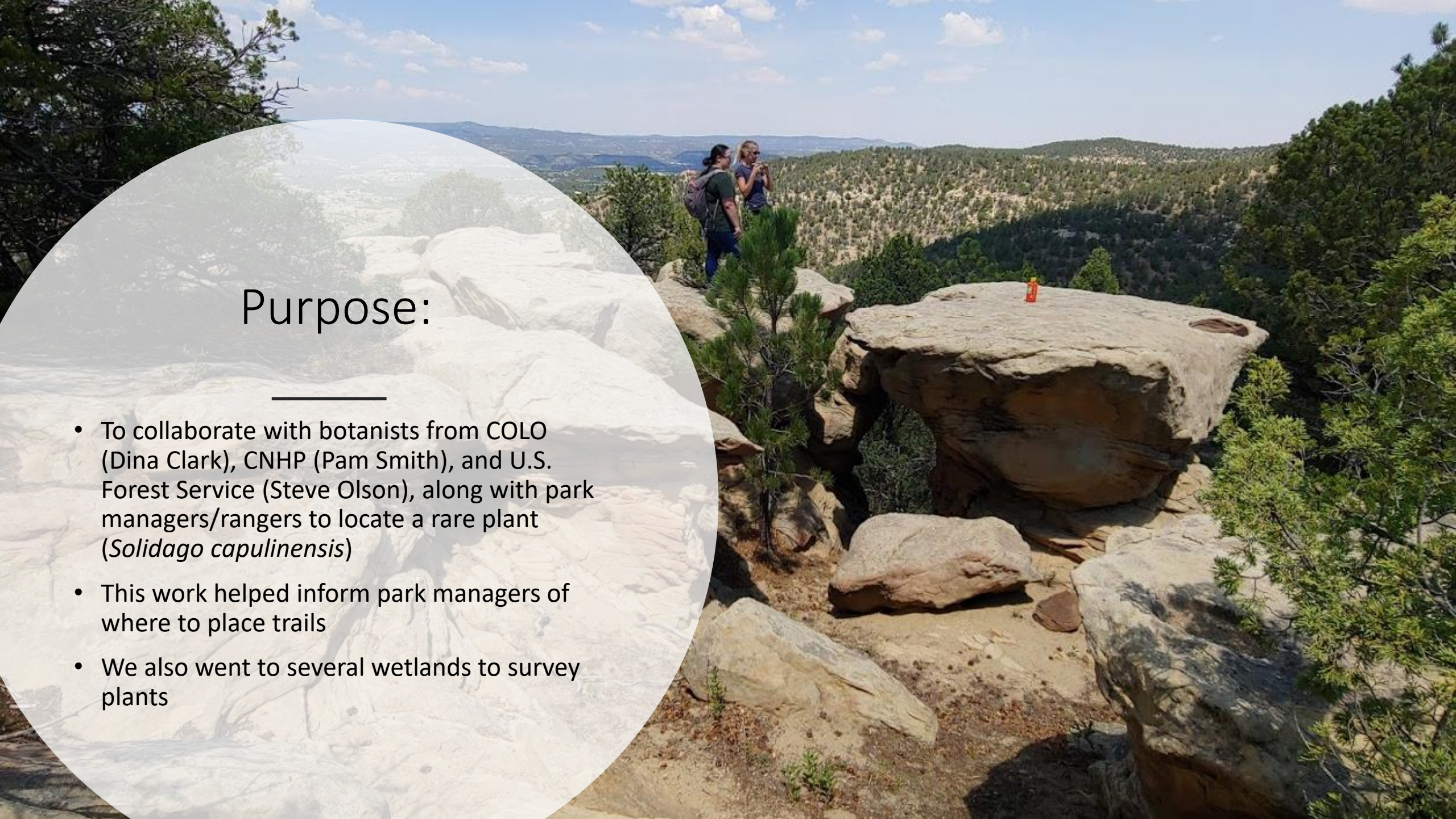
Dr. Jennifer Ackerfield

Purpose:

- To collect type specimens for a new species, *Cirsium funkae*, from Mt. Sherman
- Collaboration with U.S. Forest Service (Sheila Lamb, Steve Olson, Jed Smith), DBG, and CSU (Austin Rosen)
- We collected 3 individual plants to make type specimens from
- Of course, we had a lot of fun too!

The Crazy French Ranch

With these crazy botanists



Purpose:

- To collaborate with botanists from COLO (Dina Clark), CNHP (Pam Smith), and U.S. Forest Service (Steve Olson), along with park managers/rangers to locate a rare plant (*Solidago capulinensis*)
- This work helped inform park managers of where to place trails
- We also went to several wetlands to survey plants

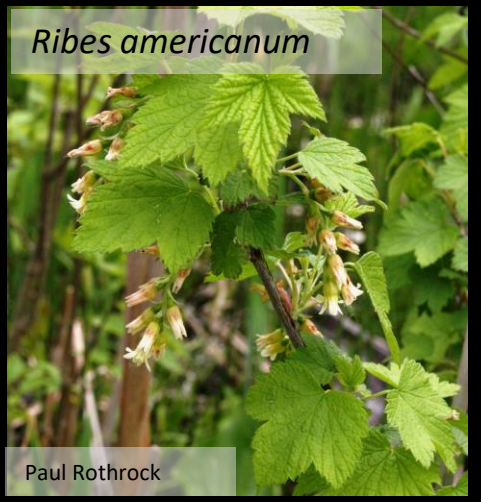
Collecting and surveying *Solidago capulinensis*

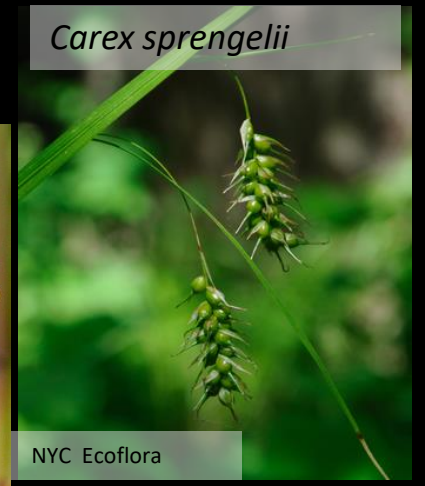
Also of note: *Oxalis violaceae, Cirsium parryi*

Some of the wetlands we visited

High Line Canal | Dr. Chrissy Alba

Sandstone Ranch | Dr. Chrissy Alba





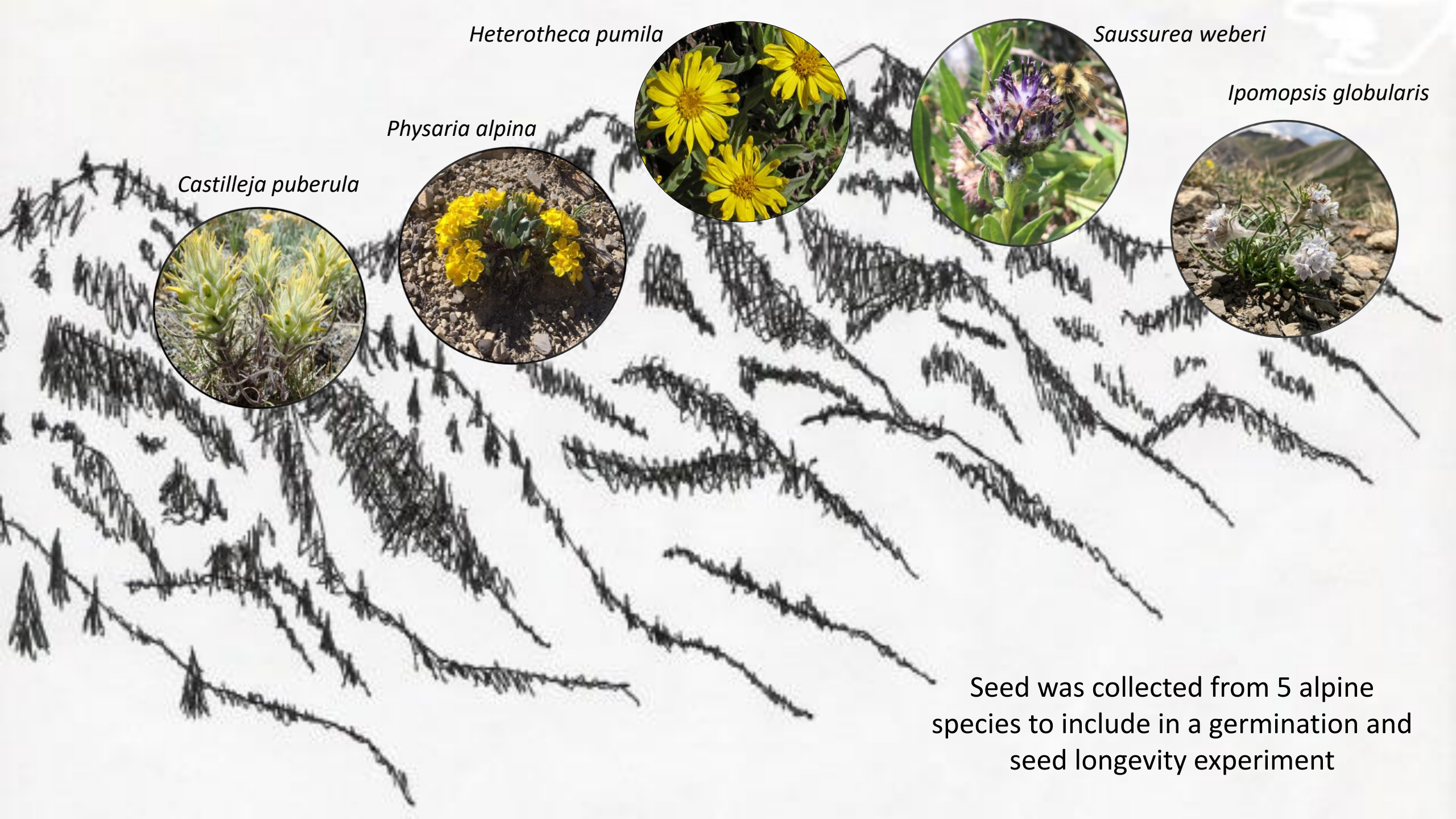
Heterotheca pumila

Saussurea weberi

Ipomopsis globularis

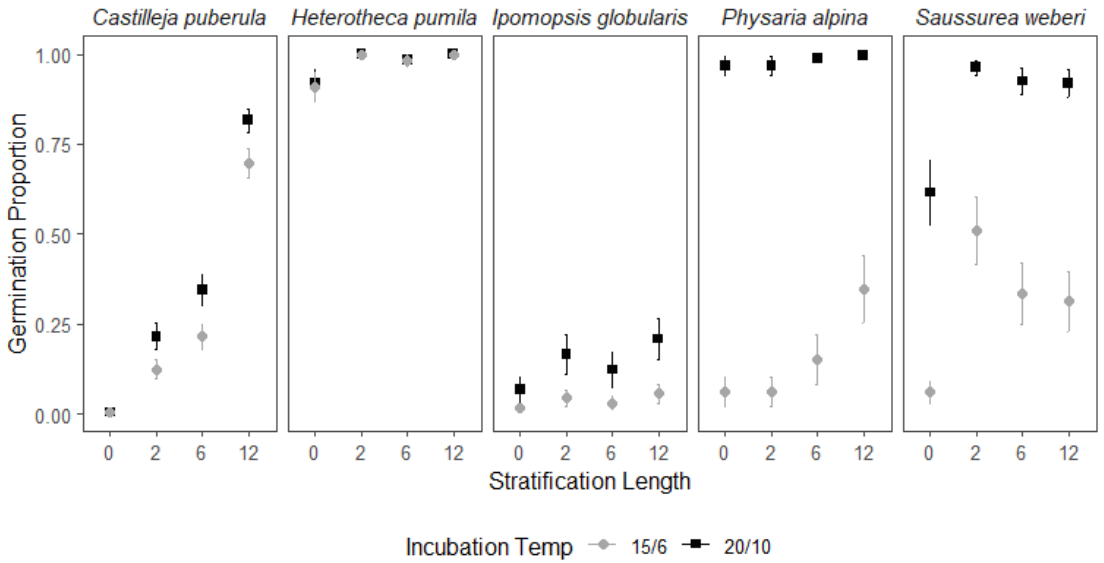
Physaria alpina

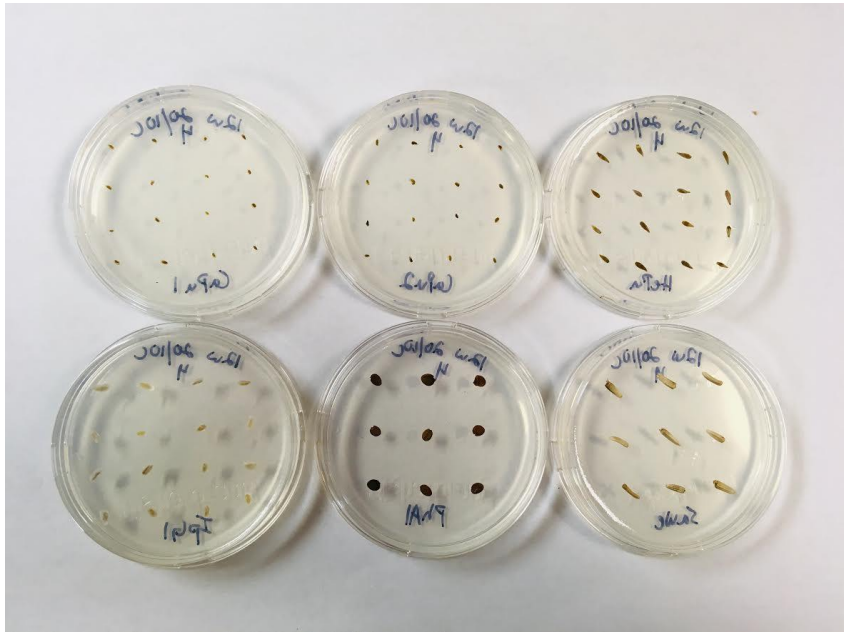
Castilleja puberula



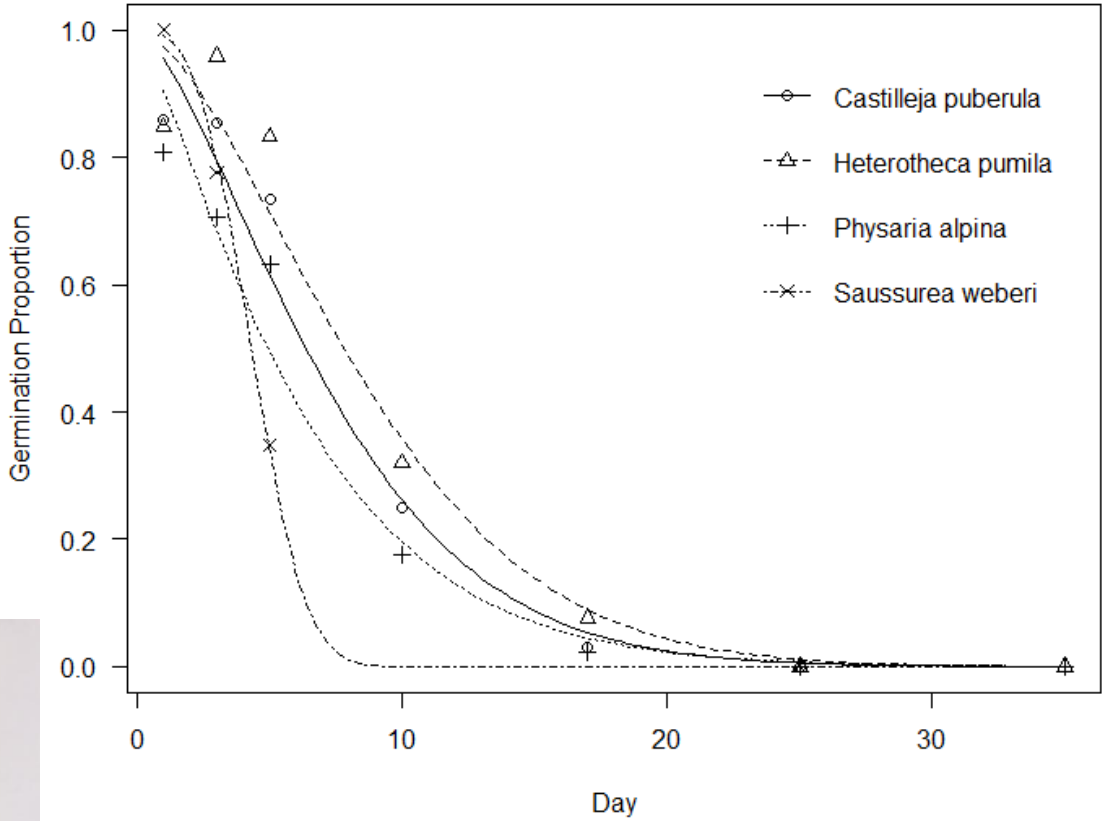
Seed was collected from 5 alpine species to include in a germination and seed longevity experiment

Germination Experiment





Longevity Experiment



Alex Seglias
Seed Conservation Research Associate

Eriogonum brandegeei seedling

- May 2020: Garden Park

- Michelle DePrenger-Levin, Research Associate Population Biology

No more than 10% of the seed 10% of the time

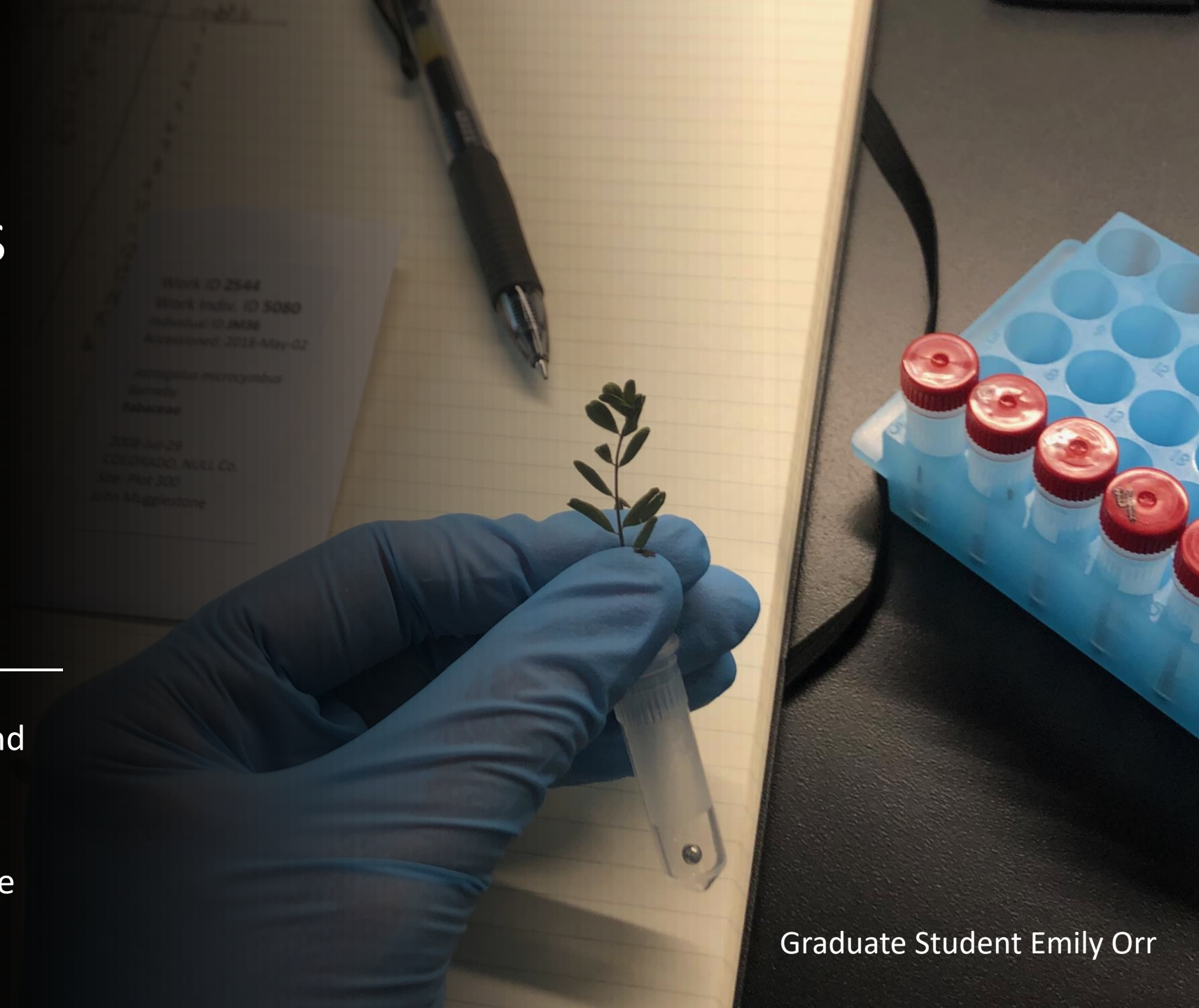

Sclerocactus glaucus

Does this thres*hold*?

1. Responses
2. Lifespans
3. Climate change
4. Practical considerations

Genetic analysis of *Astragalus microcymbus*, a rare narrow endemic.

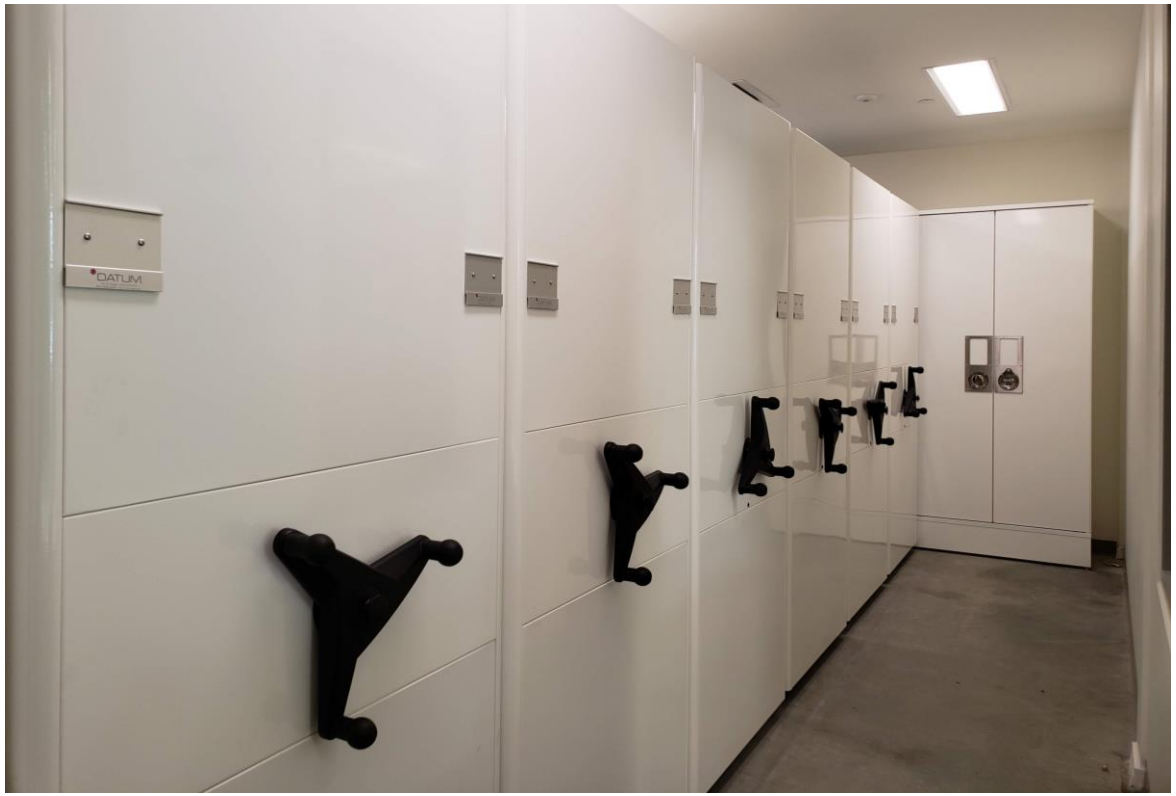
Aim: to characterize the extent and distribution of population genetic structure in order to inform and complement the long-term management of the species by the Gardens and the BLM.



Graduate Student Emily Orr

Natural History Collections space


SAM MITCHEL HERBARIUM OF FUNGI



Ample Room for growth

Ecology Lab

Genetics and Tissue Culture Lab


KHD00023784
KHD00023706
KHD00015697
KHD00023456

Questions?

Denver Botanic Gardens

Science & Research

Botanicgardens.org

Find all of us under Experts – Scientists

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