



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:

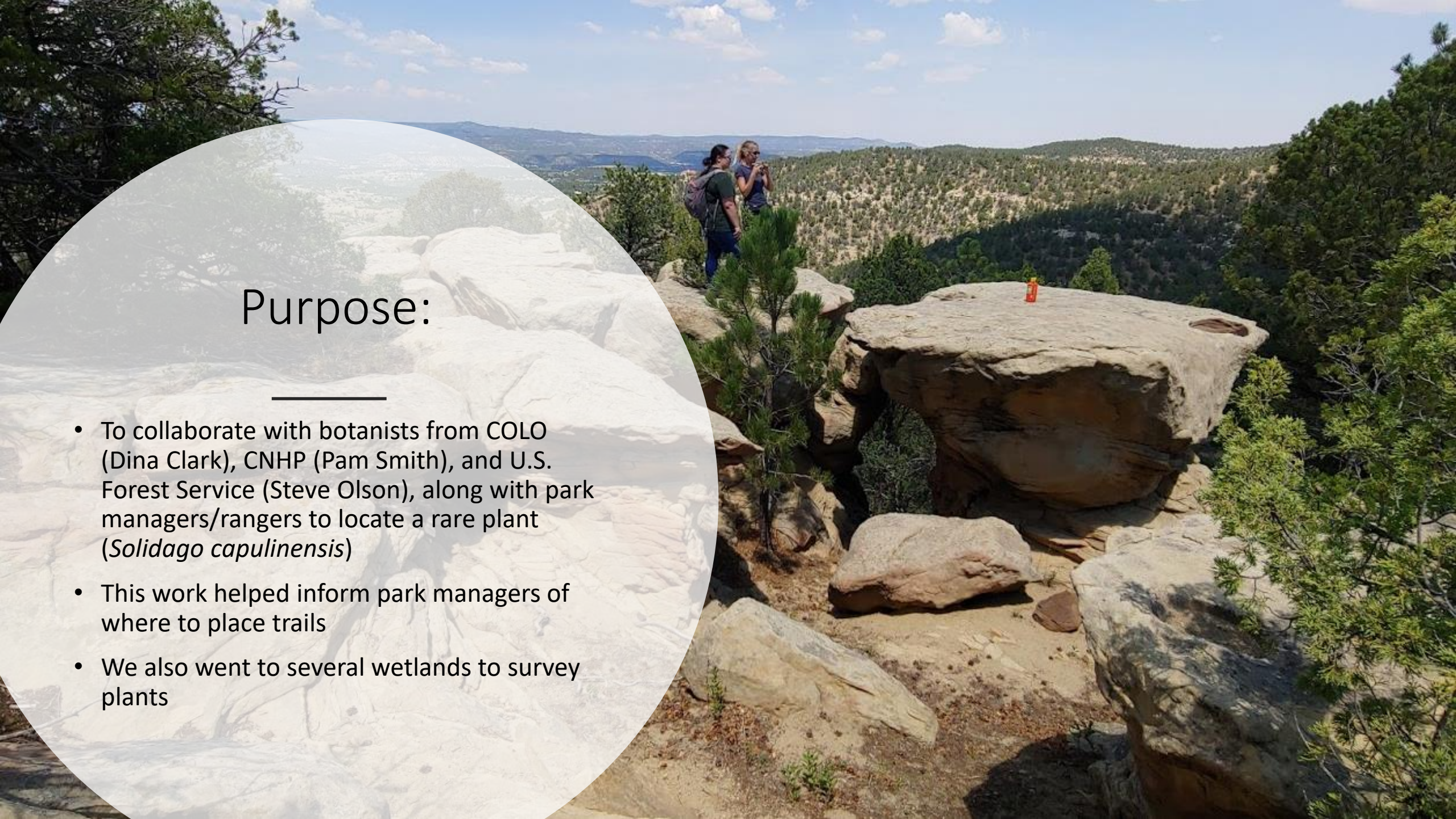
- To collect type specimens for a new species, *Cirsium funkae*, from Mt. Sherman
- Collaboration with U.S. Forest Service (Sheila Lamb, Steve Olson, Jed Smith), DBG, and CSU (Austin Rosen)
- We collected 3 individual plants to make type specimens from
- Of course, we had a lot of fun too!





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 violacea*,
Cirsium parryi

Some of the
wetlands we
visited



High Line Canal | Dr. Chrissy Alba

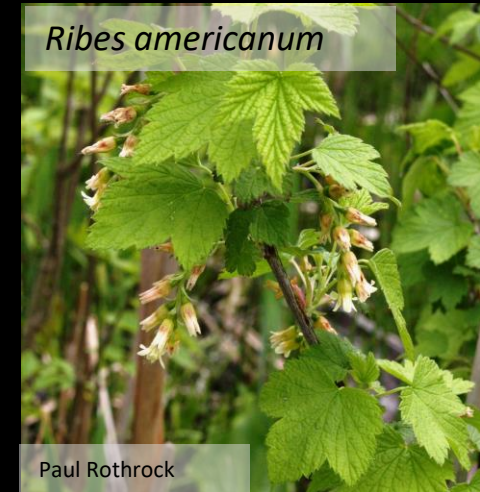


Sue Conahan



Smilax lasioneura

Sandstone Ranch | Dr. Chrissy Alba



Heterotheca pumila



Saussurea weberi



Ipomopsis globularis



Physaria alpina

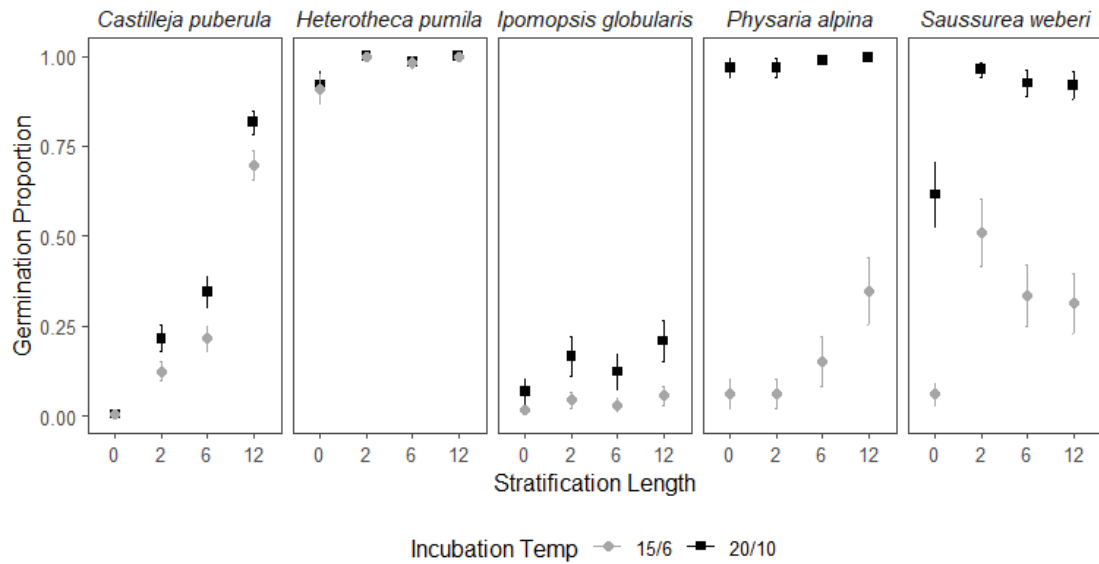


Castilleja puberula

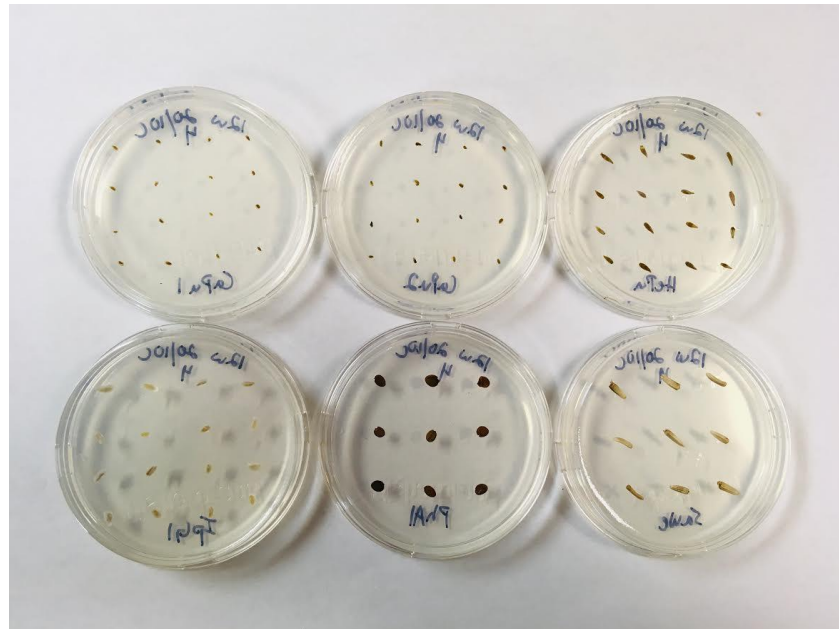
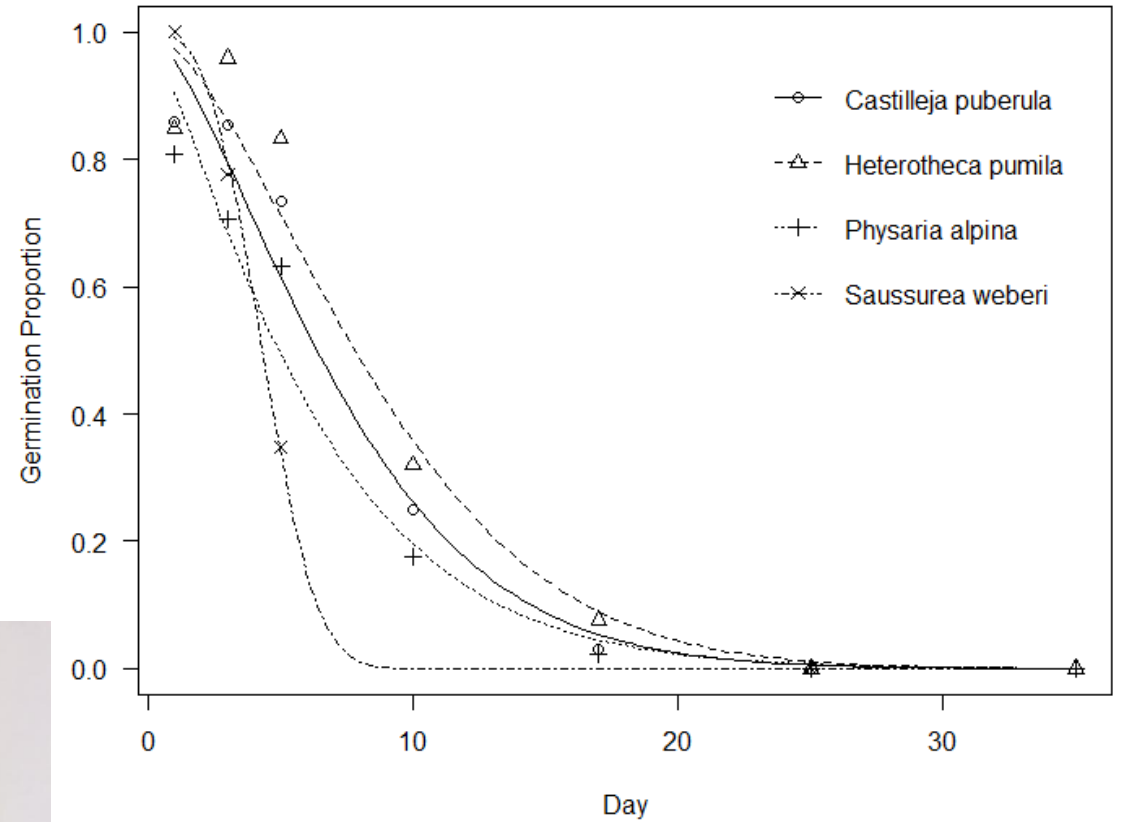


Seed was collected from 5 alpine species to include in a germination and seed longevity experiment

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

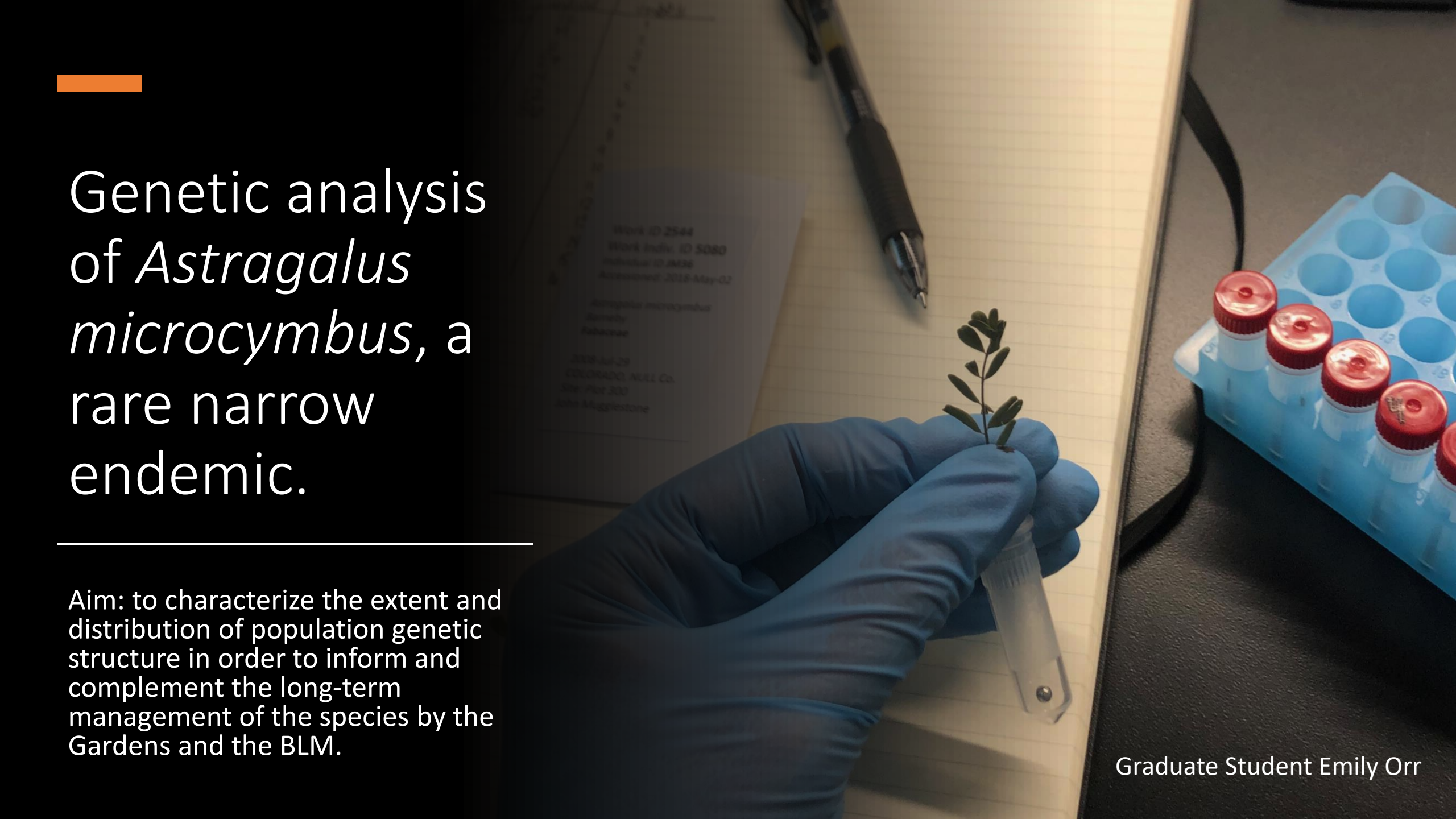




Sclerocactus glaucus

Does this *threshold*?

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

KATHRYN KALMBACH
VASCULAR PLANT HERBARIUM

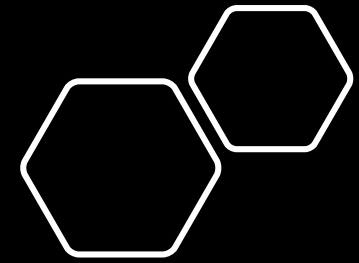
Natural History Collections space







Ample Room for growth



Ecology Lab



Genetics and
Tissue Culture
Lab





Questions?

Denver Botanic Gardens
Science & Research
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Find all of us under Experts – Scientists

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