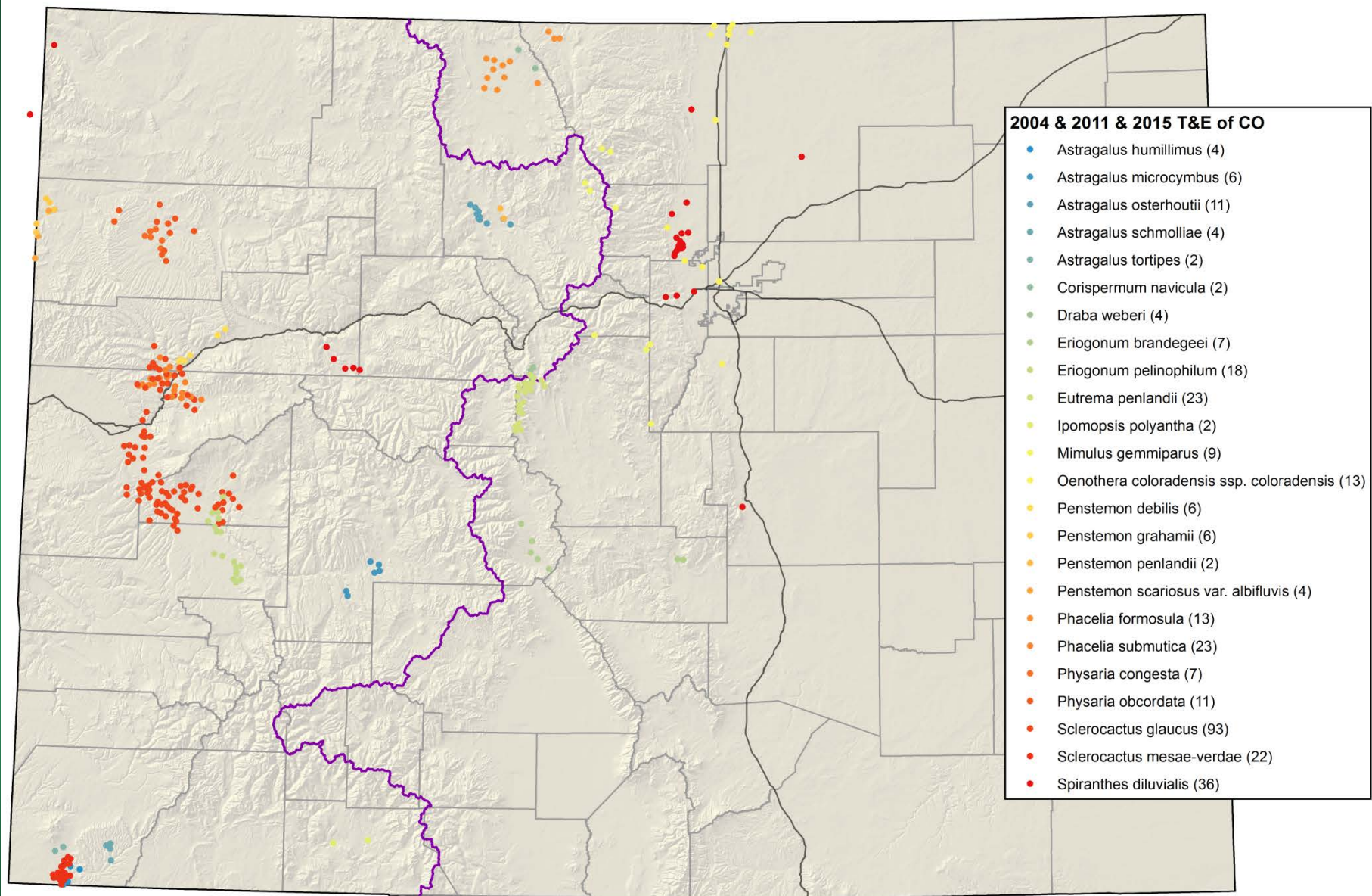
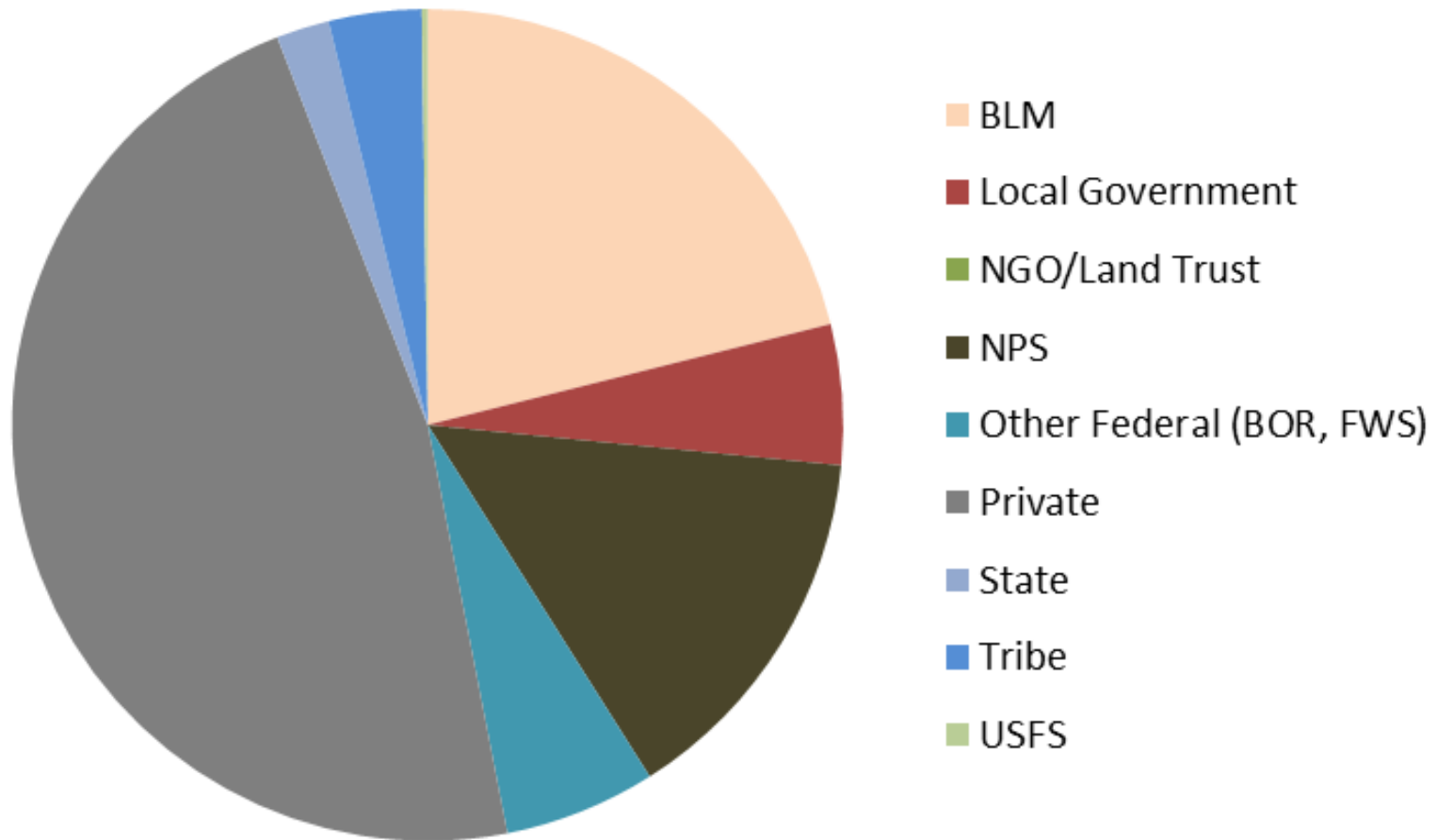


2019  
Colorado Rare Plant Symposia  
Colorado  
T, E & C and Petitioned Plant  
Species

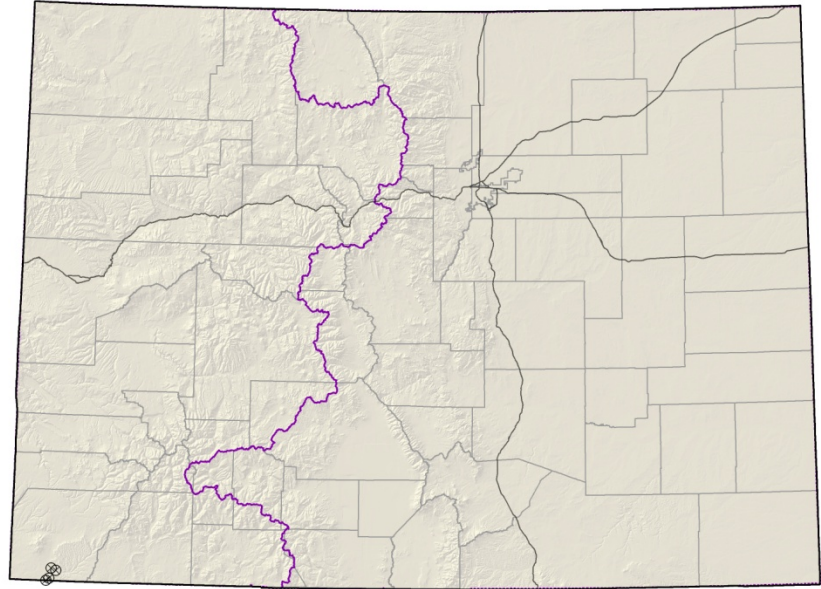


Location of Colorado T, E,C and Petitioned Plant Species

# Land Ownership of T&E Plant Species of Colorado



# *Astragalus humillimus* Mancos milkvetch



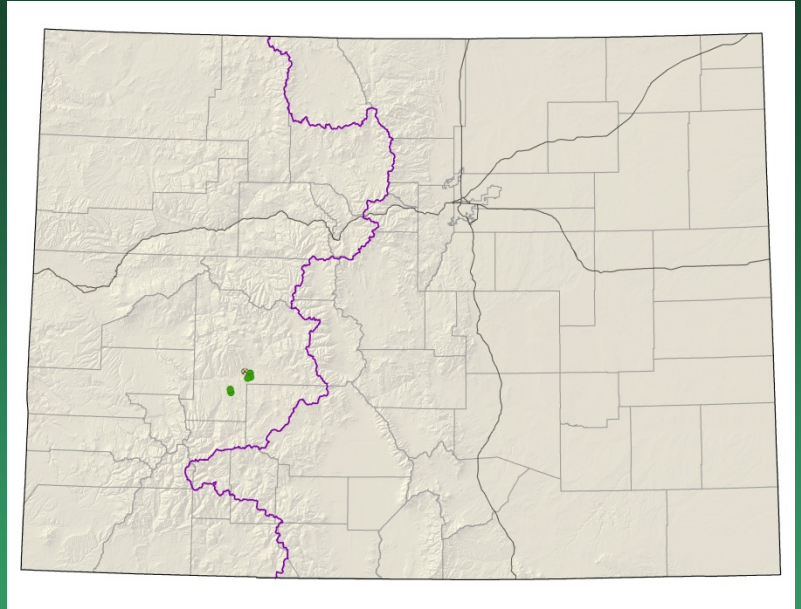
- Federal status: Endangered
- Heritage ranks: G1/S1
- Global distribution: New Mexico and Colorado (Montezuma County)
- Elevation range: 5,240-6160 ft.
- Last observed in Colorado: ??
- Colorado occurrences: 4 (all are historical)
- Colorado individuals: 25,000
- Primary threats: mineral, oil, and gas development, seismic exploration
- Land ownership/management: tribe

*Astragalus humillimus*



# *Astragalus microcymbus*

## Skiff milkvetch



- Federal status: Candidate, BLM sensitive
- Heritage ranks: G1/S1
- Global distribution: Colorado endemic, South Beaver Creek, Gunnison and Saguache counties.
- Elevation range: 7,600-8,500 ft.
- Last observed: 2019
- Occurrences: 8 (1 is historical)
- Individuals: 17,800
- Primary threats: recreation, grazing by cattle and rabbits, mining, residential development
- Land ownership/management: BLM, private, State

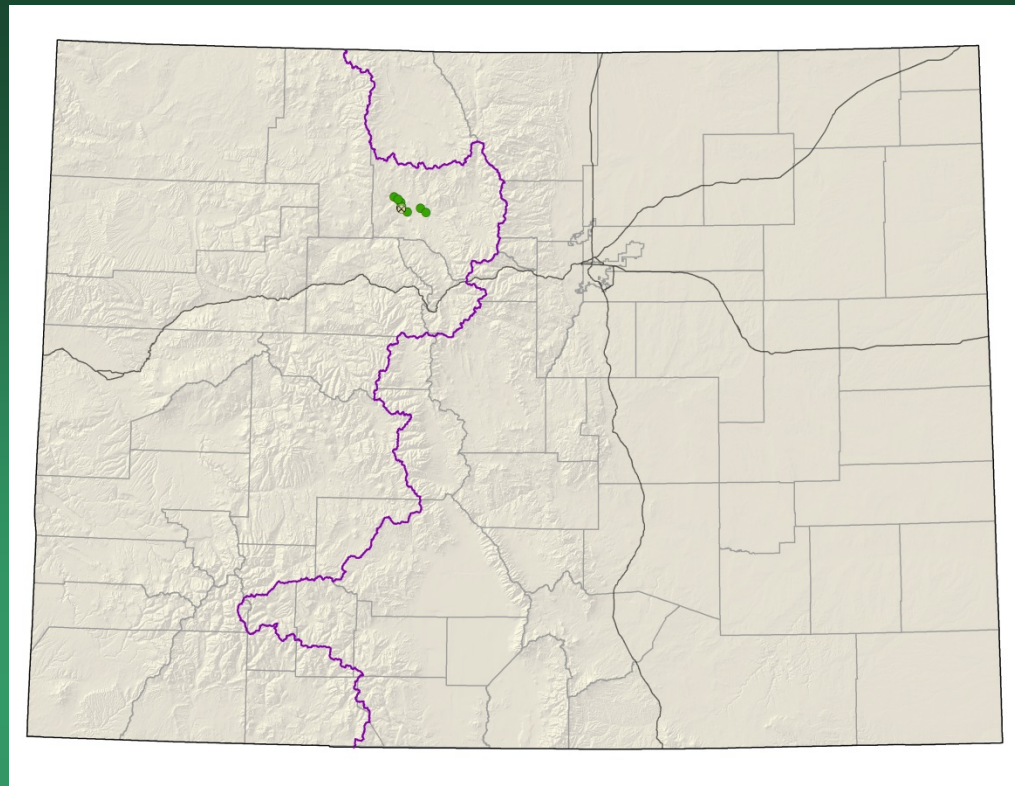
*Astragalus microcymbus*



# *Astragalus osterhoutii* Osterhout milkvetch

## Conservation Action Plan

- Federal status: Endangered
- Heritage ranks: G1/S1
- Global distribution: Colorado endemic (Grand County)
- Elevation range: 7,370-8,000 ft.
- Last observed: 2019
- Occurrences: 6 (1 historical)
- Individuals: 10,000-25,000
- Primary threats: recreation, mining, oil and gas development
- Land ownership/management: BLM, state, private

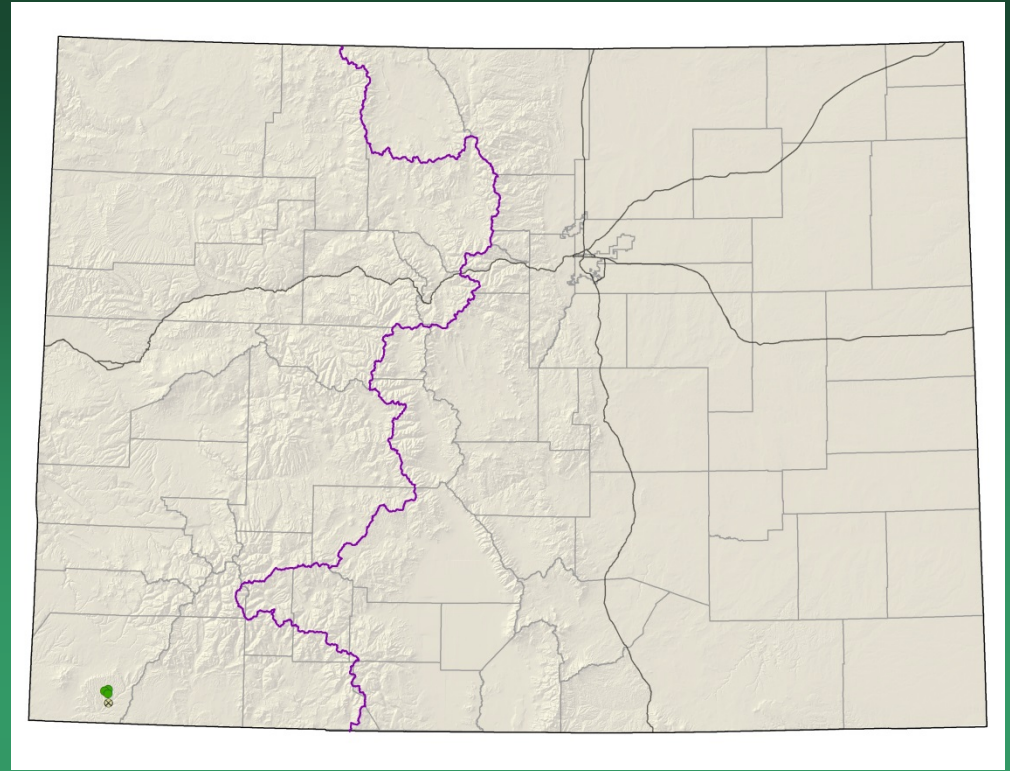


*Astragalus osterhoutii*



# *Astragalus schmolliae*

## Chapin Mesa milkvetch



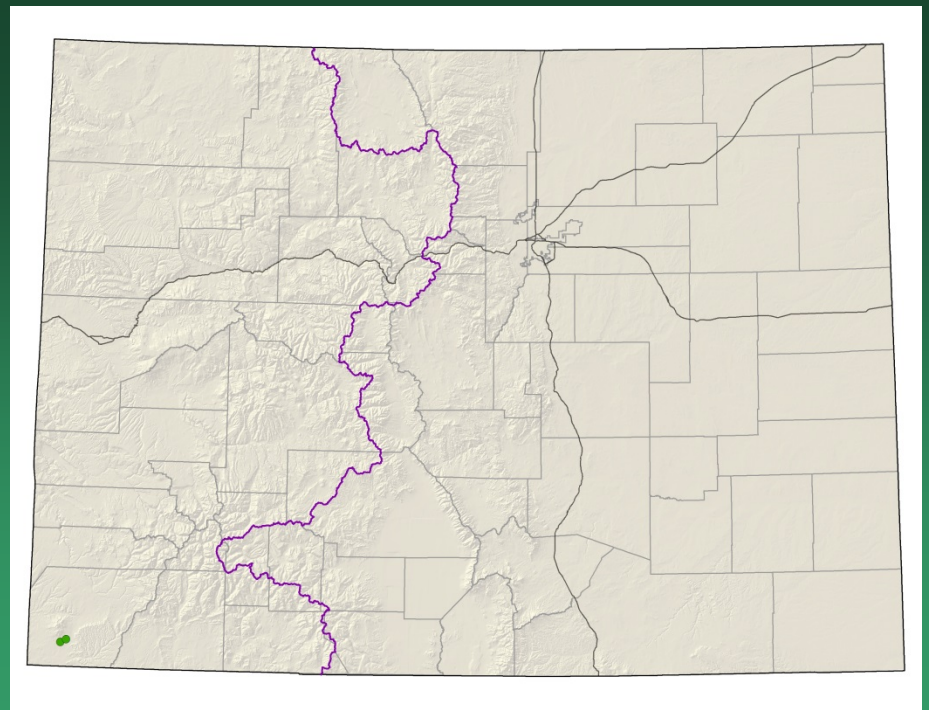
- Federal status: Candidate
- Heritage ranks: G1/S1
- Global distribution: Colorado endemic (Chapin Mesa - Montezuma County)
- Elevation range: 5,760-7,430 ft.
- Last observed: 2019
- Occurrences: 4 (1 is historical)
- Individuals: 294,499 in Mesa Verde, Tribal lands unknown
- Primary threats: Noxious weed invasions, Park developments, grazing and road construction outside NP
- Land ownership/management: NPS, tribe

*Astragalus schmolliae*



# *Astragalus tortipes*

## Sleeping Ute milkvetch



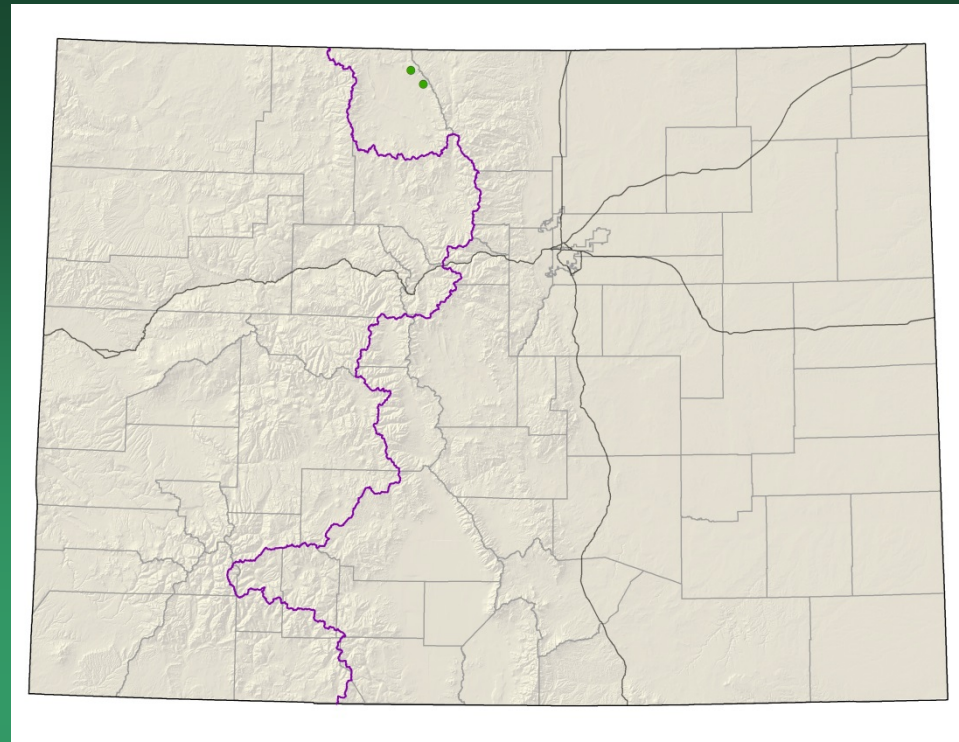
- Federal status: Former Candidate
- Heritage ranks: G1/S1
- Global distribution: Colorado endemic (Montezuma County)
- Elevation range: 5,450-5,700 ft.
- Last observed: 2015
- Occurrences: 2
- Individuals: 2,000-3,000
- Primary threats: McPhee Reservoir canals, agricultural development
- Land ownership/management: tribe

*Astragalus tortipes*



# *Corispermum navicula*

## North Park bugseed

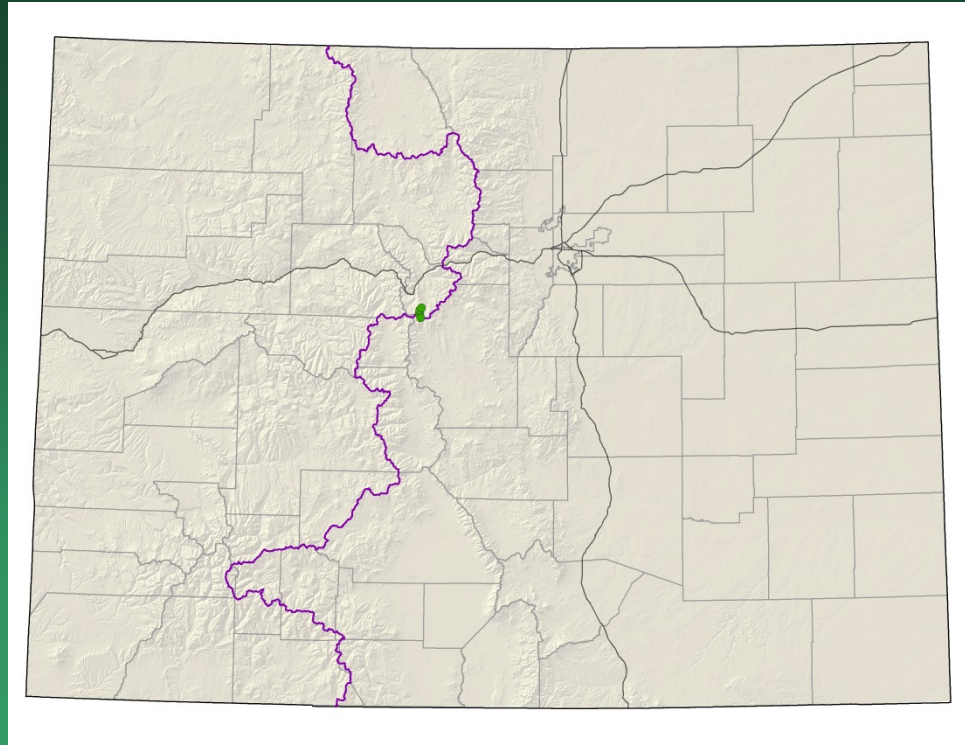


- Federal status: BLM sensitive, and petitioned for federal listing
- Heritage ranks: G1?/S1
- Global distribution: Colorado endemic (Jackson County), possibly Oklahoma?
- Elevation range: 8,230-8,730 ft.
- Last observed: 2019
- Occurrences: 2
- Individuals: common locally
- Primary threats: off-road vehicle use
- Land ownership/management: BLM, state

*Corispermum navicula*



# *Draba weberi* Weber's draba



- Federal status: USFS sensitive, and petitioned for federal listing
- Heritage ranks: G1/S1
- Global distribution: Colorado endemic, Park and Summit counties
- Elevation range: 11,120-11,160 ft.
- Last observed: 2019
- Occurrences: 4
- Individuals: 100
- Primary threats: road and dam construction and maintenance, environmental stochasticity, recreation, mining, noxious weeds, climate change
- Land ownership/management: private, USFS

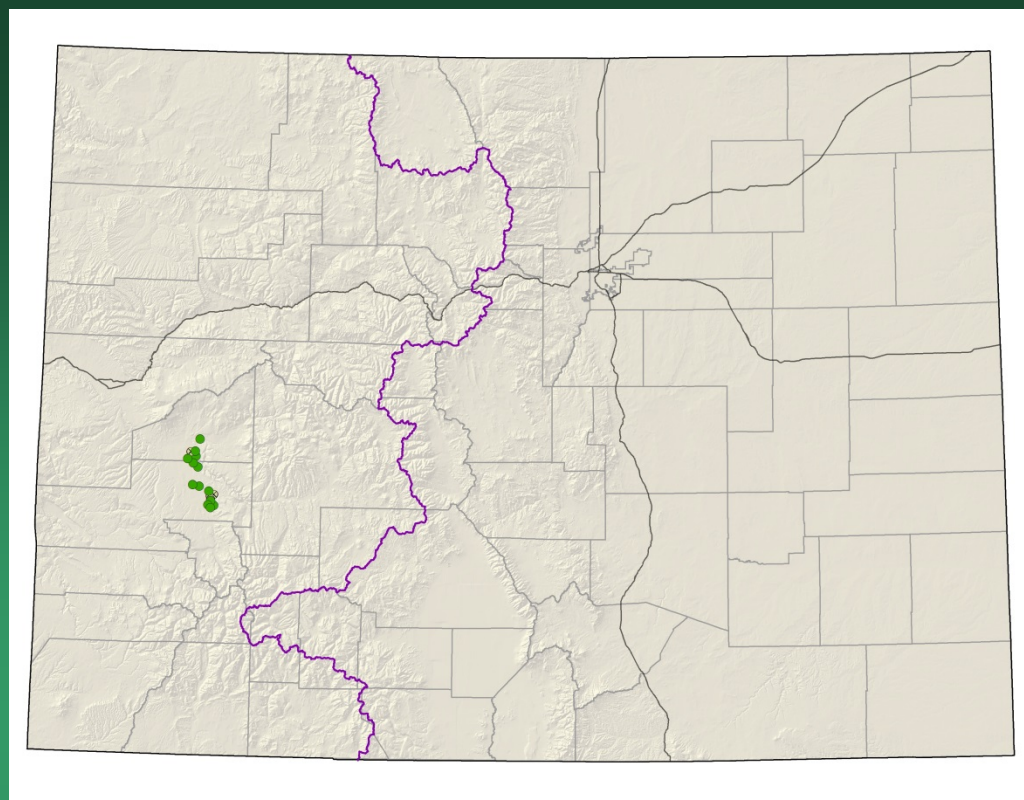


*Draba weberi*



# *Eriogonum pelinophilum*

## Clay-loving wild buckwheat



- Federal status: Endangered
- Heritage ranks: G2/S2
- Global distribution: Colorado endemic (Delta and Montrose counties)
- Elevation range: 5,220-6,400 ft.
- Last observed: 2019
- Occurrences: 20 (4 are historical)
- Individuals: 280,000
- Primary threats: residential and agricultural developments, ORV use, overgrazing, oil and gas exploration
- Land ownership/management: BLM, private, state

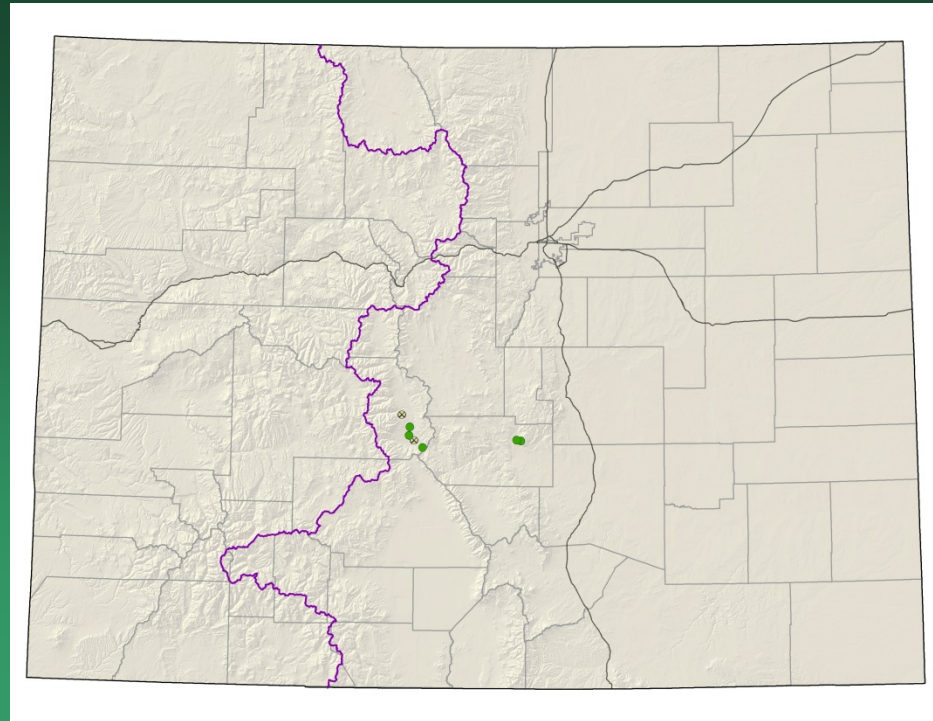
*Eriogonum pelinophilum*



# *Eriogonum brandegeei* Brandegee's buckwheat

## Conservation Action Plan

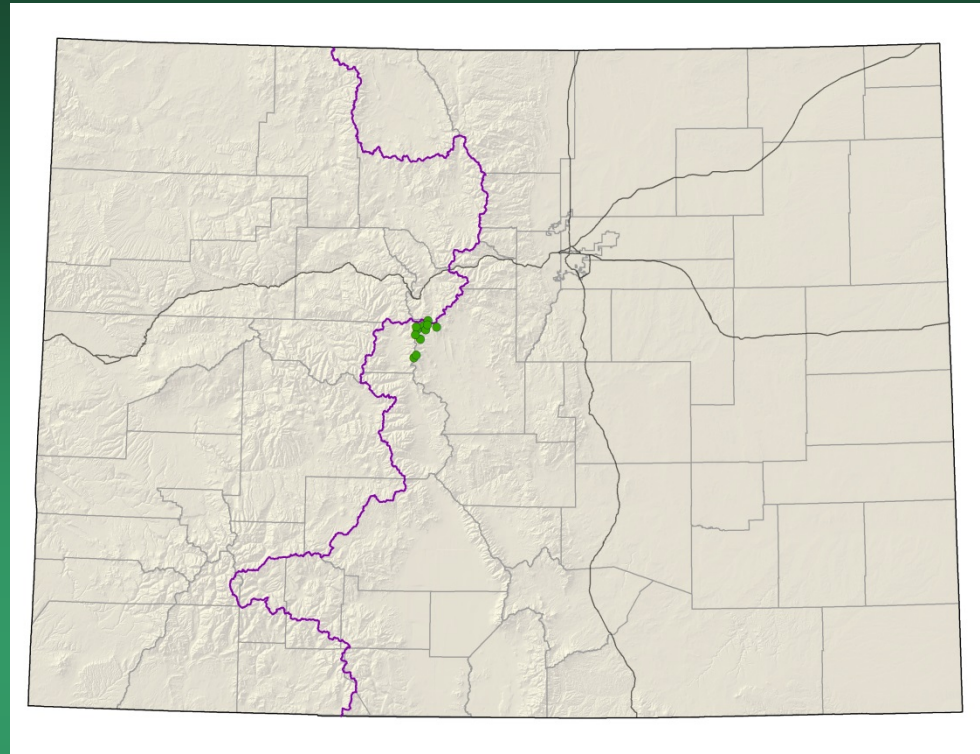
- Federal status: USFS & BLM Sensitive, and petitioned for federal listing
- Heritage ranks: G1G2/S1S2
- Global distribution: Colorado endemic, Chaffee and Fremont counties
- Elevation range: 5,715-8,650 ft.
- Last observed: 2019
- Individuals: 35,000+
- Occurrences: 9 (2 are historical)
- Primary threats: off-road vehicle use and other recreation, residential and commercial development, timbering, mining, highway maintenance, weeds, grazing
- Land ownership/management: BLM, state, private, USFS





*Eriogonum brandegeei*

*Eutrema penlandii*  
Mosquito Range mustard



- Federal status: Threatened
- Heritage ranks: G1G2/S1S2
- Global distribution: Colorado endemic (Lake, Park, and Summit counties)
- Elevation range: 11,975-13,350 ft.
- Last observed: 2019
- Occurrences: 24
- Individuals: 20,000+
- Primary threats: mining, recreation
- Land ownership/management: BLM, private, USFS

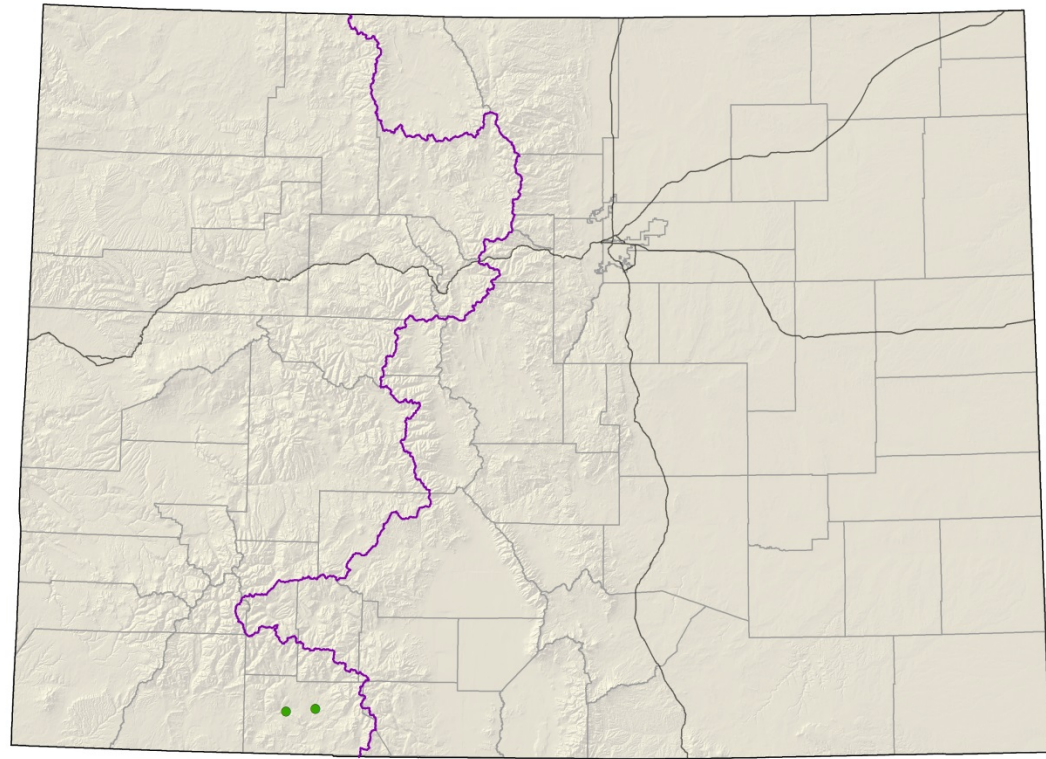
*Eutrema penlandii*



# *Ipomopsis polyantha* Pagosa gilia

## Conservation Action Plan

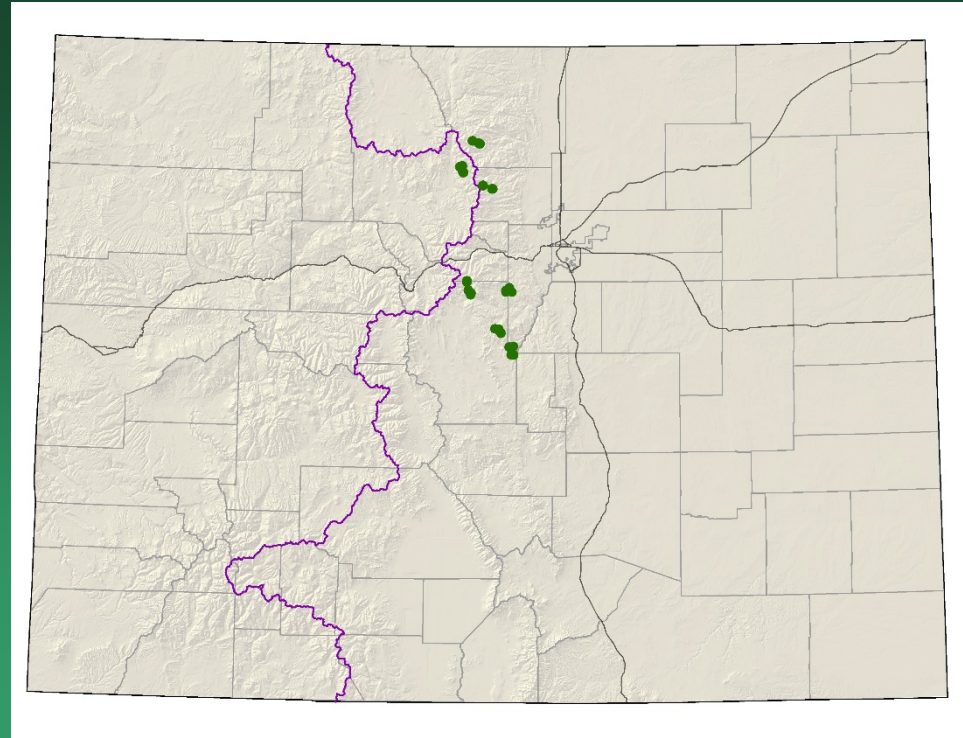
- Federal status: Endangered
- Heritage ranks: G1/S1
- Global distribution: Colorado endemic (Archuleta County)
- Elevation range: 6,765-7,360 ft.
- Last observed: 2019
- Individuals: ~300,000
- Occurrences: 2
- Primary threats: residential development, road construction and maintenance, overgrazing
- Land ownership/management: private, state, BLM



*Ipomopsis polyantha*



*Mimulus gemmiparus*  
Budding monkeyflower  
(Rocky Mnt. monkeyflower)



- Federal status: USFS sensitive, and petitioned for federal listing
- Heritage ranks: G1/S1
- Global distribution: Colorado endemic, Boulder, Clear Creek, Jefferson, Grand, and Larimer counties
- Elevation range: 8,360-11,200 ft.
- Last observed: 2017
- Occurrences: 12 (1 historical); plus 11 reintroduced
- Individuals: >500,000
- Primary threats: recreational activities, trampling, competition from other plants, interference with hydrology
- Land ownership/management: NPS, state, USFS

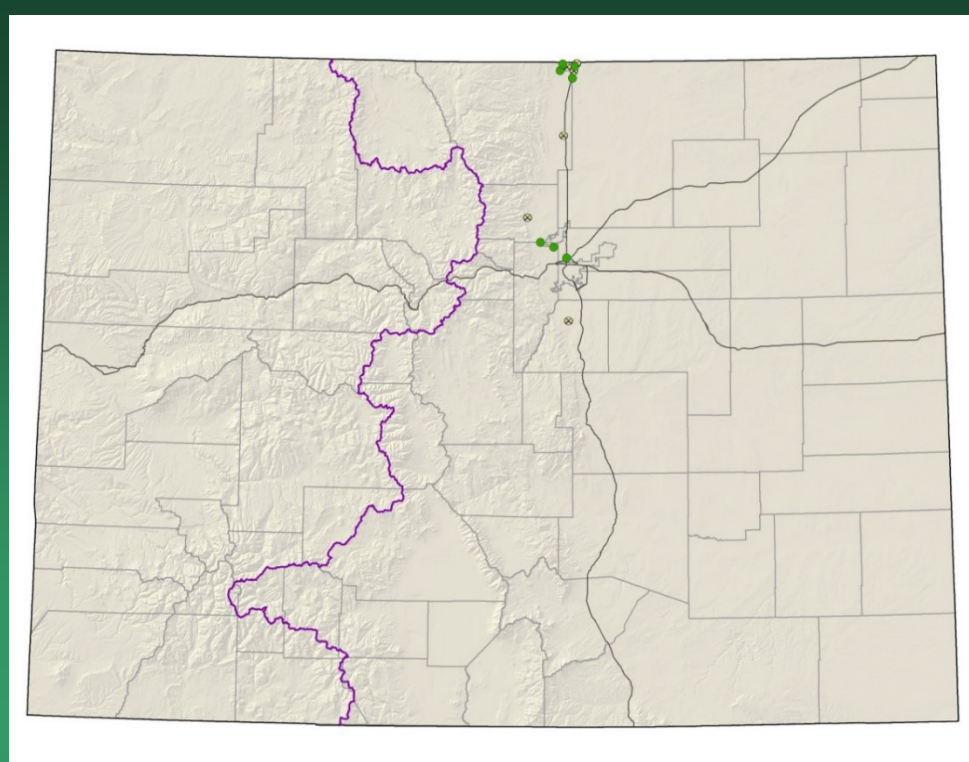


*Mimulus gemmiparus*

# *Oenothera coloradensis*

= *Gaura neomexicana* ssp. *coloradensis*

## Colorado butterfly plant



- Federal status: Threatened  
(Proposed for delisting)
- Heritage ranks: G3T2/S1
- Global distribution: Wyoming, Nebraska, and Colorado (Adams, Boulder, Douglas, Jefferson, Larimer and Weld counties)
- Elevation range: 4,860-6,380 ft.
- Last observed in Colorado: 2017
- Colorado occurrences: 11 (4 historical)
- Colorado individuals: 18,000
- Primary threats: grazing, hydrological alterations, weeds, Interstate 25, oil & gas
- Land ownership: local government, NGO/land trust, federal, state, private



*Oenothera coloradensis* ssp. *coloradensis*

# *Pediocactus knowltonii*

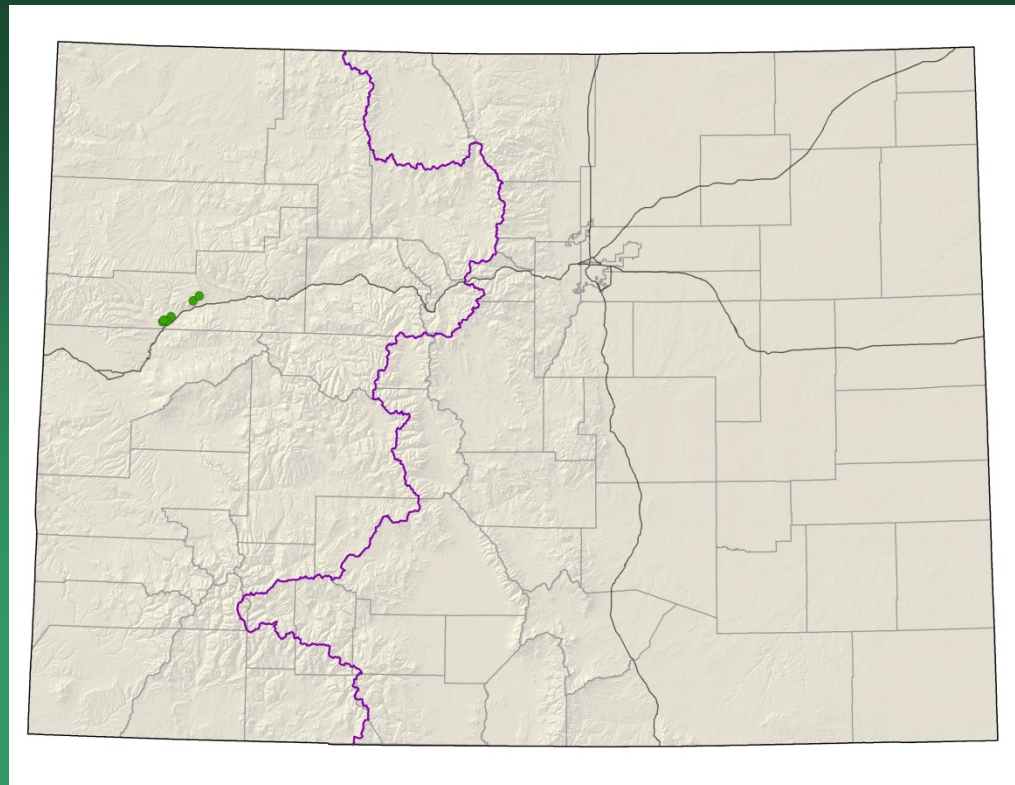
## Knowlton's cactus

**GIS analysis determined that the species does not actually occur in Colorado.**

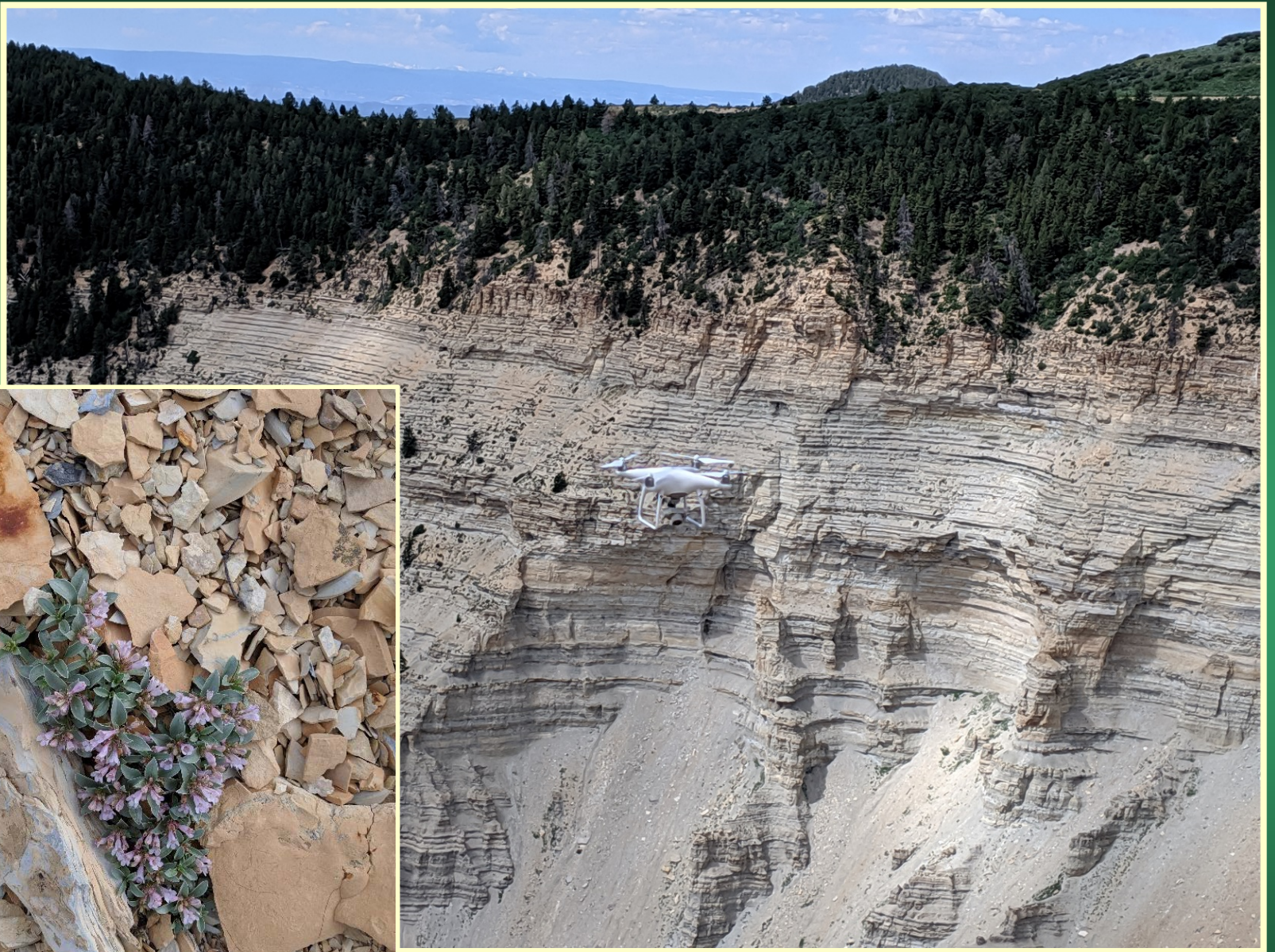
- Federal status: Endangered
- Heritage ranks: G1/SNA
- Global distribution: New Mexico
- Last observed in Colorado:
- Colorado occurrences: 0
- Individuals: 9,000 in NM
- Primary threats: cactus collection
- Land ownership: private, Ute



*Penstemon debilis*  
Parachute penstemon

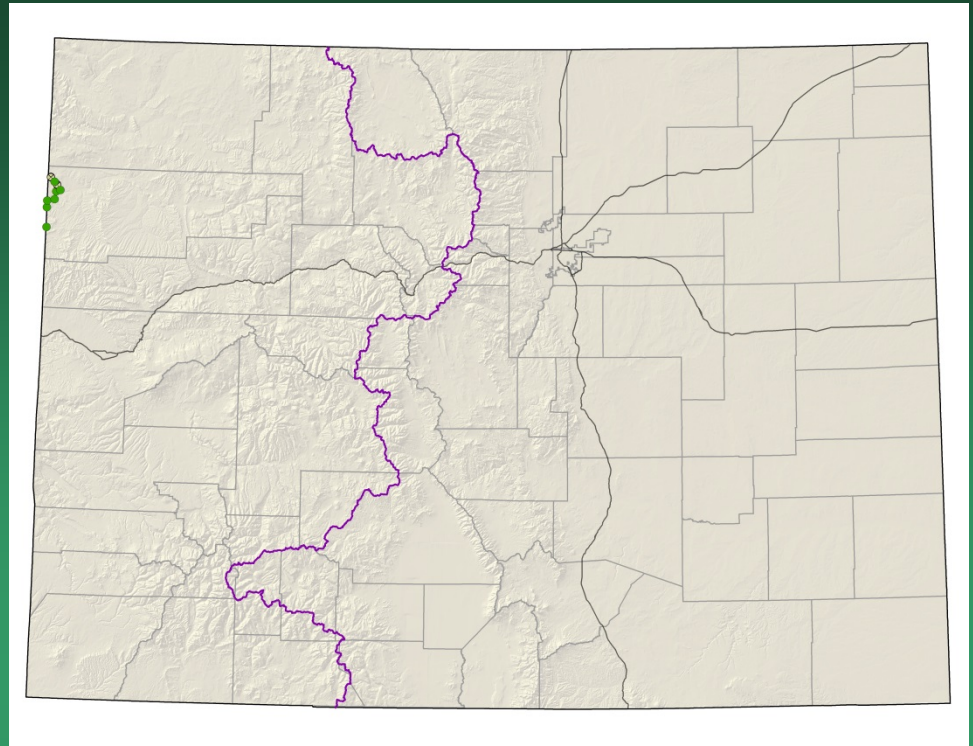


- Federal status: Threatened
- Heritage ranks: G1/S1
- Global distribution: Colorado endemic (Garfield County)
- Elevation range: 5,600-9,170 ft.
- Last observed: 2019
- Occurrences: 6
- Individuals: 4000-6000
- Primary threats: oil and gas development, oil shale development
- Land ownership/management: BLM, private



*Penstemon debilis*

*Penstemon grahamii*  
Graham beardtongue



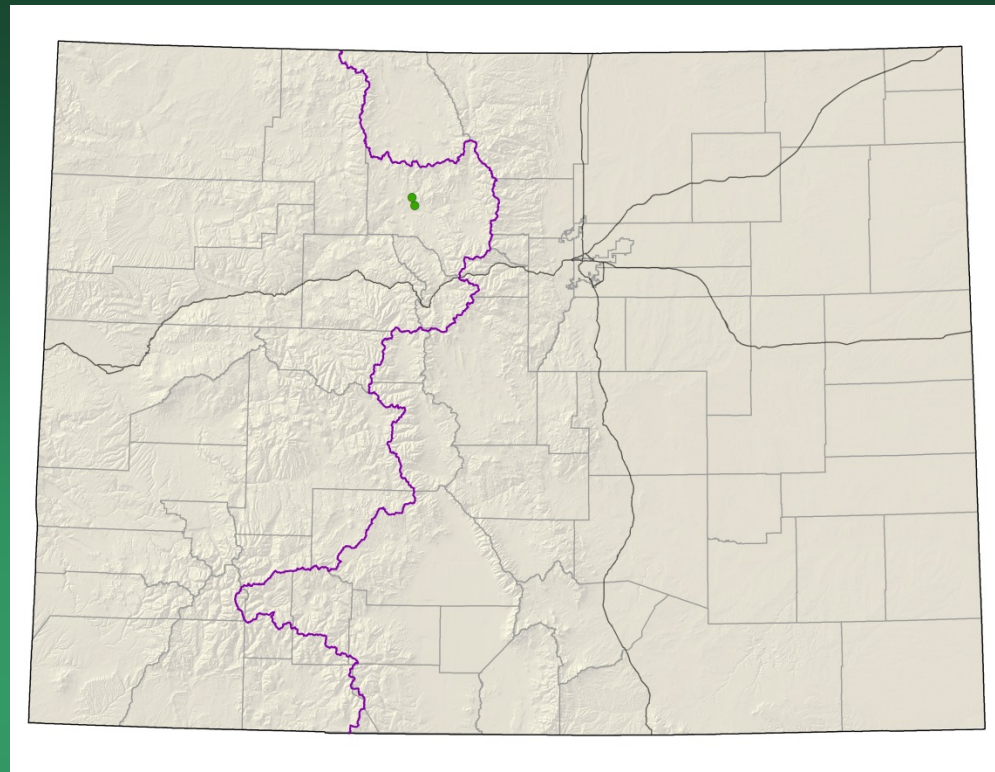
- Federal status: BLM sensitive, proposed for federal listing
- Heritage ranks: G2/S1
- Global distribution: Utah and Colorado (Rio Blanco County)
- Elevation range: 5,120-6,380ft.
- Last observed in Colorado: 2019
- Colorado occurrences: 8 (2 are historical)
- Colorado individuals: 5,000
- Primary threats: oil and gas development, overgrazing
- Land ownership/management: BLM, private

*Penstemon grahamii*



*Penstemon penlandii*  
Penland beardtongue

Conservation Action Plan

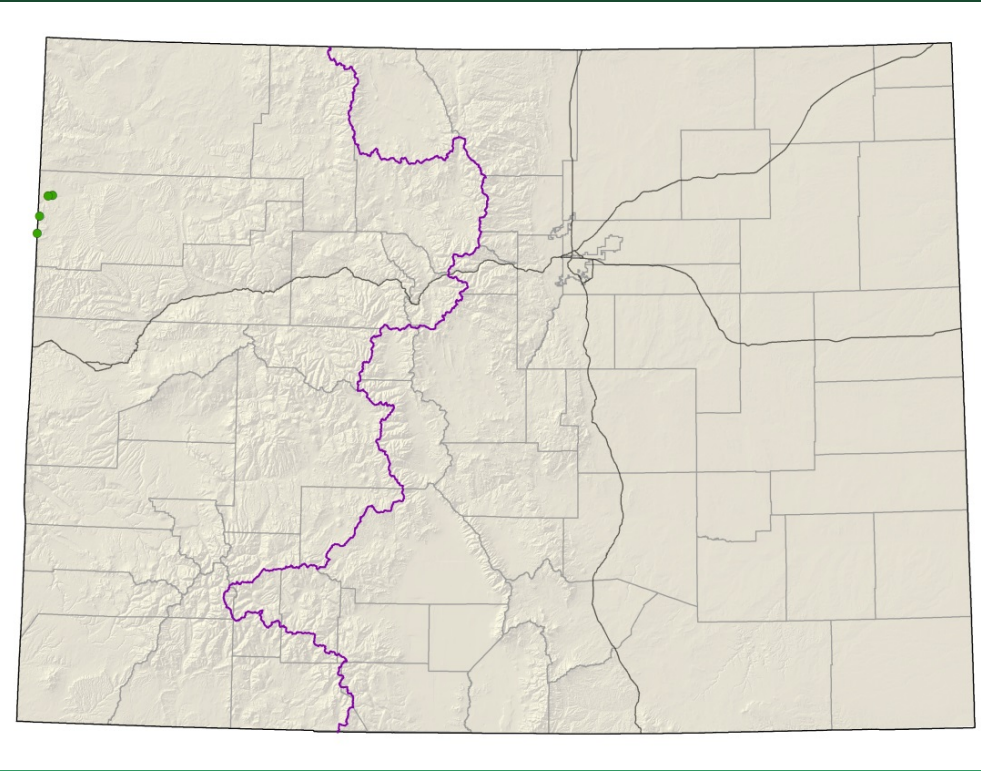


- Federal status: Endangered
- Heritage ranks: G1/S1
- Global distribution: Colorado endemic (Grand County)
- Elevation range: 7400-7900 ft.
- Last observed: 2019
- Occurrences: 2
- Individuals: 12,800-1,400,000 (5000/acre)
- Primary threats: road maintenance (grading, spraying, snow plowing), ORV use
- Land ownership/management: BLM, private

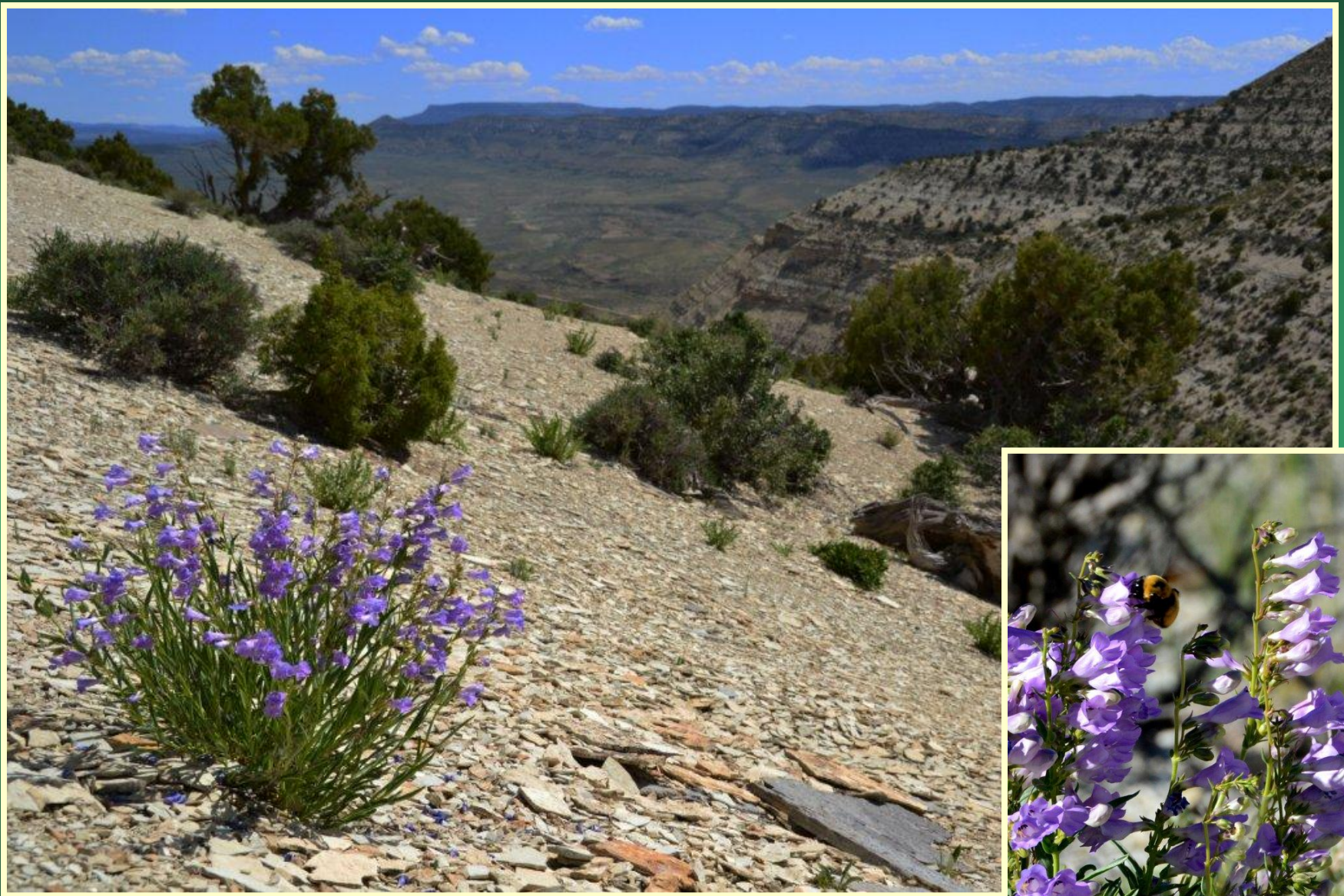
*Penstemon penlandii*



*Penstemon scariosus* var.  
*albifluvis* (= *P. albifluvis*)  
White River penstemon



- Federal status: BLM sensitive, Proposed for federal listing
- Heritage ranks: G4T1/S1
- Global distribution: Utah and Colorado (Rio Blanco County)
- Elevation range: 5700-6700 ft.
- Last observed in Colorado: 2019
- Colorado occurrences: 5
- Colorado individuals: 3400+
- Primary threats: overgrazing, oil and gas development, ORV use
- Land ownership/management: BLM, private



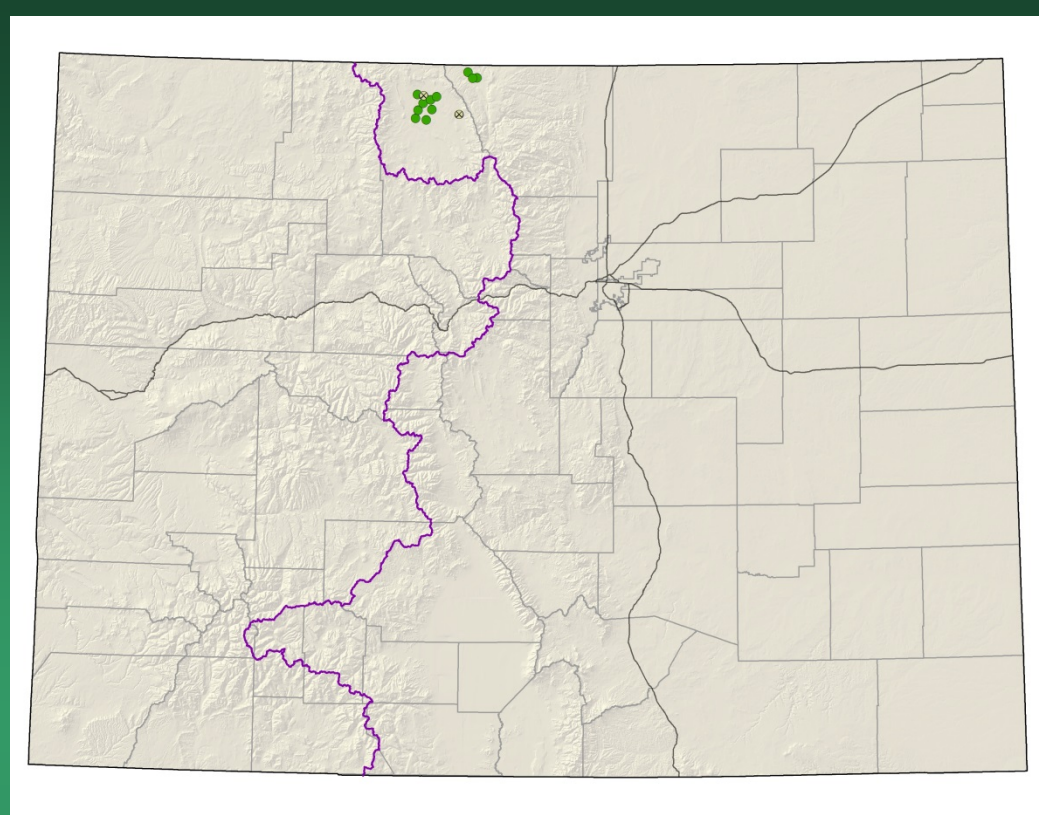
*Penstemon scariosus* var. *albifluvis*

# *Phacelia formosula*

## North Park phacelia

### Conservation Action Plan

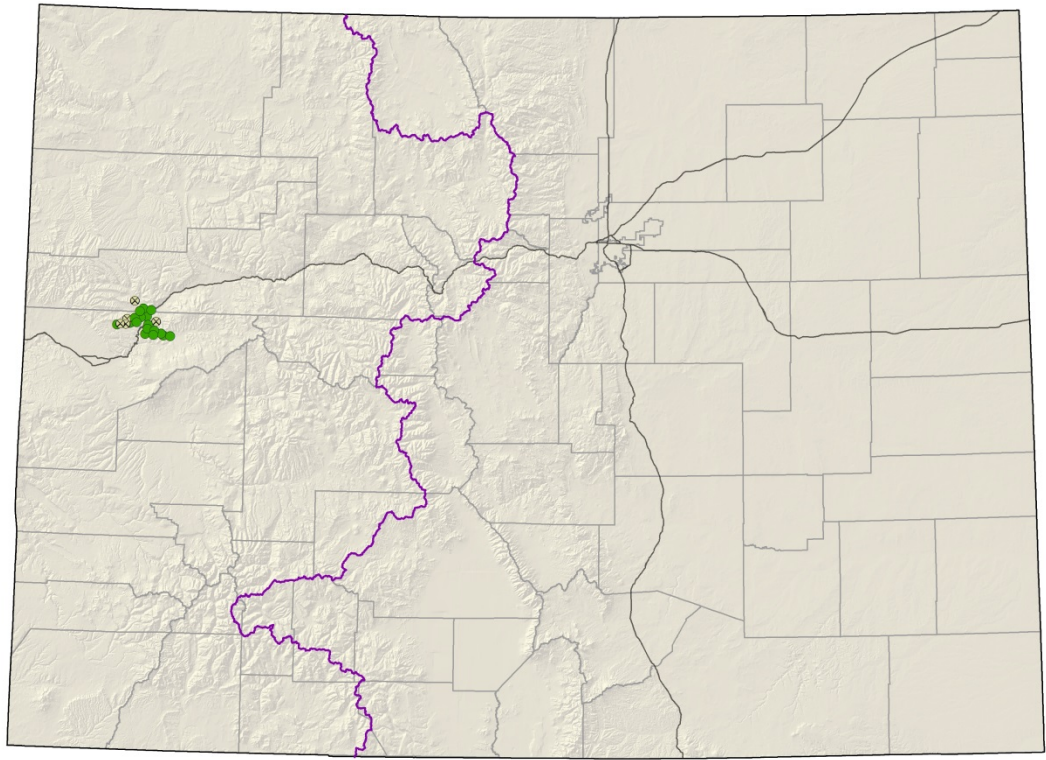
- Federal status: Endangered
- Heritage ranks: G1/S1
- Global distribution: Colorado endemic (Jackson and Larimer counties)
- Elevation range: 7,900-8,300 ft.
- Last observed: 2019
- Occurrences: 13 (2 are historical)
- Individuals: 18,000-20,000
- Primary threats: ORV use, coal extraction, overgrazing, oil and gas development
- Land ownership/management: BLM, federal, state, private





*Phacelia formosula*

*Phacelia submutica*  
DeBeque phacelia



- Federal status: Threatened
- Heritage ranks: G2/S2
- Global distribution: Colorado endemic (Garfield and Mesa counties)
- Elevation range: 5,000-6,540 ft.
- Last observed: 2019
- Occurrences: 24 (6 are historical)
- Individuals: 25,000-68,000
- Primary threats: oil and gas development, ORV use, grazing, oil shale mining
- Land ownership/management: BLM, private, USFS

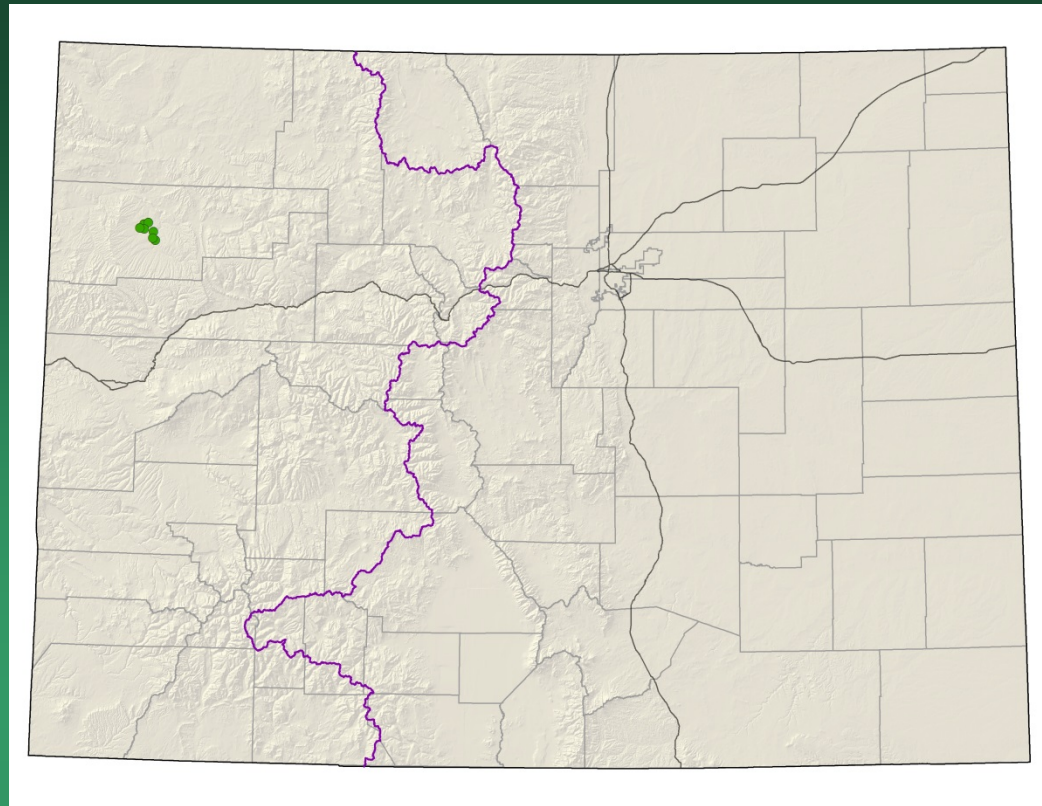


*Phacelia submutica*

# *Physaria congesta* Dudley Bluffs bladderpod

## Conservation Action Plan

- Federal status: Threatened
- Heritage ranks: G1/S1
- Global distribution: Colorado endemic (Rio Blanco County)
- Elevation range: 6,120-6,550 ft.
- Last observed: 2019
- Occurrences: 7
- Individuals: 650,000
- Primary threats: oil and gas development, oil shale and nahcolite mining, ORV use, overgrazing, trampling by wild horses
- Land ownership/management: BLM, state, private

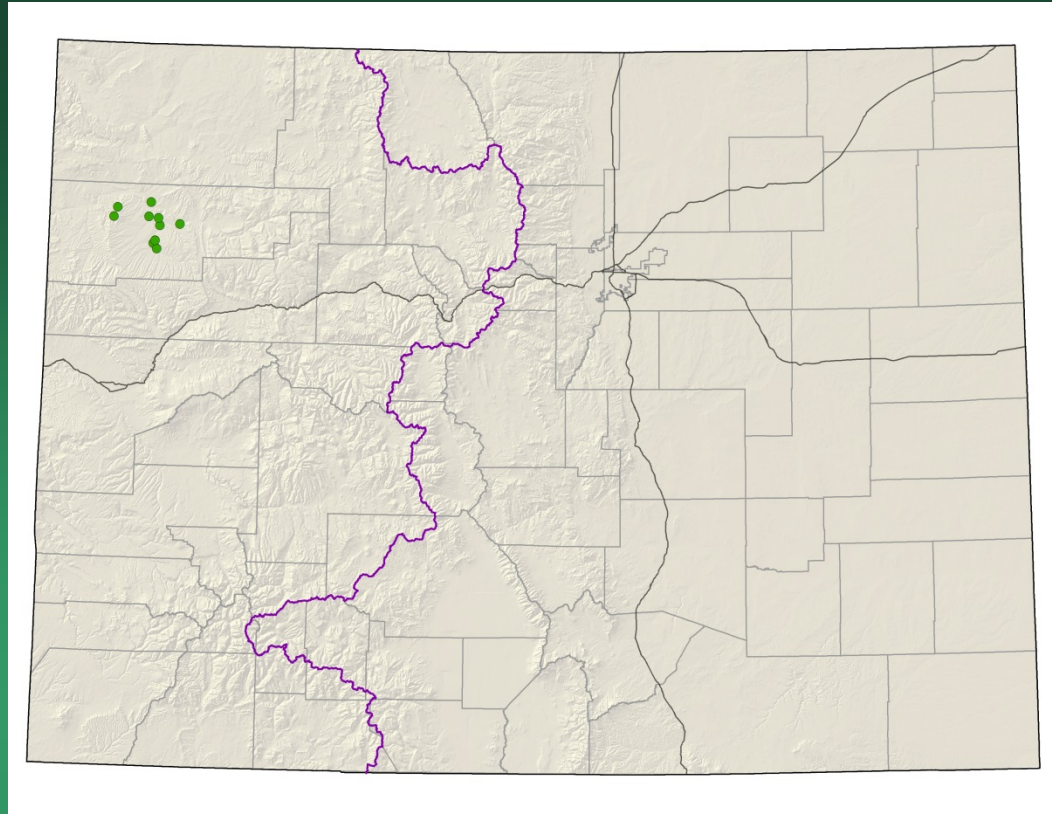


*Physaria congesta*



*Physaria obcordata*  
Piceance twinpod

Conservation Action Plan

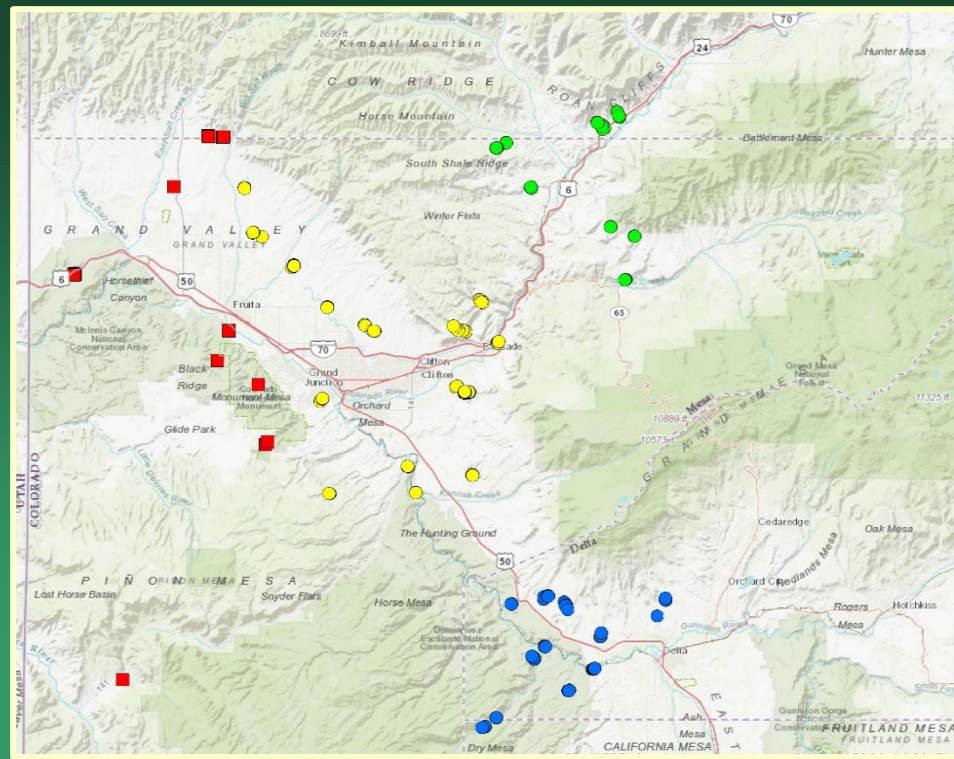


- Federal status: Threatened
- Heritage ranks: G1G2/S1S2
- Global distribution: Colorado endemic (Rio Blanco County)
- Elevation range: 5,930-7,560 ft.
- Last observed: 2019
- Occurrences: 11 (1 possibly extirpated)
- Individuals: 30,000
- Primary threats: oil and gas development, oil shale mining, ORV use, trampling by wild horses
- Land ownership/management: BLM, state, private



*Physaria obcordata*

# *Sclerocactus glaucus* Colorado hookless cactus

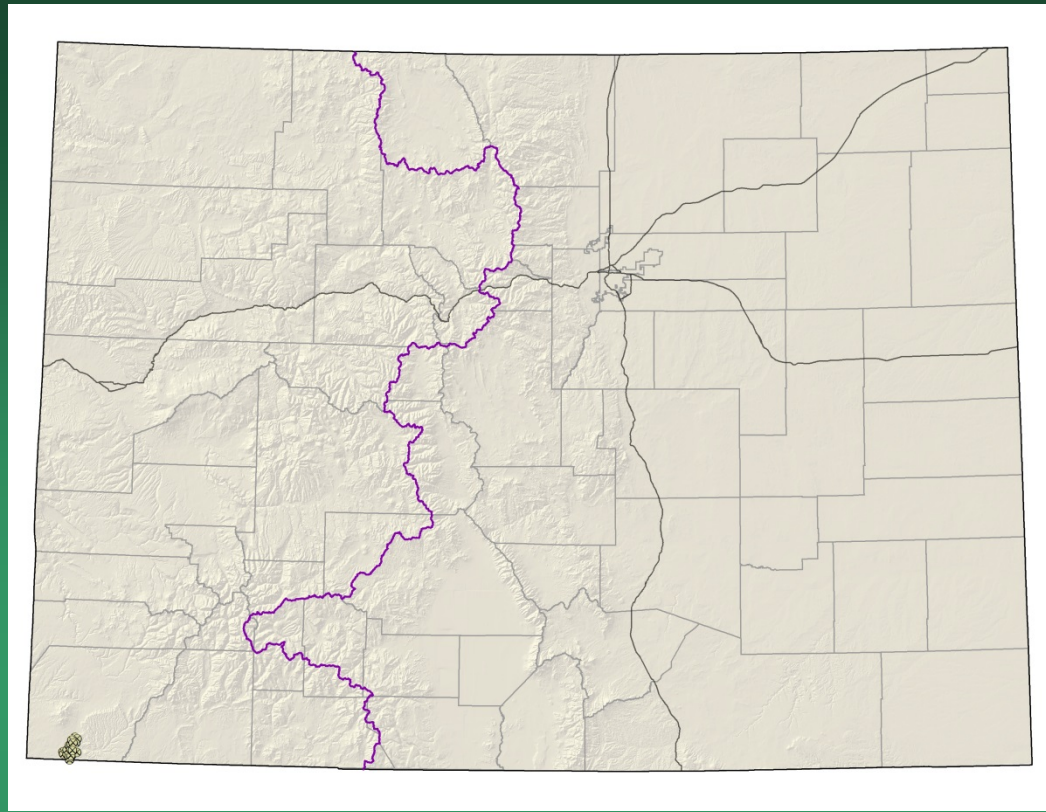


- Federal status: Threatened
- Heritage ranks: G2G3/S2S3
- Global distribution: Colorado endemic (Delta, Garfield, Mesa, and Montrose counties)
- Elevation range: 4,650-7,130 ft.
- Last observed in Colorado: 2019
- Colorado occurrences: >100 (18 are historical or unrankable)
- Colorado individuals: ~15,000-20,000
- Primary threats: oil and gas development, residential development, cactus collecting
- Land ownership/management: BLM, federal, state, private, USFS



*Sclerocactus glaucus*

*Sclerocactus mesae-verdae*  
Mesa Verde cactus

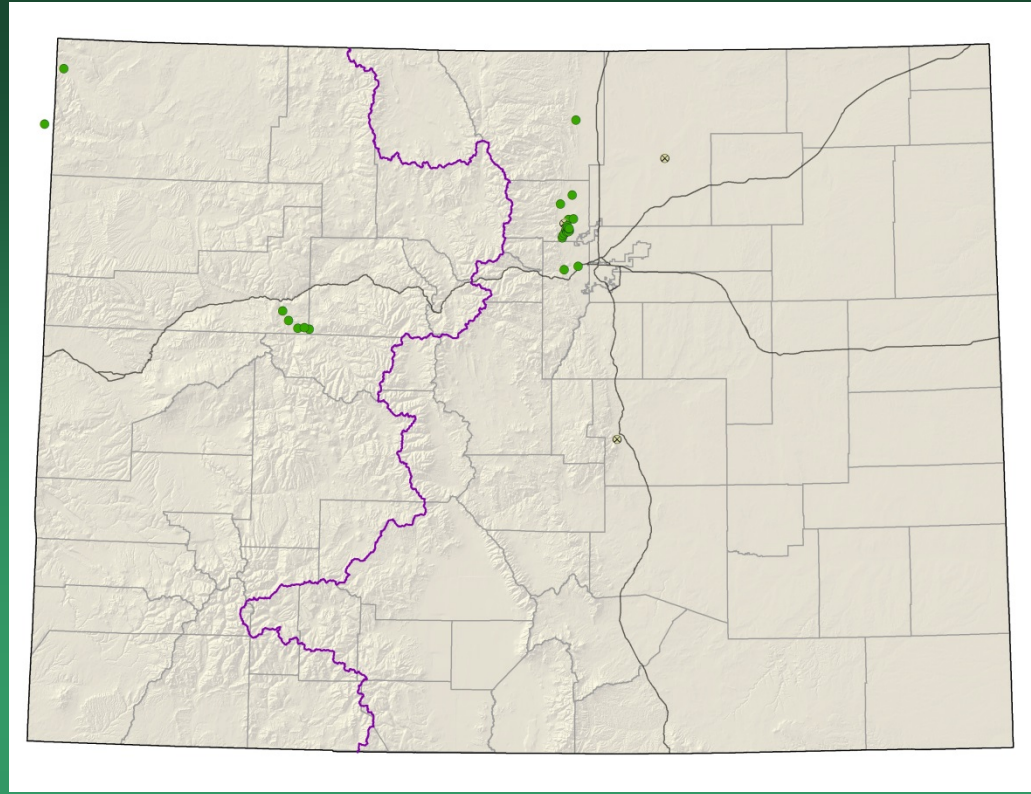


- Federal status: Threatened
- Heritage ranks: G2/S2
- Global distribution: New Mexico and Colorado ( Montezuma County)
- Elevation range: 5,050-5,770 ft.
- Last observed in Colorado: 2013
- Colorado occurrences: 22 – probably a single large occurrence
- Colorado individuals: 2,000-10,000
- Primary threats: weeds, feral horses, cactus collecting, ORV use
- Land ownership/management: tribe



*Sclerocactus mesae-verdae*

# *Spiranthes diluvialis* Ute ladies'-tresses



- Federal status: Threatened
- Heritage ranks: G2G3/S2
- Global distribution: Washington, Idaho, Montana, Wyoming, Nevada, Utah, Nebraska, and Colorado (Boulder, El Paso, Garfield, Jefferson, Larimer, Moffat, and Weld counties)
- Elevation range: 4,530-7,750 ft.
- Last observed in Colorado: 2019
- Colorado occurrences: 21 (3 are historical)
- Colorado individuals: 17,500
- Primary threats: weeds, residential development, hydrological alterations
- Land ownership/management: BLM, local government, NPS, USFS, state, private

*Spiranthes diluvialis*



**To contribute data or photos  
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