# The Colorado Rare Plant Technical Committee presents: 13<sup>th</sup> Annual

### Colorado Rare Plant Symposium

Sept. 23, 2016 Golden, Colorado

Sponsored by:

Colorado Native Plant Society
Colorado Natural Heritage Program
Denver Botanic Gardens
University of Colorado Herbarium









### Thanks to all who have contributed pictures to the presentations

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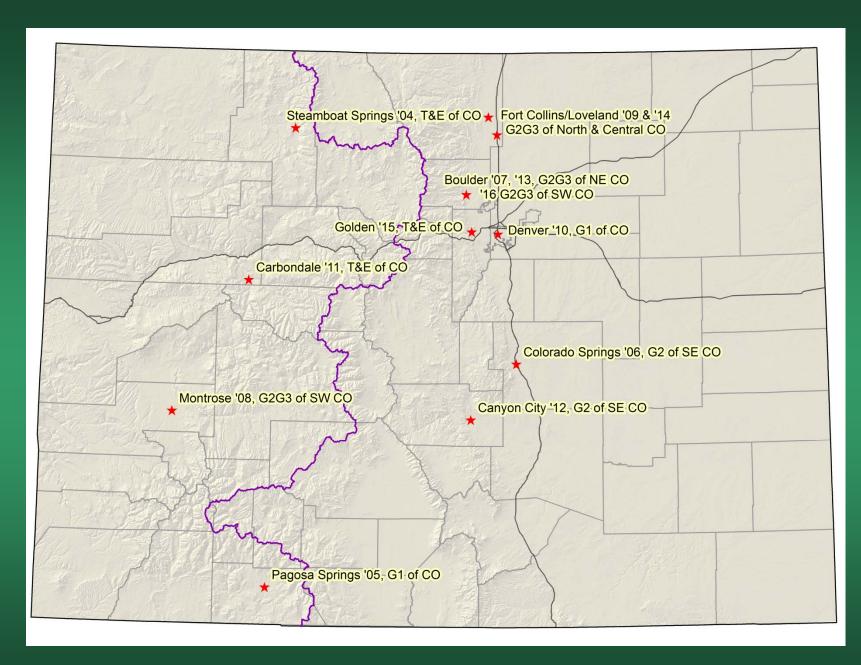
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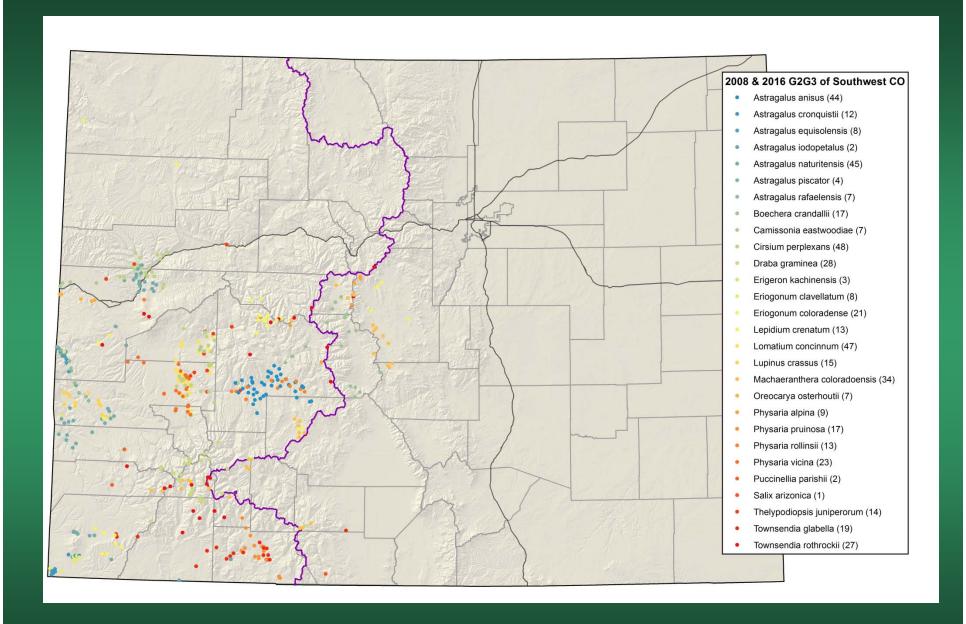
Colorado Natural Heritage Program: www.cnhp.colostate.edu cnhpblog.blogspot.com

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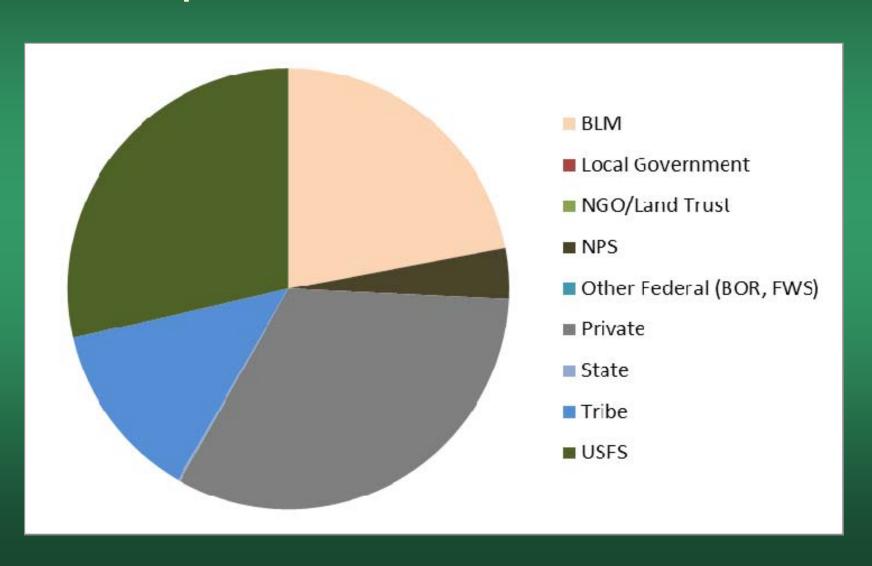


Colorado Rare Plant Symposium/CoNPS Annual Meeting Locations

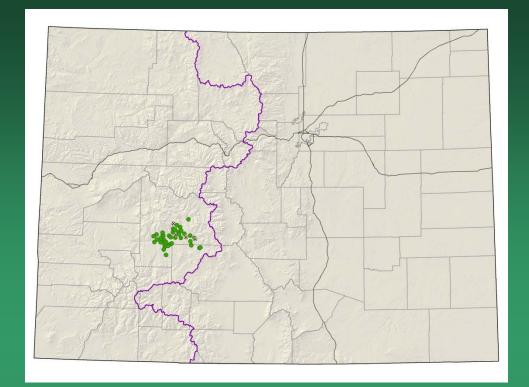
## Colorado Rare Plant Symposia 2008/2016 SW Colorado G2G3 species



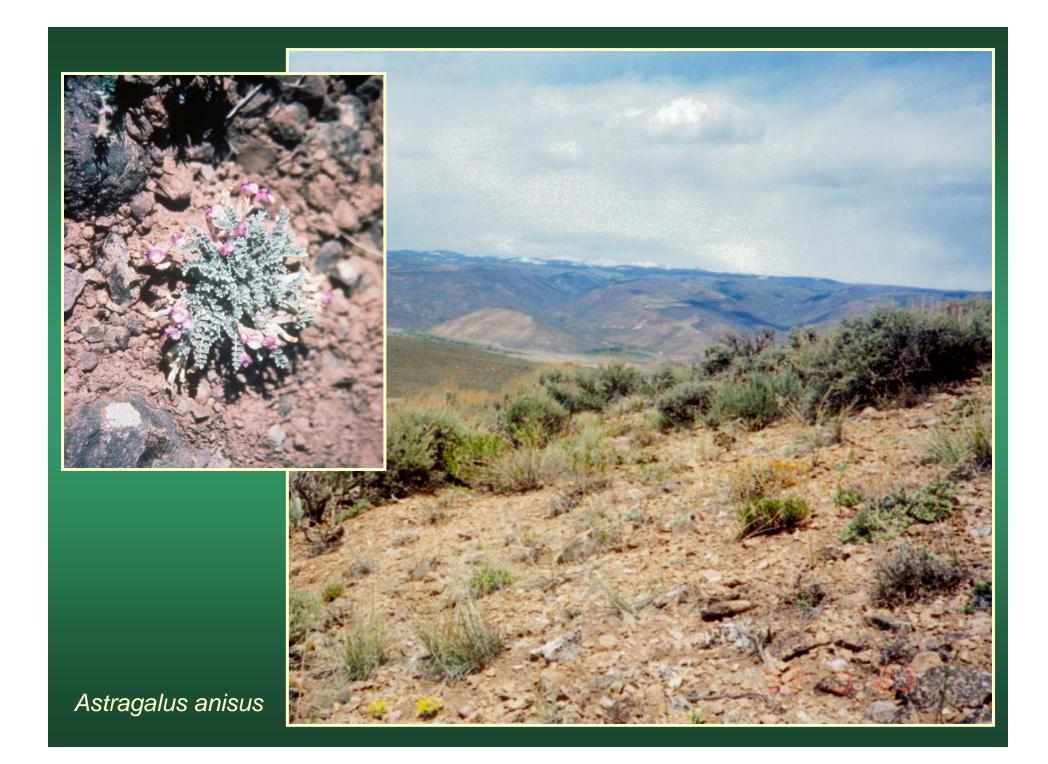
# Land Ownership of G2G3 Plant Species of SW Colorado



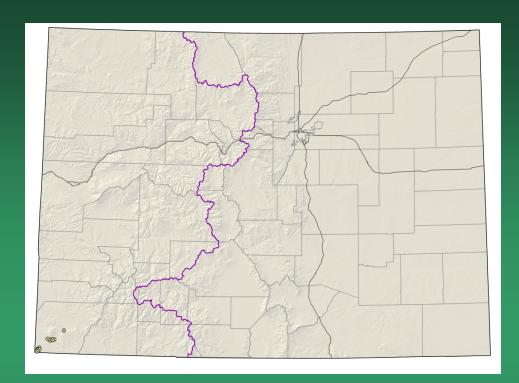
# Astragalus anisus Gunnison milkvetch



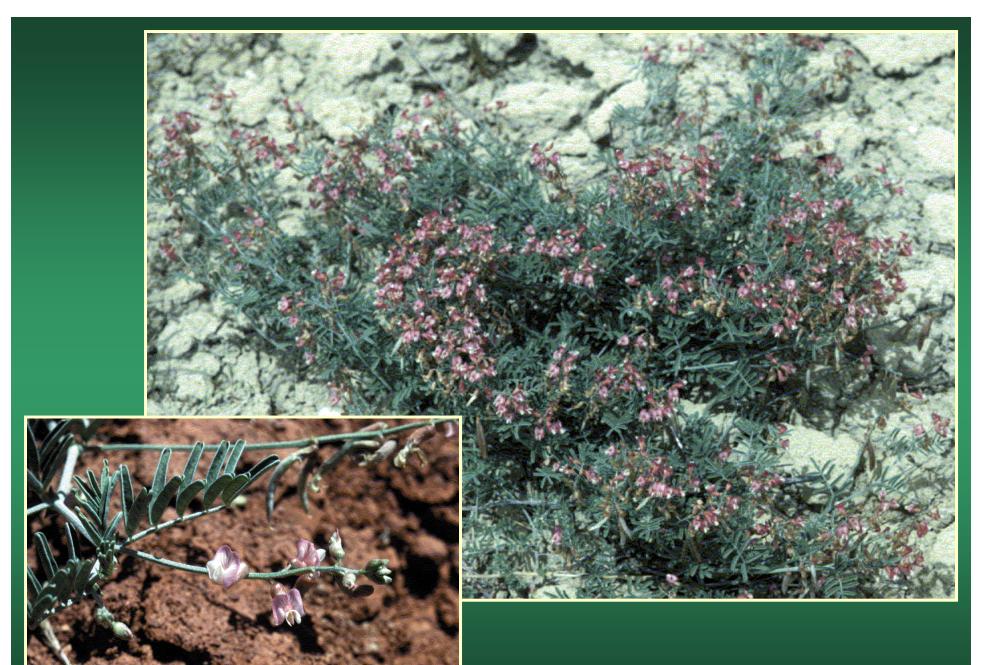
- <u>Federal status</u>: BLM sensitive
- Heritage ranks: G2G3/S2S3
- Global distribution: endemic to Colorado (Gunnison & Saguache counties)
- <u>Elevation range</u>: 7,520-9,740 ft.
- Last observed in Colorado: 2016
- Colorado occurrences: 41 (5 are historical)
- Colorado individuals: 5000-10,000?
- <u>Primary threats</u>: road building, off-road vehicle use, non-motorized recreation, non-native species invasion, grazing, residential development, fire suppression, resource extraction, and global climate change.
- Land ownership/management: BLM, NPS, federal, state, private, USFS



### Astragalus cronquistii Cronquist's milkvetch



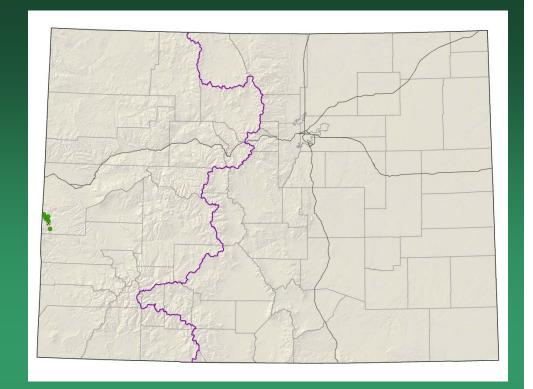
- Federal status: none
- Heritage ranks: G2/S2
- Global distribution: Utah and Colorado (Montezuma County)
- <u>Elevation range</u>: 4,700-6,320 ft.
- Last observed in Colorado: 1993
- Colorado occurrences: 13 (all are historical)
- Colorado individuals: ~1500
- Primary threats: roads, unknown
- <u>Land ownership/management</u>: Tribal



Astragalus cronquistii

### Astragalus equisolensis (= A. desperatus var. neeseae) horseshoe milkvetch

**Conservation Action Plan** 

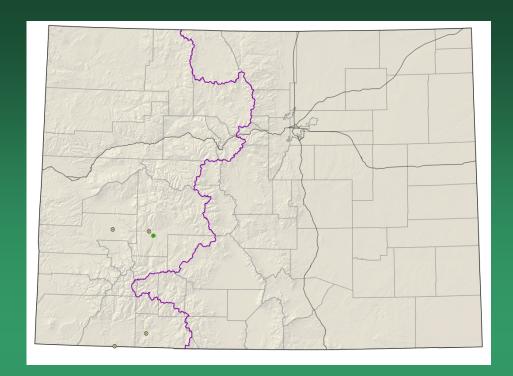


- Federal status: BLM sensitive
- Heritage ranks: G5T1/S1
- Global distribution: Utah and Colorado (Mesa County)
- <u>Elevation range</u>: 4,500-6,030 ft.
- Last observed in Colorado: 2016
- Colorado occurrences: 8 (2 are historical)
- Colorado individuals: 2670
- Primary threats: unknown
- Land ownership/management: BLM, private

### Astragalus equisolensis



# Astragalus iodopetalus violet milkvetch

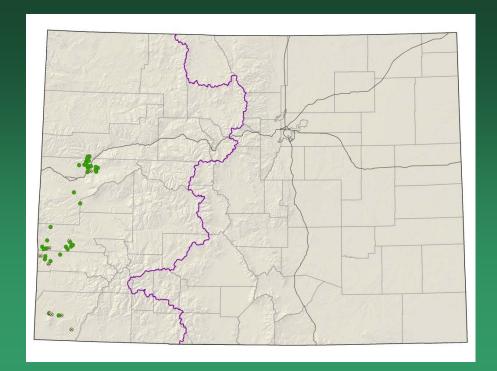


- Federal status: USFS sensitive
- Heritage ranks: G2/S1
- <u>Global distribution</u>: New Mexico (historical) and Colorado (Archuleta, Gunnison, La Plata and Montrose counties).
- <u>Elevation range</u>: 6,500-7,260 ft.
- <u>Last observed in Colorado</u>: 2015
- Colorado occurrences: 5 (4 are historical)
- Colorado individuals: unknown
- Primary threats: unknown
- Land ownership/management: Tribal, USFS

### Astragalus iodopetalus

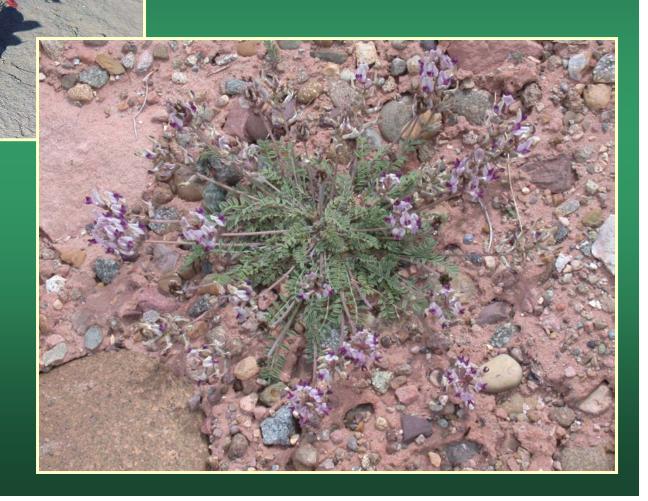


# Astragalus naturitensis Naturita milkvetch



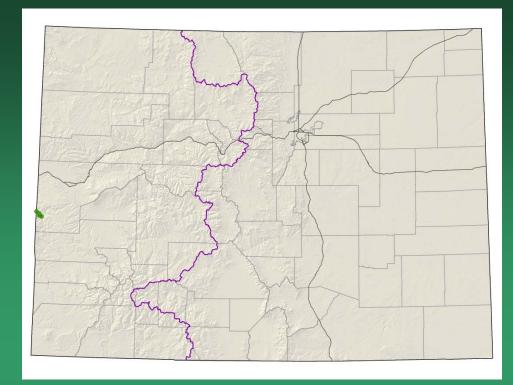
- Federal status: BLM sensitive
- Heritage ranks: G2G3/S2S3
- Global distribution: New Mexico, Utah, the Navajo Nation and Colorado (Garfield, Mesa, Montezuma, Montrose and San Miguel counties)
- <u>Elevation range</u>: 4,830-7,030 ft.
- Last observed in Colorado: 2016
- Colorado occurrences: 45 (11 are historical)
- Colorado individuals: 650 in 2011, + prev. ~ 6500 estimate
- Primary threats: Recreation, Oil and Gas development, Uranium claims
- Land ownership/management: BLM, private, tribe, USFS





# Astragalus piscator Fisher Towers milkvetch

**Conservation Action Plan** 

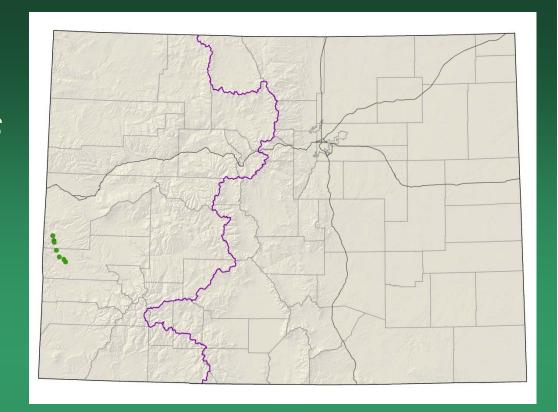


- Federal status: BLM sensitive
- Heritage ranks: G2G3/S1
- Global distribution: Utah and Colorado (Mesa County)
- <u>Elevation range</u>: 4,500-5,580 ft.
- Last observed in Colorado: 2016
- Colorado occurrences: 4
- Colorado individuals: 3000-5000
- Primary threats: recreation, roads
- Land ownership/management: BLM, private

### Astragalus piscator



# Astragalus rafaelensis San Rafael milkvetch



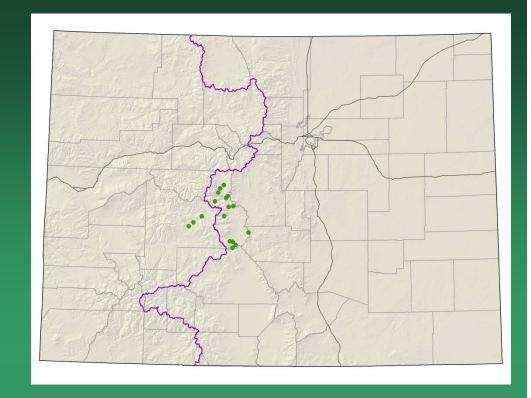
- <u>Federal status</u>: BLM sensitive
- Heritage ranks: G2G3/S1
- Global distribution: Utah and Colorado (Montrose and Mesa counties)
- <u>Elevation range</u>: 4,720-6,800 ft.
- Last observed in Colorado: 2014
- <u>Colorado occurrences</u>: 7
- Colorado individuals: >1000
- Primary threats: unknown
- Land ownership/management: BLM, private

### Distribution of Astragalus rafaelensis vs A. linifolius



# Astragalus rafaelensis

### Boechera crandallii = Arabis crandallii Crandall's rockcress

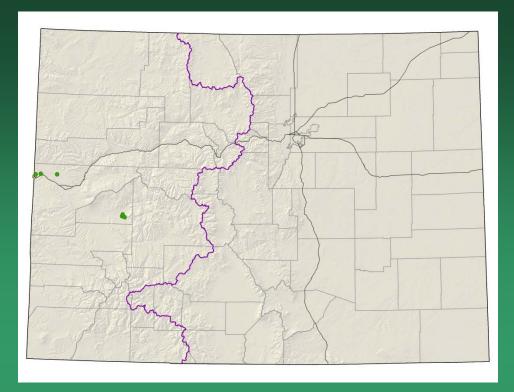


- Federal status: BLM sensitive
- Heritage ranks: G2/S2
- Global distribution: Wyoming and Colorado (Gunnison, Chaffee, and Lake counties)
- <u>Elevation range</u>: 8,175-10,600 ft.
- Last observed in Colorado: 2015
- Colorado occurrences: 17
- Colorado individuals:
- Primary threats: habitat loss/degradation, road construction
- Land ownership/management: BLM, state, private, USFS

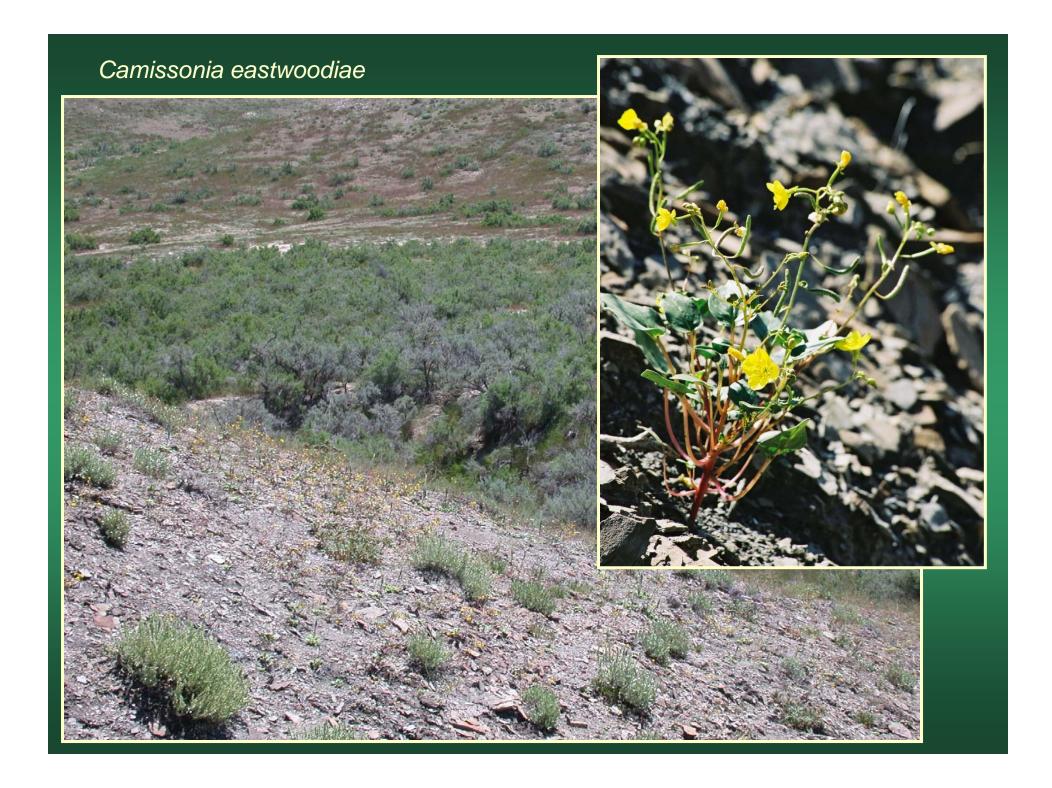
### Boechera crandallii



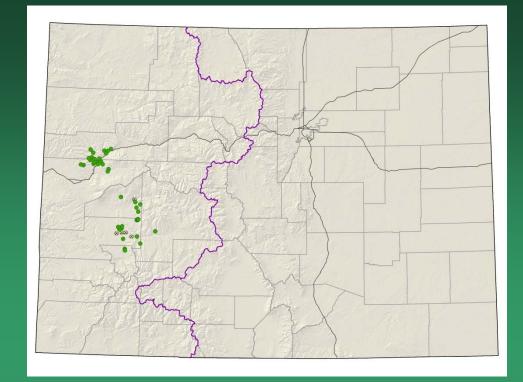
# Camissonia eastwoodiae Eastwood evening primrose



- <u>Federal status</u>: BLM sensitive
- Heritage ranks: G2/S1
- Global distribution: Utah and Colorado (Delta and Mesa counties)
- <u>Elevation range</u>: 4,560-6,050 ft.
- Last observed in Colorado: 2016
- Colorado occurrences: 7 (1 is historical)
- Colorado individuals: several thousand
- Primary threats: unknown
- Land ownership/management: BLM, private

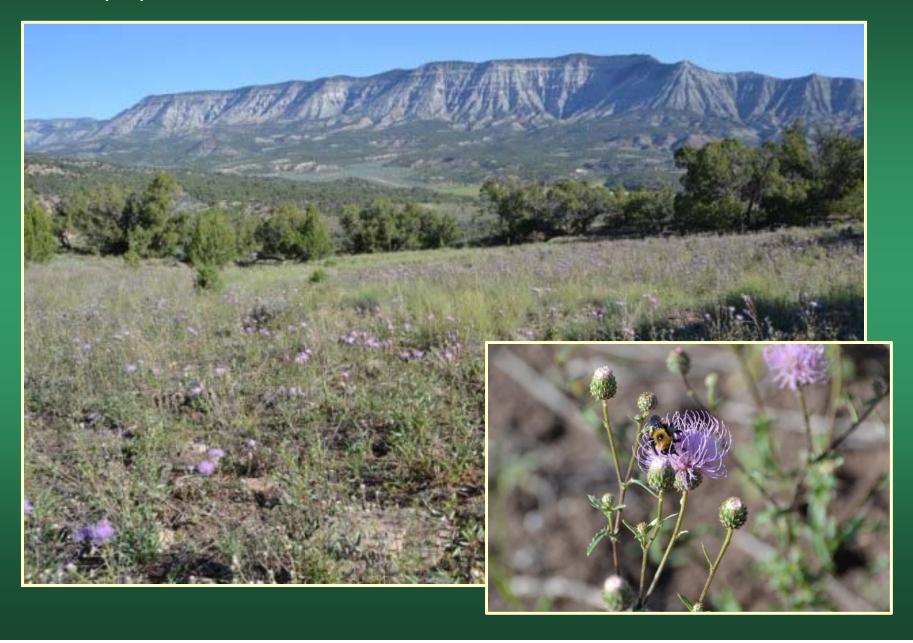


# Cirsium perplexans adobe thistle

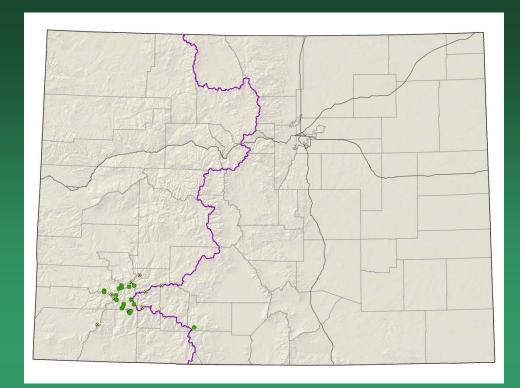


- <u>Federal status</u>: None
- Heritage ranks: G2G3/S2S3
- <u>Global distribution</u>: Colorado endemic ( Delta, Mesa, Montrose, Gunnison, Garfield, and Ouray counties)
- <u>Elevation range</u>: 4,900-8,370 ft.
- Last observed in Colorado: 2016
- Colorado occurrences: 43 (5 are historical)
- Colorado individuals: 10,000+
- <u>Primary threats</u>: Bio or other control for non-native thistles, grazing, energy development
- <u>Land ownership/management</u>: BLM, local government, NPS, state, private, USFS

### Cirsium perplexans



# Draba graminea San Juan whitlow-grass

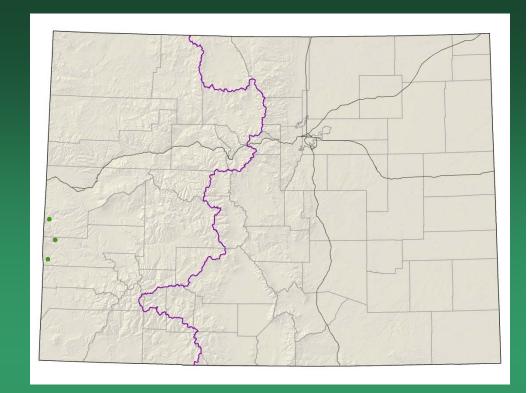


- Federal status: none
- Heritage ranks: G2/S2
- <u>Global distribution</u>: Colorado endemic ( Dolores, Hinsdale, La Plata, Montezuma, Ouray, San Juan, and San Miguel counties)
- <u>Elevation range</u>: 9,600-13,680 ft.
- Last observed in Colorado: 2013
- Colorado occurrences: 28 (10 are historical)
- Colorado individuals: >8000
- Primary threats: Non-motorized recreation
- Land ownership/management: BLM, private, USFS

### Draba graminea



# Erigeron kachinensis kachina daisy

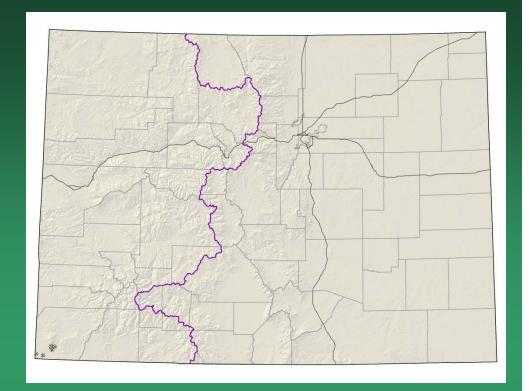


- <u>Federal status</u>: BLM sensitive
- Heritage ranks: G2/S1
- Global distribution: Utah and Colorado (Montrose county)
- <u>Elevation range</u>: 4,700-6,650 ft.
- Last observed in Colorado: 2010
- Colorado occurrences: 3
- Colorado individuals: est. 7,600
- <u>Primary threats</u>: mining, energy development, or water projects could affect water supplies to habitat
- Land ownership/management: BLM



Erigeron kachinensis

### Eriogonum clavellatum Comb Wash buckwheat

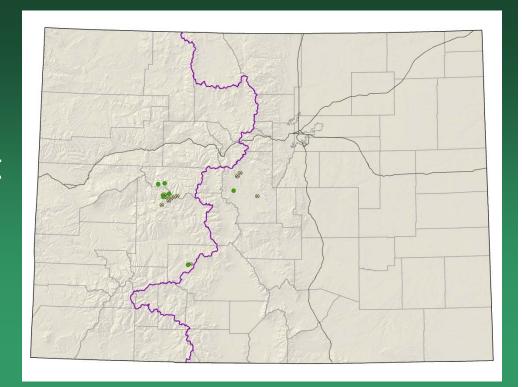


- Federal status: BLM sensitive
- Heritage ranks: G2/S1
- Global distribution: Utah and Colorado (Montezuma County)
- <u>Elevation range</u>: 4,800-6,030 ft.
- Last observed in Colorado: 1990
- Colorado occurrences: 8 (all are historical)
- Colorado individuals: unknown
- <u>Primary threats</u>: road construction, exploration for oil and gas, and a proposed system of irrigation canals on the Reservation
- Land ownership/management: Tribal

### Eriogonum clavellatum



### Eriogonum coloradense Colorado wild buckwheat



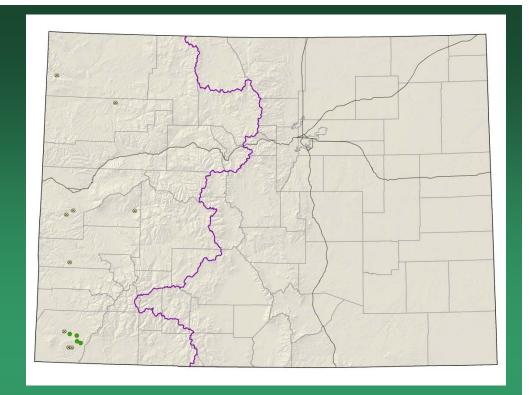
- Federal status: BLM sensitive
- Heritage ranks: G2/S2
- <u>Global distribution</u>: Colorado endemic (Gunnison, Park, Pitkin, and Saguache counties)
- <u>Elevation range</u>: 8,700-14,260 ft.
- Last observed in Colorado: 2016
- Colorado occurrences: 22 (13 are historical)
- Colorado individuals: ~5000
- Primary threats: recreation
- Land ownership/management: BLM, local government, state, private, USFS







# Lepidium crenatum alkaline pepperwort

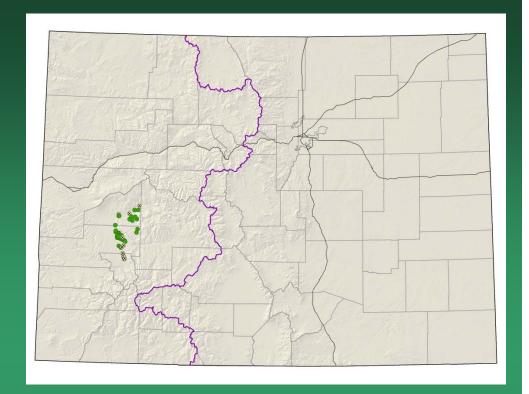


- Federal status: none
- Heritage ranks: G2/S2
- <u>Global distribution</u>: documented from Moffat, Rio Blanco, Mesa, Delta, Montrose and Montezuma counties in Colorado, may be present in Utah and New Mexico.
- <u>Elevation range</u>: 6,060-8,130 ft.
- <u>Last observed in Colorado</u>: 2012
- Colorado occurrences: 16 (12 are historical)
- Colorado individuals: thousands
- Primary threats: unknown
- Land ownership/management: BLM, NPS, private

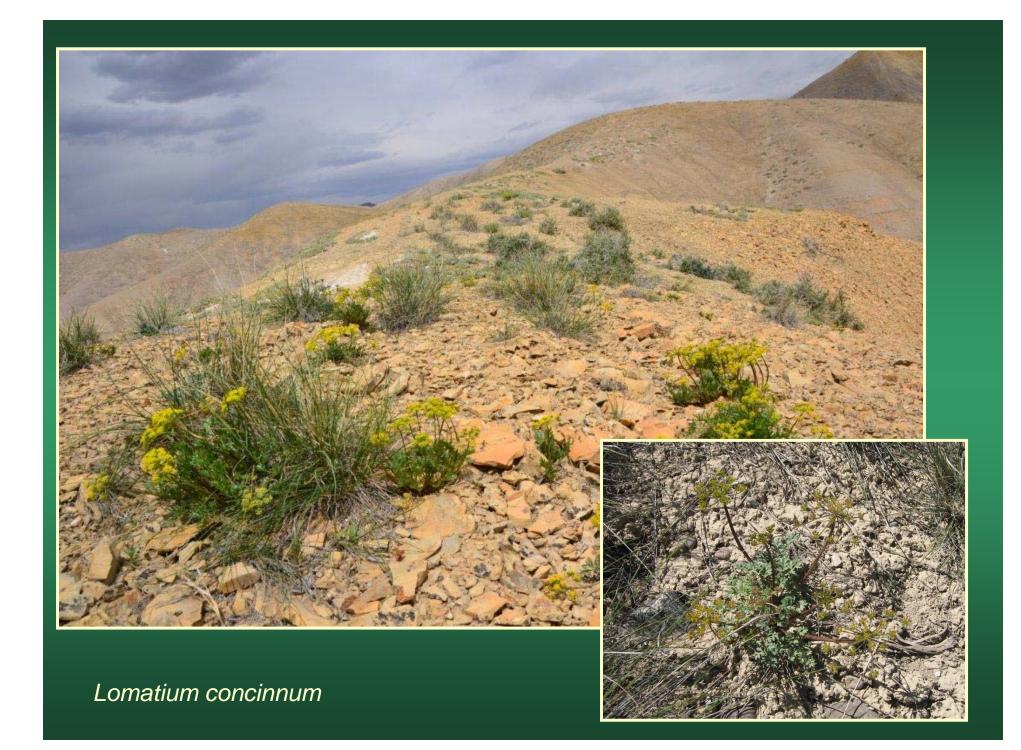
#### Lepidium crenatum



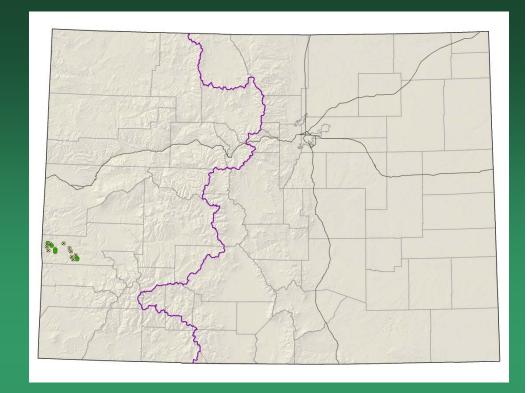
## Lomatium concinnum Colorado desert-parsley



- <u>Federal status</u>: BLM sensitive
- Heritage ranks: G2G3/S2S3
- Global distribution: Colorado endemic (Delta, Montrose, and Ouray counties)
- <u>Elevation range</u>: 5,160-8,800 ft.
- Last observed in Colorado: 2016
- Colorado occurrences: 41 (13 are historical)
- Colorado individuals: >70,000
- Primary threats: Motorized recreation
- Land ownership/management: BLM, state, private, USFS



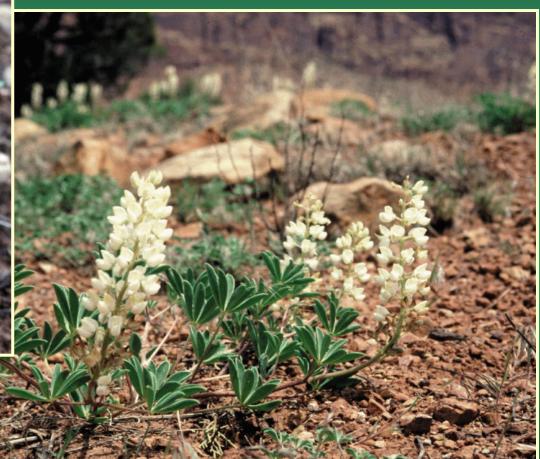
## Lupinus crassus Payson lupine



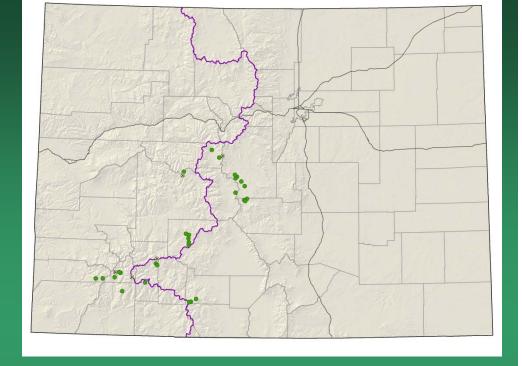
- <u>Federal status</u>: BLM sensitive
- Heritage ranks: G2/S2
- Global distribution: Colorado endemic (Montrose county)
- <u>Elevation range</u>: 5,070-6,260 ft.
- <u>Last observed in Colorado</u>: 2016
- Colorado occurrences: 18 (12 are historical)
- Colorado individuals: >100,000
- Primary threats: Incompatible grazing
- Land ownership/management: BLM, private

#### Lupinus crassus





# Machaeranthera coloradoensis Colorado tansy-aster



- Federal status: USFS sensitive
- Heritage ranks: G3/S3
- Global distribution: Wyoming and Colorado (Chaffee, Dolores, Fremont, Gunnison, Hinsdale, La Plata, Lake, Park, Pitkin, Rio Grande, Saguache, San Juan counties)
- <u>Elevation range</u>: 9,000-13,430 ft.
- Last observed in Colorado: 2016
- Colorado occurrences: 35 (4 are historical)
- Colorado individuals: unknown
- Primary threats: unknown
- Land ownership/management: BLM, state, private, USFS

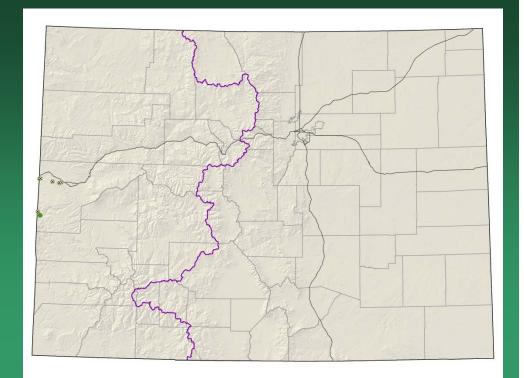
#### Machaeranthera coloradoensis



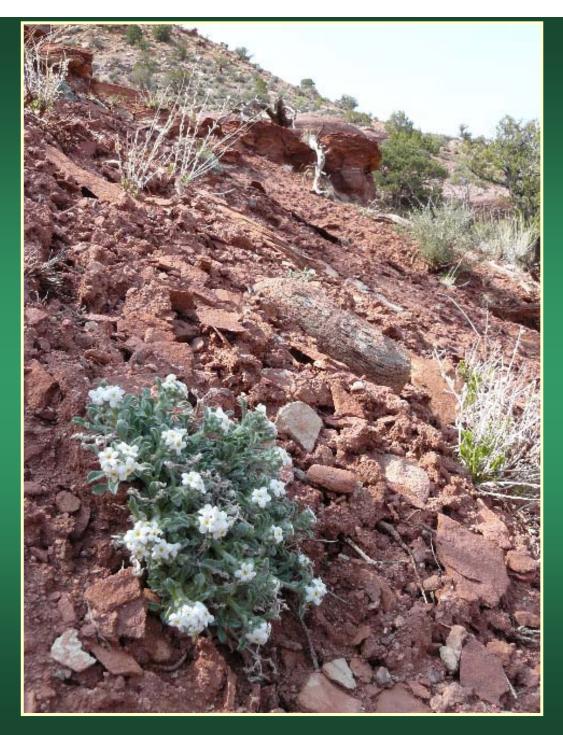
#### Oreocarya osterhoutii= Cryptantha osterhoutii Osterhout cat's-eye

#### **Conservation Action Plan**

- Federal status: BLM sensitive
- Heritage ranks: G2G3/S2
- Global distribution: Utah and Colorado (Mesa County)
- <u>Elevation range</u>: 4,440-6,500 ft.
- Last observed in Colorado: 2011
- Colorado occurrences: 7 (5 are historical)
- Colorado individuals: ~1500?
- Primary threats: unknown
- Land ownership/management: BLM, NPS, private

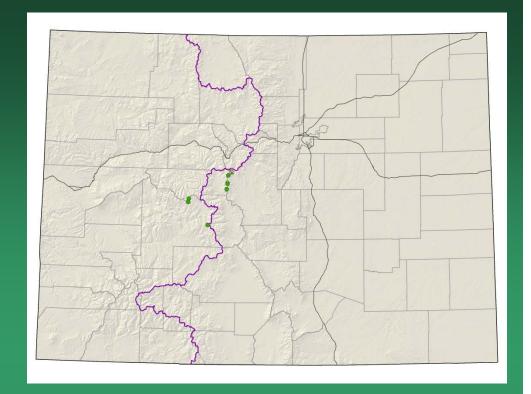








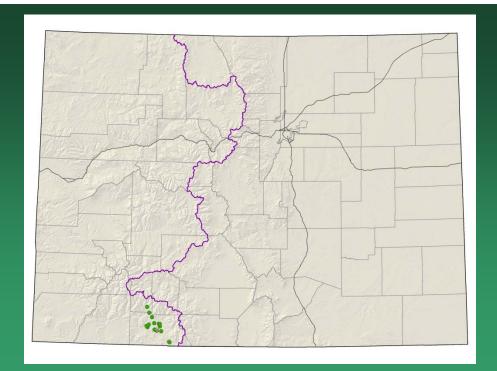
## Physaria alpina Avery Peak twinpod



- Federal status: none
- Heritage ranks: G2/S2
- Global distribution: Colorado endemic (Lake, Gunnison, Pitkin and Park counties)
- <u>Elevation range</u>: 11,450-14,100 ft.
- Last observed in Colorado: 2016
- Colorado occurrences: 10+ (2 are historical)
- Colorado individuals: >4000
- Primary threats: off-road vehicle use
- Land ownership/management: BLM, private, USFS

# Physaria alpina

#### Physaria pruinosa= Lesquerella pruinosa Pagosa bladderpod

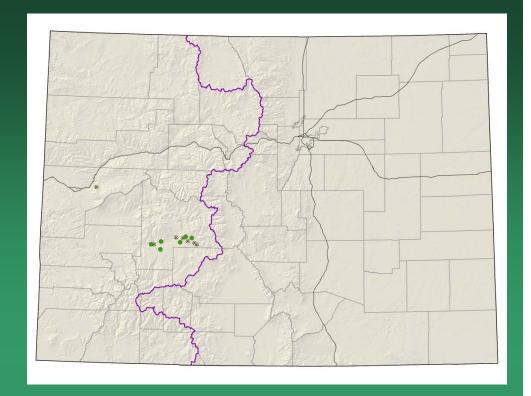


- Federal status: USFS and BLM sensitive
- Heritage ranks: G2/S2
- Global distribution: New Mexico and Colorado (Archuleta County, and the extreme southern portion of Hinsdale County)
- <u>Elevation range</u>: 6,820-8,500 ft.
- Last observed in Colorado: 2012
- Colorado occurrences: 19 (3 are historical)
- Colorado individuals: 5,000 to 20,000
- Primary threats: Residential and commercial development
- Land ownership/management: private, tribe, USFS

#### Physaria pruinosa



#### Physaria rollinsii Rollins' twinpod

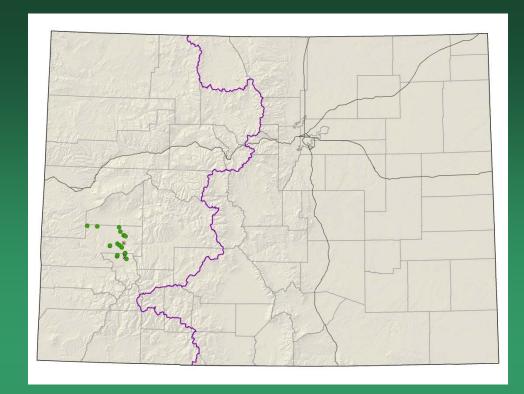


- Federal status: none
- Heritage ranks: G1G2/S1S2
- Global distribution: Colorado endemic (Mesa and Gunnison counties)
- <u>Elevation range</u>: 6,620-9,100 ft.
- Last observed in Colorado: 2014
- Colorado occurrences: 14 (7 are historical)
- Colorado individuals: unknown
- Primary threats: unknown
- Land ownership/management: BLM, NPS, federal, state, private

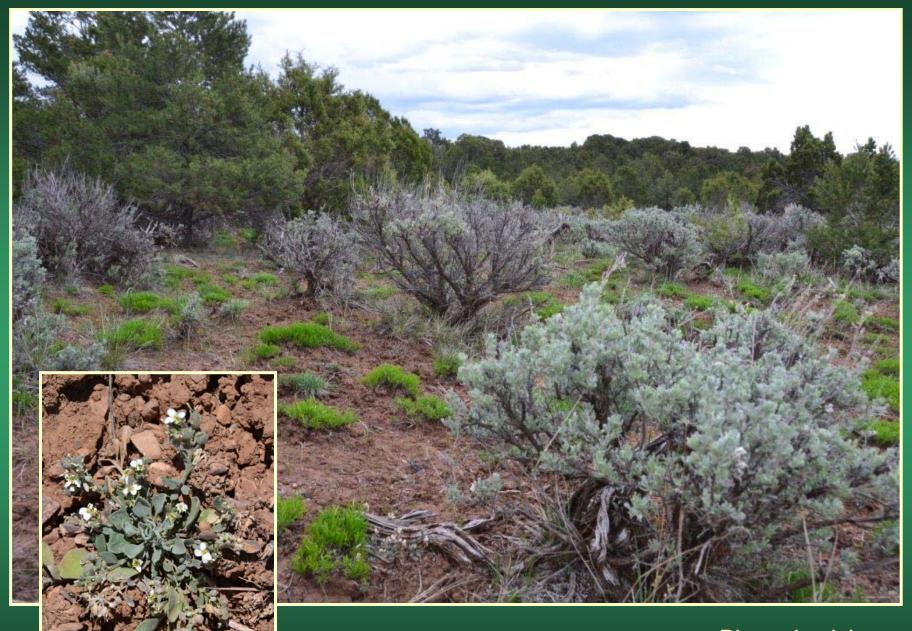
#### Physaria rollinsii



# Physaria vicina= Lesquerella vicina Montrose bladderpod



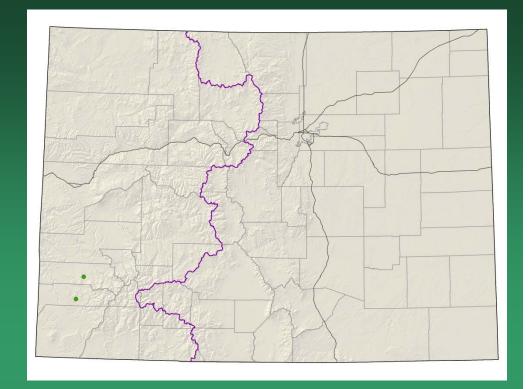
- <u>Federal status</u>: BLM sensitive
- Heritage ranks: G2/S2
- Global distribution: Colorado endemic (Garfield, Montrose and Ouray counties)
- <u>Elevation range</u>: 5,700-7,540 ft.
- Last observed in Colorado: 2016
- Colorado occurrences: 23 (2 are historical)
- Colorado individuals: >9,000
- Primary threats: Roads and recreational uses
- Land ownership/management: BLM, NPS, state, private



Physaria vicina

#### Puccinellia parishii Parish's alkali grass

**Conservation Action Plan** 

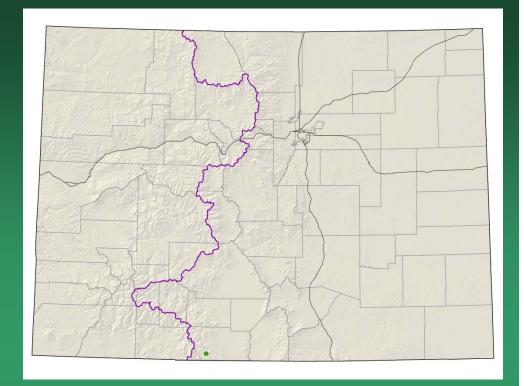


- Federal status: none
- Heritage ranks: G2G3/S1
- Global distribution: New Mexico, Arizona, California, and Colorado (San Miguel County)
- <u>Elevation range</u>: 7,620-7,950 ft.
- Last observed in Colorado: 2016
- Colorado occurrences: 2
- Colorado individuals: 20,000-35,000
- Primary threats: altered hydrology
- Land ownership/management: BLM, state, private

#### Puccinellia parishii



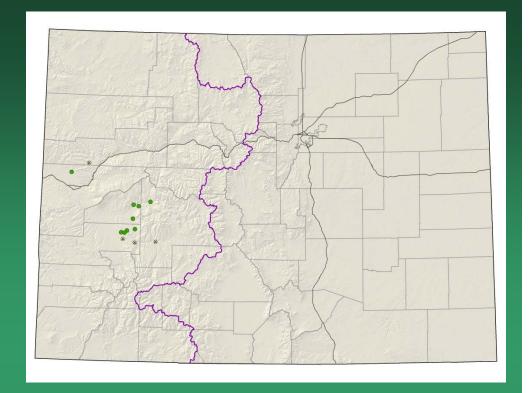
#### Salix arizonica Arizona willow



- <u>Federal status</u>: USFS sensitive
- Heritage ranks: G2G3/S1
- Global distribution: Arizona, New Mexico, Utah, and Colorado (Conejos Co.)
- <u>Elevation range</u>: 10,300-10,320 ft.
- Last observed in Colorado: 2016
- Colorado occurrences: 1
- Colorado individuals: unknown 32 dense clumps
- Primary threats: incompatible grazing, hydrologic alteration
- Land ownership/management: USFS



# Thelypodiopsis juniperorum juniper tumble mustard



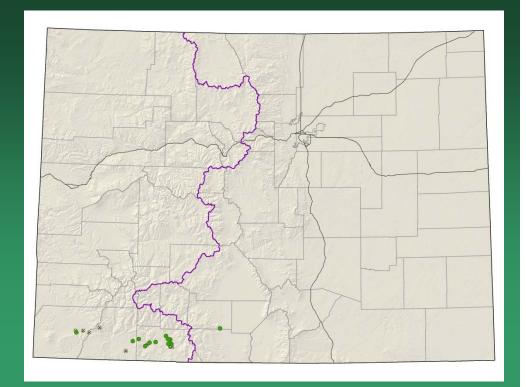
- <u>Federal status</u>: none
- Heritage ranks: G2/S2
- Global distribution: Colorado endemic (Montrose, Gunnison and Delta counties)
- <u>Elevation range</u>: 5,790-9,530 ft.
- Last observed in Colorado: 2016
- Colorado occurrences: 14 (5 are historical)
- Colorado individuals: 100's
- Primary threats: grazing, off-road vehicle use, non-native species invasion
- Land ownership/management: BLM, NPS, private, USFS

#### Thelypodiopsis juniperorum



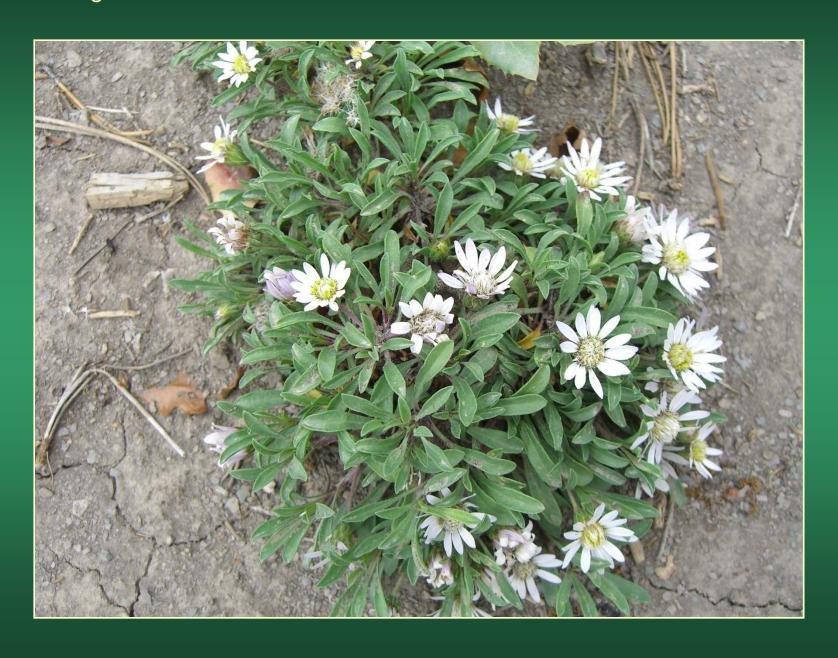


## Townsendia glabella Gray's townsend-daisy

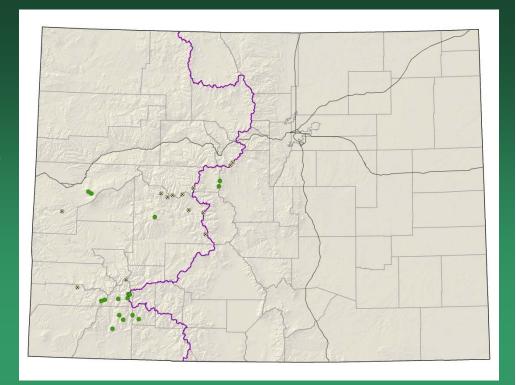


- Federal status: none
- Heritage ranks: G2/S2
- <u>Global distribution</u>: Colorado endemic (Archuleta, La Plata and Montezuma counties)
- <u>Elevation range</u>: 6,350-9,675 ft.
- <u>Last observed in Colorado</u>: 2016
- Colorado occurrences: 23 (9 are historical)
- Colorado individuals: >1,250
- <u>Primary threats</u>: Residential development
- Land ownership/management: BLM, NPS, state, private, tribe, USFS

#### Townsendia glabella



## Townsendia rothrockii Rothrock townsend-daisy



- <u>Federal status</u>: none
- Heritage ranks: G2G3/S2S3
- Global distribution: Colorado endemic (Dolores, Gunnison, Hinsdale, La Plata, Lake, Mesa, Ouray, Park, Pitkin, San Juan, and Summit counties)
- <u>Elevation range</u>: 7,920-13,220 ft.
- Last observed in Colorado: 2016
- Colorado occurrences: 30 (11 are historical)
- Colorado individuals: >4300
- Primary threats: motorized recreation
- <u>Land ownership/management</u>: BLM, local government, NGO/land trust, private, USFS



#### Townsendia rothrockii

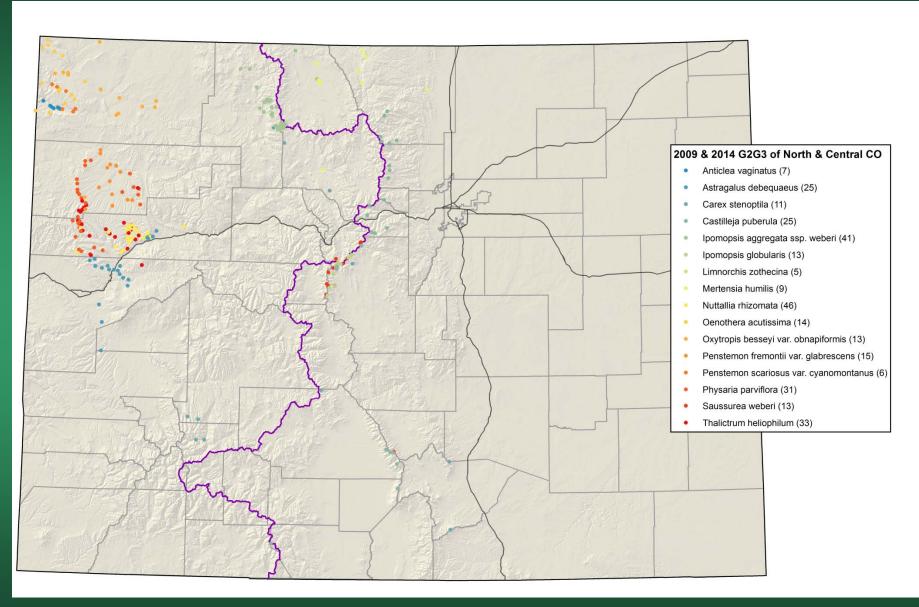


# To contribute data or photos contact:

# Colorado Natural Heritage Program www.cnhp.colostate.edu

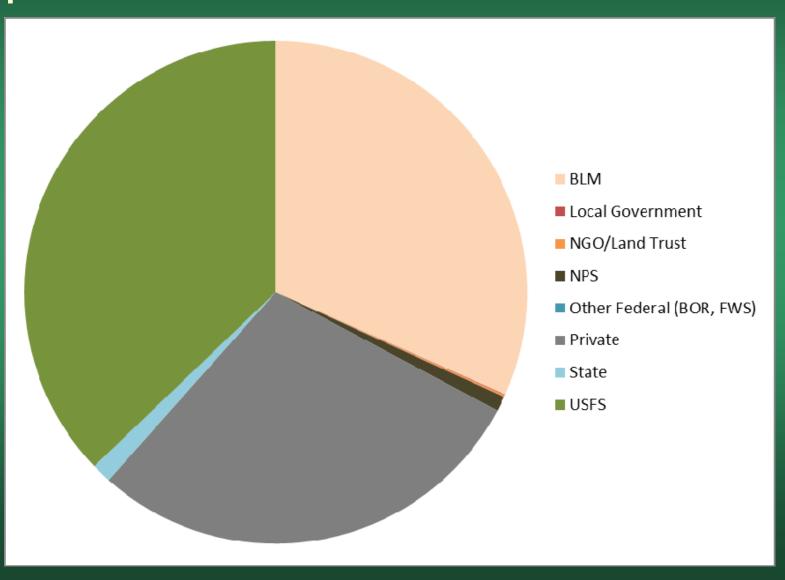
Jill.handwerk@colostate.edu Susan.panjabi@colostate.edu Pamela.smith@colostate.edu

### Colorado Rare Plant Symposia 2009/2014 NW & Central Colorado G2G3 species

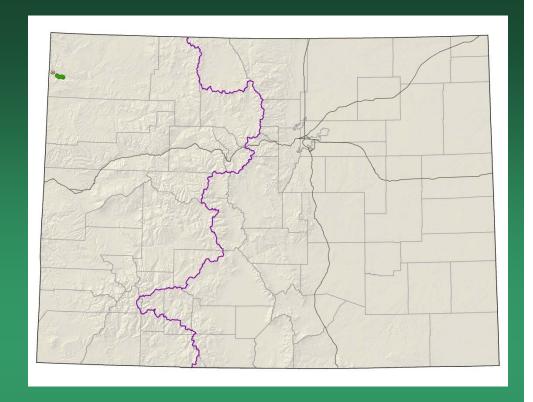


Location of NW & Central Colorado G2G3 Plant Species

# Land Ownership of G2G3 Plant Species of NW & Central Colorado



# Anticlea vaginatus = Zigadenus vaginatus sheathed deathcamas



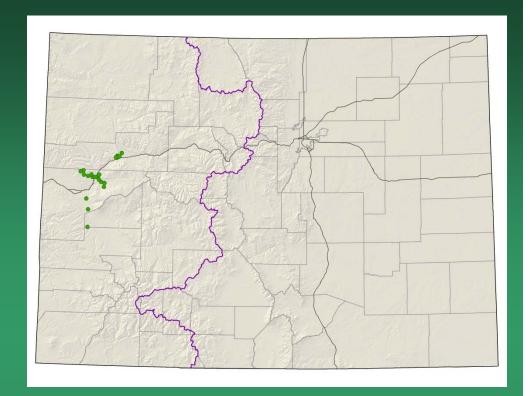
- Federal status: none
- Heritage ranks: G2/S2
- Global distribution: Utah and Colorado (Moffat county)
- <u>Elevation range</u>: 5,220-5,885 ft.
- <u>Last observed in Colorado</u>: 2012
- Colorado occurrences: 7 (1 is historical)
- Colorado individuals: 1100+
- Primary threats: hydrologic alteration
- <u>Land ownership/management</u>: NPS



#### Anticlea vaginatus

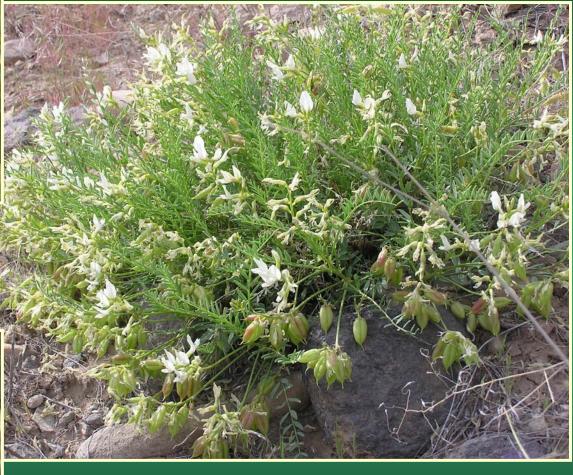


## Astragalus debequaeus Debeque milkvetch



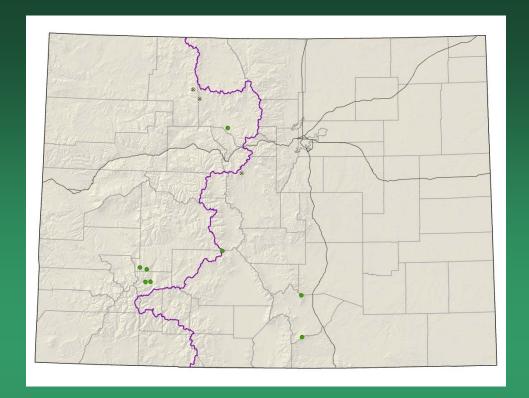
- <u>Federal status</u>: BLM sensitive
- Heritage ranks: G2/S2
- Global distribution: Colorado endemic (Delta, Garfield and Mesa counties)
- <u>Elevation range</u>: 4,950-6,680 ft.
- Last observed in Colorado: 2016
- Colorado occurrences: 25
- Colorado individuals: >62,000
- Primary threats: Disturbance by oil and gas development
- Land ownership/management: BLM, private





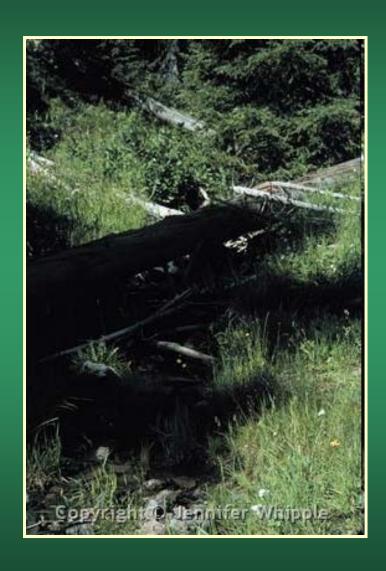
Astragalus debequaeus

## Carex stenoptila small-winged sedge



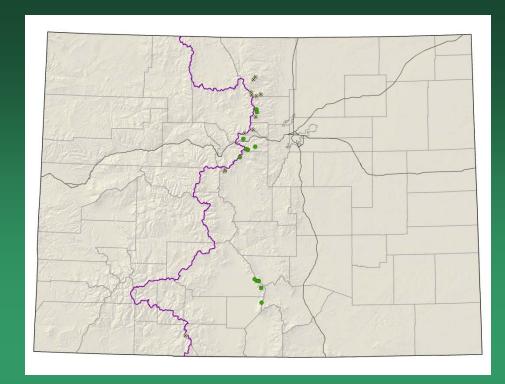
- Federal status: none
- Heritage ranks: G3/S2
- Global distribution: Montana, Wyoming, and Colorado (Park, Routt, Grand, Gunnison, Hinsdale, Saguache, and Huerfano counties)
- <u>Elevation range</u>: 8,555-13,760 ft.
- Last observed in Colorado: 1999
- Colorado occurrences: 11 (3 are historical)
- Colorado individuals: unknown
- Primary threats: none known
- Land ownership/management: BLM, private, USFS

#### Carex stenoptila

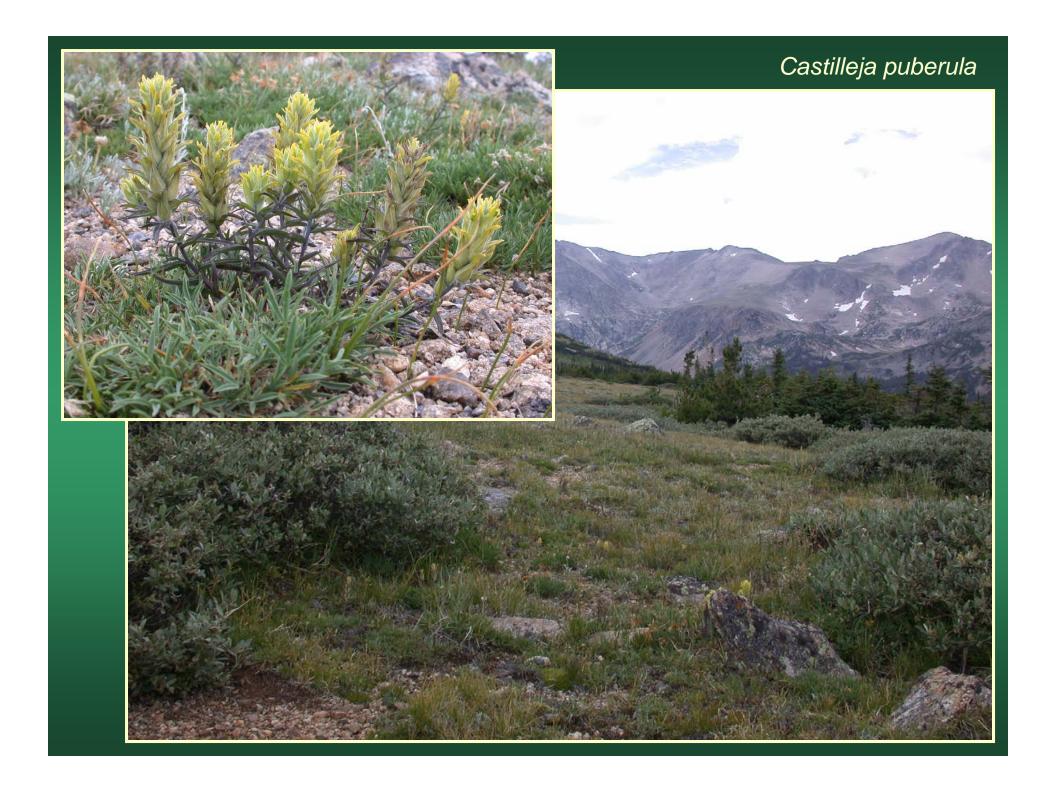




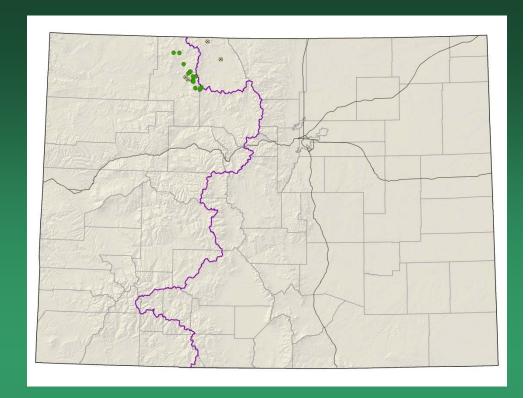
# Castilleja puberula downy indian paintbrush



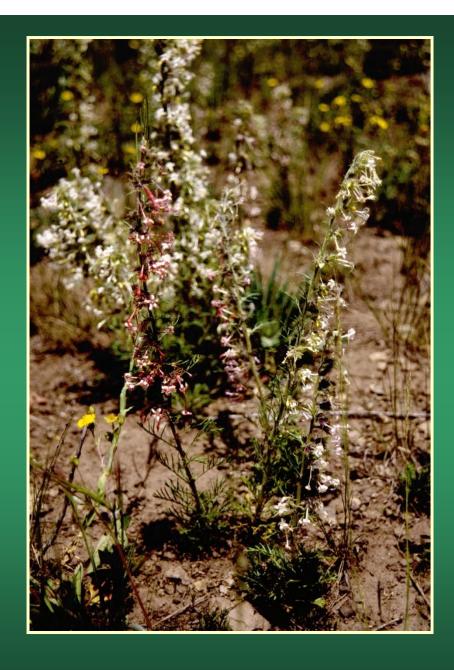
- Federal status: none
- Heritage ranks: G2G3/S2S3
- <u>Global distribution</u>: Colorado endemic (Alamosa, Boulder, Clear Creek, Grand, Larimer, Park, and Saguache counties)
- <u>Elevation range</u>: 10,725-13,020 ft.
- Last observed in Colorado: 2015
- Colorado occurrences: 25 (12 are historical)
- Colorado individuals: >2500
- Primary threats: May be threatened by off-road-vehicle use
- Land ownership/management: NPS, private, USFS



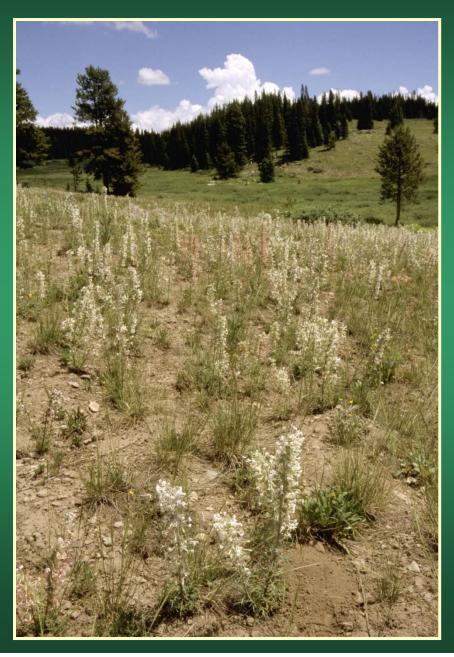
Ipomopsis aggregata ssp. weberi Weber's scarlet gilia



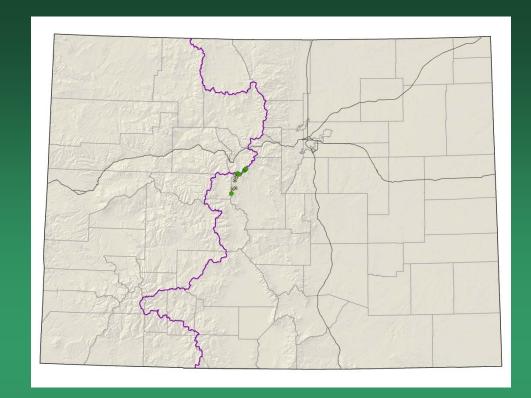
- Federal status: USFS sensitive
- Heritage ranks: G5T2/S2
- <u>Global distribution</u>: Regional endemic of northern Idaho, south-central Wyoming, and north-central Colorado (Grand, Routt and Jackson counties)
- <u>Elevation range</u>: 6,630-10,570 ft.
- Last observed in Colorado: 2009
- Colorado occurrences: 17 (5 are historical)
- Colorado individuals: >5300
- Primary threats: recreational use of habitat
- Land ownership/management: BLM, local government, private, state, USFS



Ipomopsis aggregata ssp. weberi



# Ipomopsis globularis globe gilia

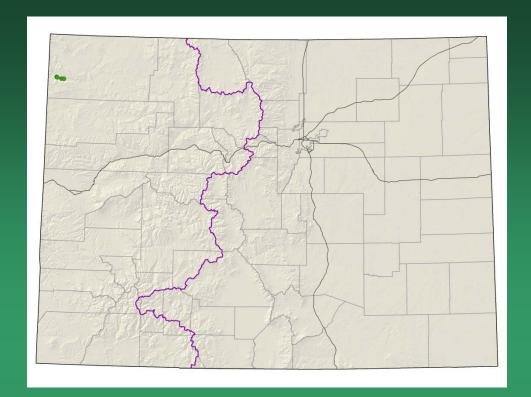


- <u>Federal status</u>: none
- Heritage ranks: G2/S2
- Global distribution: Colorado endemic (Lake, Park, and Summit counties)
- <u>Elevation range</u>: 10,650-13,500 ft.
- <u>Last observed in Colorado</u>: 2016
- Colorado occurrences: 9 (5 are historical)
- Colorado individuals: estimated 6,000 11,000
- Primary threats: motorized recreation, mining development
- Land ownership/management: NGO/land trust, private, USFS

### Ipomopsis globularis



## Limnorchis zothecina (=Platanthera zothecina) alcove bog orchid



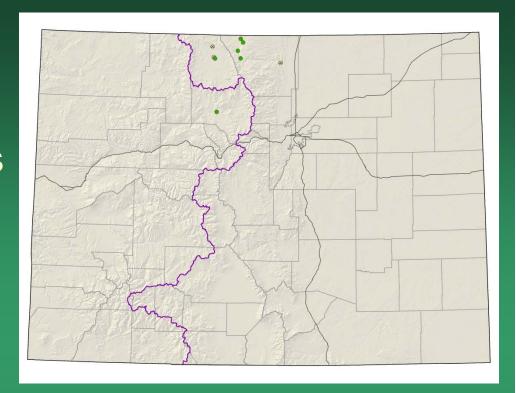
- <u>Federal status</u>: none
- Heritage ranks: G2G3/S1
- Global distribution: Utah, Arizona, and Colorado (Moffat County)
- <u>Elevation range</u>: 5,220-5,900 ft.
- <u>Last observed in Colorado</u>: 2012
- Colorado occurrences: 5
- Colorado individuals: ~250
- Primary threats: none known
- Land ownership/management: NPS

#### Limnorchis zothecina





# *Mertensia humilis*Rocky Mountain bluebells

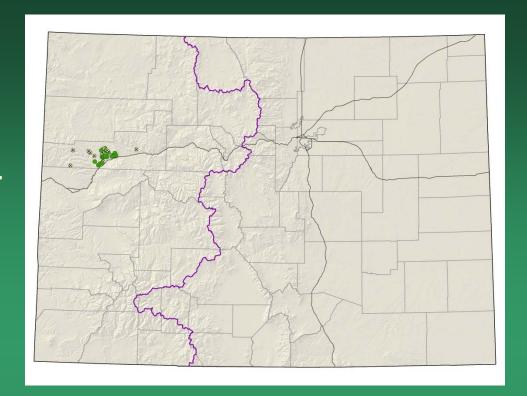


- <u>Federal status</u>: none
- Heritage ranks: G2/S1
- Global distribution: Wyoming and Colorado (Jackson and Larimer counties)
- <u>Elevation range</u>: 5,270-9,560 ft.
- <u>Last observed in Colorado</u>: 2011
- Colorado occurrences: 9 (3 are historical)
- Colorado individuals: unknown
- Primary threats: none known
- Land ownership/management: BLM, federal, state, private, USFS



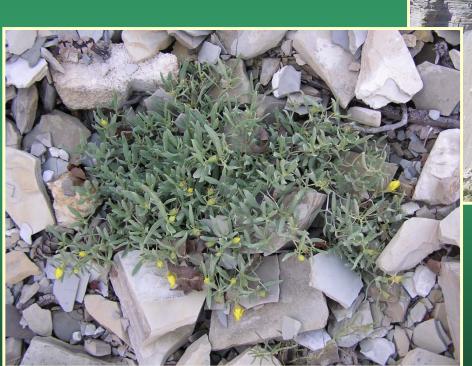
Mertensia humilis

## Nuttallia (Mentzelia) rhizomata Roan Cliffs blazing star



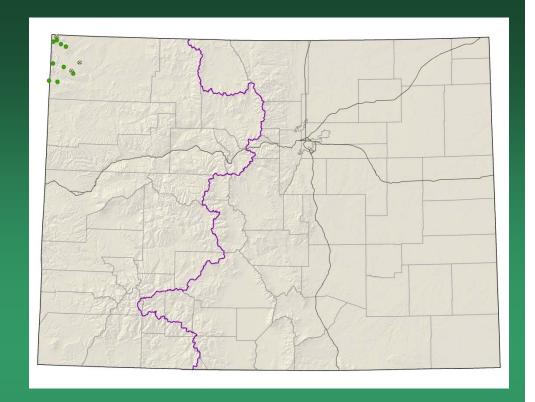
- <u>Federal status</u>: BLM sensitive
- Heritage ranks: G2/S2
- Global distribution: Colorado endemic (Rio Blanco County)
- <u>Elevation range</u>: 5,250-9,190 ft.
- Last observed in Colorado: 2016
- Colorado occurrences: 24 (9 are historical)
- Colorado individuals: >24,500
- Primary threats: Oil shale mining and oil and gas development
- Land ownership/management: BLM, private

#### Nuttallia rhizomata





# Oenothera acutissima narrow-leaf evening-primrose



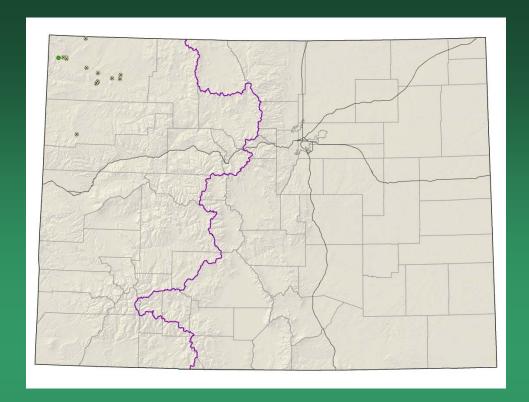
- Federal status: BLM sensitive
- Heritage ranks: G2/S2
- Global distribution: Utah and Colorado (Moffat County)
- <u>Elevation range</u>: 5,300-9,100 ft.
- <u>Last observed in Colorado</u>: 2013
- Colorado occurrences: 14 (3 are historical)
- Colorado individuals: >4,000
- Primary threats: hydrologic alteration, habitat degradation from livestock use
- Land ownership/management: BLM, NPS, state, private



#### Oenothera acutissima



# Oxytropis besseyi var. obnapiformis Bessey's locoweed

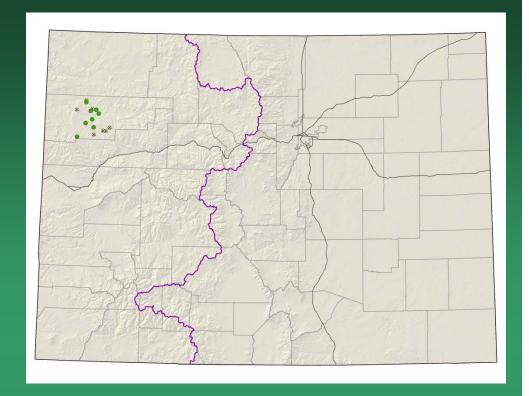


- Federal status: none
- Heritage ranks: G5T2/S2
- Global distribution: Utah, Wyoming, and Colorado (Moffat and Rio Blanco Cos.)
- <u>Elevation range</u>: 5,360-8,430 ft.
- <u>Last observed in Colorado</u>: 2012
- Colorado occurrences: 14 (13 are historical)
- Colorado individuals: unknown, perhaps in the 100s
- Primary threats: oil and gas development
- Land ownership/management: BLM, NPS, state, private

### Oxytropis besseyi var. obnapiformis



# Penstemon fremontii var. glabrescens Fremont's beardtongue



- Federal status: none
- Heritage ranks: G3G4T2/S2
- Global distribution: Colorado endemic (Rio Blanco County)
- <u>Elevation range</u>: 5,515-8,580 ft.
- Last observed in Colorado: 2010
- Colorado occurrences: 15 (7 are historical)
- Colorado individuals: unknown
- Primary threats: oil and gas development
- Land ownership/management: BLM, state, private

### Penstemon fremontii var. glabrescens



# Penstemon scariosus var. cyanomontanus Plateau penstemon



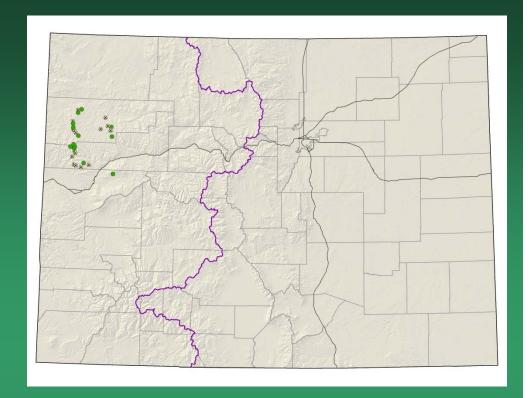
- <u>Federal status</u>: none
- Heritage ranks: G4T2/S2
- Global distribution: Utah and Colorado (Moffat County)
- <u>Elevation range</u>: 5,270-8,790 ft.
- <u>Last observed in Colorado</u>: 2013
- Colorado occurrences: 6 (1 historical)
- Colorado individuals: >19,000
- Primary threats: incompatible grazing
- Land ownership/management: NPS, BLM, state



Penstemon scariosus var. cyanomontanus



## Physaria parviflora= Lesquerella parviflora Piceance bladderpod



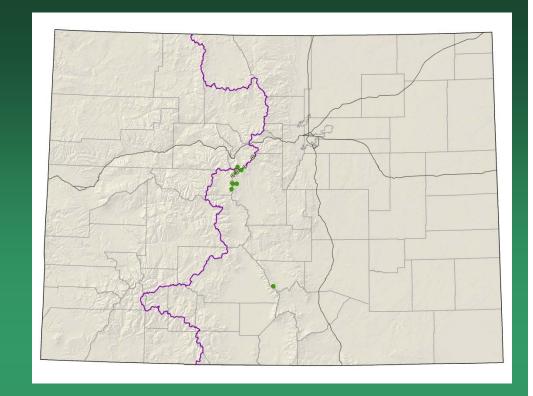
- Federal status: BLM sensitive
- Heritage ranks: G2/S2
- Global distribution: Colorado endemic (Rio Blanco, Garfield, and Mesa counties)
- <u>Elevation range</u>: 6,115-8,940 ft.
- <u>Last observed in Colorado</u>: 2012
- Colorado occurrences: 28 (16 are historical)
- Colorado individuals: >230,000
- Primary threats: Oil shale mining and oil and gas development
- Land ownership/management: BLM, state, private, USFS



Physaria parviflora



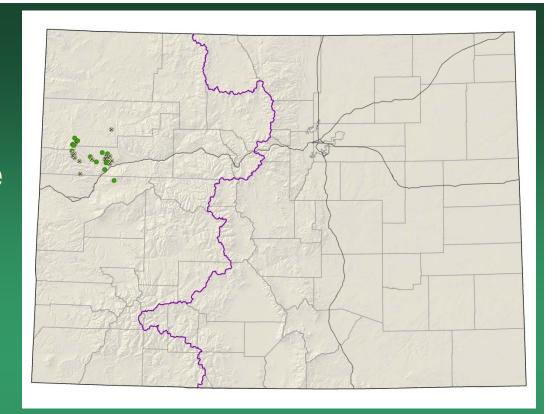
## Saussurea weberi Weber's saw-wort



- Federal status: none
- Heritage ranks: G2G3/S2
- <u>Global distribution</u>: Regional endemic of southwest Montana, northwest Wyoming, and central Colorado (Custer, Fremont, Park and Summit counties)
- <u>Elevation range</u>: 11,630-13,125 ft.
- <u>Last observed in Colorado</u>: 2016
- Colorado occurrences: 13 (5 are historical)
- Colorado individuals: 6000-10,000
- Primary threats: may be threatened by mining and alpine grazing
- Land ownership/management: BLM, private, USFS



# Thalictrum heliophilum Sun-loving meadowrue

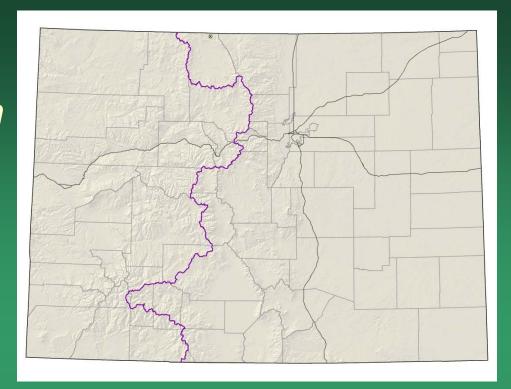


- <u>Federal status</u>: BLM & UFSF sensitive
- Heritage ranks: G2/S2
- Global distribution: Colorado endemic (Garfield, Mesa, and Rio Blanco counties)
- <u>Elevation range</u>: 5,950-8,900 ft.
- <u>Last observed in Colorado</u>: 2015
- Colorado occurrences: 33 (18 are historical)
- Colorado individuals: <200,000
- Primary threats: Oil and gas development, grazing, weeds
- Land ownership/management: BLM, state, private, USFS

### Thalictrum heliophilum



# Thelypodium paniculatum Northwest thelypody



- Federal status: none
- Heritage ranks: G2/SH
- Global distribution: Idaho, Montana, Wyoming, and Colorado (Jackson County)
- <u>Elevation range</u>: 7,000-8,000 ft.
- <u>Last observed in Colorado</u>: 1903
- Colorado occurrences: 1 historical
- Colorado individuals: unknown
- Primary threats: altered hydrology?
- Land ownership/management: BLM, private, USFS

#### Thelypodium paniculatum

