The Colorado Rare Plant Technical Committee presents:

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Colorado Rare Plant Symposium

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Sponsored by:

Colorado Rare Plant Technical Committee
Colorado Native Plant Society
University of Colorado Herbarium
US Fish and Wildlife Service
Colorado Natural Heritage Program
USDA Forest Service
Astragalus anisus
Gunnison milkvetch

- **Federal status**: BLM sensitive
- **Heritage ranks**: G2G3/S2S3
- **Global distribution**: endemic to Colorado (Gunnison & Saguache counties)
- **Last observed in Colorado**: Lederer & Clark 2004
- **Colorado occurrences**: 40, 3 historical, 1 extirpated
- **Colorado individuals**: 5000-10,000?
- **Primary threats**: 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, USFS, NPS, state, private
Astragalus anisus
Astragalus cronquistii
Cronquist’s milkvetch

- Federal status: BLM sensitive
- Heritage ranks: G2/S2
- Global distribution: Utah and Colorado (Montezuma county)
- Last observed in Colorado: 1993
- Colorado occurrences: 13, 8 historical
- Colorado individuals: ~1500
- Primary threats: roads, unknown
- Land ownership/management: Tribal
Astragalus cronquistii
**Astragalus equisolensis** =

*A. desperatus var. neeseae*

**Horseshoe milkvetch**

- **Federal status:** none
- **Heritage ranks:** G5T1/S1
- **Global distribution:** Utah and Colorado (Mesa County)
- **Last observed in Colorado:** 2008
- **Colorado occurrences:** 1 (plus 3 historic)
- **Colorado individuals:** ~50
- **Primary threats:** unknown
- **Land ownership/management:** BLM, private
Astragalus equisolensis
**Astragalus iodopetalus**

**violet milkvetch**

- **Federal status**: none
- **Heritage ranks**: G2/S1
- **Global distribution**: New Mexico (historic) and Colorado (Archuleta, Gunnison, La Plata and Montrose counties).
- **Last observed in Colorado**: Edwards 1993
- **Colorado occurrences**: 4, 3 historical
- **Colorado individuals**: unknown
- **Primary threats**: unknown
- **Land ownership/management**: USFS, Chimney Rock Archeological Area
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)  
- **Last observed in Colorado**: 2008  
- **Colorado occurrences**: 40, 14 historical  
- **Colorado individuals**:  
- **Primary threats**: Uranium claims, housing, crop/farming  
- **Land ownership/management**: BLM, private
Astragalus naturitensis
Astragalus piscator
Fisher Towers milkvetch

- **Federal status**: BLM sensitive
- **Heritage ranks**: G2G3/S1
- **Global distribution**: Utah and Colorado (Mesa County)
- **Last observed in Colorado**: 2008
- **Colorado occurrences**: 3
- **Colorado individuals**: 3000-5000
- **Primary threats**: recreation, roads
- **Land ownership/management**: BLM
Astragalus piscator
Astragalus rafaelensis
San Rafael milkvetch

- **Federal status**: BLM sensitive
- **Heritage ranks**: G2G3/S1
- **Global distribution**: Navajo Basin endemic. Utah and Colorado (Montrose, Mesa and La Plata counties)
- **Last observed in Colorado**: 2008
- **Colorado occurrences**: 8 or more (2 are historical)
- **Colorado individuals**: >1000
- **Primary threats**: unknown
- **Land ownership/management**: BLM, private
Astragalus rafaelensis
Boechera crandallii =
Arabis crandallii
Crandall’s rock-cress

- **Federal status:** BLM sensitive
- **Heritage ranks:** G2/S2
- **Global distribution:** Wyoming and Colorado (Gunnison, Chaffee, and Lake counties)
- **Last observed in Colorado:** 2007
- **Colorado occurrences:** 16
- **Colorado individuals:**
- **Primary threats:** habitat loss/degradation, road construction
- **Land ownership/management:** USFS, BLM, private
Boechera crandallii
**Camissonia eastwoodiae**
Eastwood evening primrose

- **Federal status**: none
- **Heritage ranks**: G2/S1
- **Global distribution**: Utah and Colorado (Delta and Mesa counties)
- **Last observed in Colorado**: 2003
- **Colorado occurrences**: 4 (2 are historical)
- **Colorado individuals**: several thousand
- **Primary threats**: unknown
- **Land ownership/management**: BLM, private
Camissonia eastwoodiae
Castilleja puberula
donny indian paintbrush

- **Federal status**: none
- **Heritage ranks**: G2G3/S2S3
- **Global distribution**: Colorado endemic (Park, Larimer, Clear Creek, Boulder, and Grand counties)
- **Last observed in Colorado**: 2002
- **Colorado occurrences**: 19 (13 are historical)
- **Colorado individuals**: >250
- **Primary threats**: May be threatened by off-road-vehicle use
- **Land ownership/management**: USFS, private
**Cirsium perplexans**

adobe thistle

- **Federal status:** BLM & USFS sensitive
- **Heritage ranks:** G2G3/S2S3
- **Global distribution:** Colorado endemic (Delta, Mesa, Montrose, Gunnison, Garfield, and Ouray counties)
- **Last observed in Colorado:** 2006
- **Colorado occurrences:** 30 (6 are historical)
- **Colorado individuals:** ~4000
- **Primary threats:** Bio or other control for non-native thistles
- **Land ownership/management:** BLM, private, USFS, NPS, state
Cirsium perplexans
Draba graminea
San Juan whitlow-grass

- **Federal status**: none
- **Heritage ranks**: G2/S2
- **Global distribution**: Colorado endemic (Dolores, Hinsdale, La Plata, Montezuma, Ouray, San Juan, and San Miguel counties)
- **Last observed in Colorado**: 2008
- **Colorado occurrences**: 25 (9 are historical)
- **Colorado individuals**: >8000
- **Primary threats**: Non-motorized recreation
- **Land ownership/management**: USFS, private
Draba graminea
Erigeron kachinensis
kachina daisy

- Federal status: BLM sensitive
- Heritage ranks: G2/S1
- Global distribution: Utah and Colorado (Montrose county)
- Last observed in Colorado: 2008
- Colorado occurrences: 2
- Colorado individuals: est. 7,600
- Primary threats: 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)
- **Last observed in Colorado**: 1990
- **Colorado occurrences**: 8 (4 are historical)
- **Colorado individuals**: unknown
- **Primary threats**: road construction, exploration for oil and gas, and a proposed system of irrigation canals on the Reservation
- **Land ownership/management**: Ute Mountain Ute
Eriogonum clavellatum
**Eriogonum coloradense**

Colorado wild buckwheat

- **Federal status**: BLM sensitive
- **Heritage ranks**: G2/S2
- **Global distribution**: Colorado endemic (Gunnison, Park, Pitkin, and Saguache counties)
- **Last observed in Colorado**: 2004
- **Colorado occurrences**: 21 (15 are historical)
- **Colorado individuals**: ~5000
- **Primary threats**: recreation
- **Land ownership/management**: USFS, BLM, private
Eriogonum coloradense
**Lepidium crenatum**
alkaline pepperwort

- **Federal status**: none
- **Heritage ranks**: G2/S2
- **Global distribution**: documented from Moffat, Rio Blanco, Mesa, Delta, Montrose and Montezuma counties in Colorado, may be present in Utah and New Mexico.
- **Last observed in Colorado**: 1998
- **Colorado occurrences**: 14 (11 are historical)
- **Colorado individuals**: unknown
- **Primary threats**: unknown
- **Land ownership/management**: BLM, private
Lepidium crenatum
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)
- **Last observed in Colorado**: 2008
- **Colorado occurrences**: 17 (2 are historical)
- **Colorado individuals**: 5,000 to 20,000
- **Primary threats**: Residential and commercial development
- **Land ownership/management**: USFS, private, BLM
Lesquerella pruinosa
Lesquerella vicina
Montrose bladderpod

• **Federal status:** BLM sensitive
• **Heritage ranks:** G2/S2
• **Global distribution:** Colorado endemic (Montrose and Ouray counties)
• **Last observed in Colorado:** 2008
• **Colorado occurrences:** 19
• **Colorado individuals:** >9,000
• **Primary threats:** Roads and recreational uses
• **Land ownership/management:** BLM, state, private
Lesquerella vicina
**Lomatium concinnum**
Colorado desert-parsley

- **Federal status**: BLM sensitive
- **Heritage ranks**: G2G3/S2S3
- **Global distribution**: Colorado endemic (Delta, Montrose, and Ouray counties)
- **Last observed in Colorado**: 2008
- **Colorado occurrences**: 38 (4 are historical)
- **Colorado individuals**: >70,000
- **Primary threats**: Motorized recreation
- **Land ownership/management**: BLM, private, USFS
Lomatium concinnum
Lupinus crassus
Payson lupine

- **Federal status**: BLM sensitive
- **Heritage ranks**: G2/S2
- **Global distribution**: Colorado endemic (Montrose and Gunnison counties)
- **Last observed in Colorado**: 2000
- **Colorado occurrences**: 21 (12 are historical)
- **Colorado individuals**: >100,000
- **Primary threats**: Incompatible grazing
- **Land ownership/management**: USFS, BLM, private
Lupinus crassus
Machaeranthera coloradoensis
Colorado tansy-aster

- **Federal status:** USFS sensitive
- **Heritage ranks:** G2/S2
- **Global distribution:** Wyoming and Colorado (Chaffee, Dolores, Gunnison, Hinsdale, La Plata, Lake, Park, Pitkin, Rio Grande, Saguache, San Juan counties)
- **Last observed in Colorado:** 2008
- **Colorado occurrences:** 32 (5 are historical)
- **Colorado individuals:** unknown
- **Primary threats:** unknown
- **Land ownership/management:** USFS, private
Machaeranthera coloradoensis
Oreocarya osterhoutii = Cryptantha osterhoutii
Osterhout cat’s-eye

- **Federal status**: BLM sensitive
- **Heritage ranks**: G2G3/S2
- **Global distribution**: Utah and Colorado (Mesa and Gunnison counties)
- **Last observed in Colorado**: 2008
- **Colorado occurrences**: 9 (7 are historical)
- **Colorado individuals**: ~1500?
- **Primary threats**: unknown
- **Land ownership/management**: BLM, private
Physaria alpina
Avery Peak twinpod

- Federal status: none
- Heritage ranks: G2/S2
- Global distribution: Colorado endemic (Lake, Gunnison, Pitkin and Park counties)
- Last observed in Colorado: 2007
- Colorado occurrences: 7 (3 are historical)
- Colorado individuals: >4000
- Primary threats: off-road vehicle use
- Land ownership/management: USFS, private
Physaria alpina
Physaria rollinsii
Rollins’ twinpod

- **Federal status**: none
- **Heritage ranks**: G2/S2
- **Global distribution**: Colorado endemic (Mesa and Gunnison counties)
- **Last observed in Colorado**: 2003 (Hogan specimen at COLO)
- **Colorado occurrences**: 8 (7 are historical)
- **Colorado individuals**: unknown
- **Primary threats**: unknown
- **Land ownership/management**: Forest Service
Physaria rollinsii
**Puccinellia parishii**
Parish’s alkali grass

- **Federal status**: none
- **Heritage ranks**: G2/S1
- **Global distribution**: New Mexico, Arizona, California, and Colorado (San Miguel County)
- **Last observed in Colorado**: 1998
- **Colorado occurrences**: 1, with numerous sub-occurrences
- **Colorado individuals**: 20,000-35,000
- **Primary threats**: altered hydrology
- **Land ownership/management**: private, state
Puccinellia parishii
**Salix arizonica**  
Arizona willow

- **Federal status:** USFS sensitive  
- **Heritage ranks:** G2G3/S1  
- **Global distribution:** Arizona, New Mexico, Utah, and Colorado (Conejos Co.)  
- **Last observed in Colorado:** 2004  
- **Colorado occurrences:** 1  
- **Colorado individuals:** unknown – 2 dense clumps  
- **Primary threats:** incompatible grazing, hydrologic alteration  
- **Land ownership/management:** USFS – Rio Grande NF
Salix arizonica
Thelypodiopsis juniperorum
juniper tumble mustard

- **Federal status**: none
- **Heritage ranks**: G2/S2
- **Global distribution**: Colorado endemic (Montrose, Gunnison and Delta counties)
- **Last observed in Colorado**: 2004
- **Colorado occurrences**: 16 (5 are historical)
- **Colorado individuals**: 100’s
- **Primary threats**: grazing, off-road vehicle use, non-native species invasion
- **Land ownership/management**: BLM, private
Thelypodiopsis juniperorum
Townsendia glabella
Gray’s townsend-daisy

- **Federal status**: none
- **Heritage ranks**: G2/S2
- **Global distribution**: Colorado endemic (Archuleta, La Plata and Montezuma counties)
- **Last observed in Colorado**: 2008
- **Colorado occurrences**: 19 (9 are historical)
- **Colorado individuals**: >1,250
- **Primary threats**: Residential development
- **Land ownership/management**: USFS, private
Townsendia glabella
Townsendia rothrockii
Rothrock townsend-daisy

- **Federal status**: none
- **Heritage ranks**: G2G3/S2S3
- **Global distribution**: Colorado endemic (Dolores, Gunnison, Hinsdale, La Plata, Lake, Mesa, Ouray, Park, Pitkin, San Juan, and Summit counties)
- **Last observed in Colorado**: 2007
- **Colorado occurrences**: 28 (14 are historical)
- **Colorado individuals**: >4300
- **Primary threats**: motorized recreation
- **Land ownership/management**: USFS, private
Townsendia rothrockii
Some new species to be added to the CNHP database

*Draba malphigiaceae* (Hinsdale, La Plata and Montezuma counties)

*Descurainia kenheillii* (alpine tundra in San Juan Mtns.)

*Physaria scrotiformis* (upper subalpine–lower alpine zone San Juan Mtns.)