Field Guide to the Special Status Plants of the Bureau of Land Management Twin Falls District, Jarbidge Field Office Area

BLM

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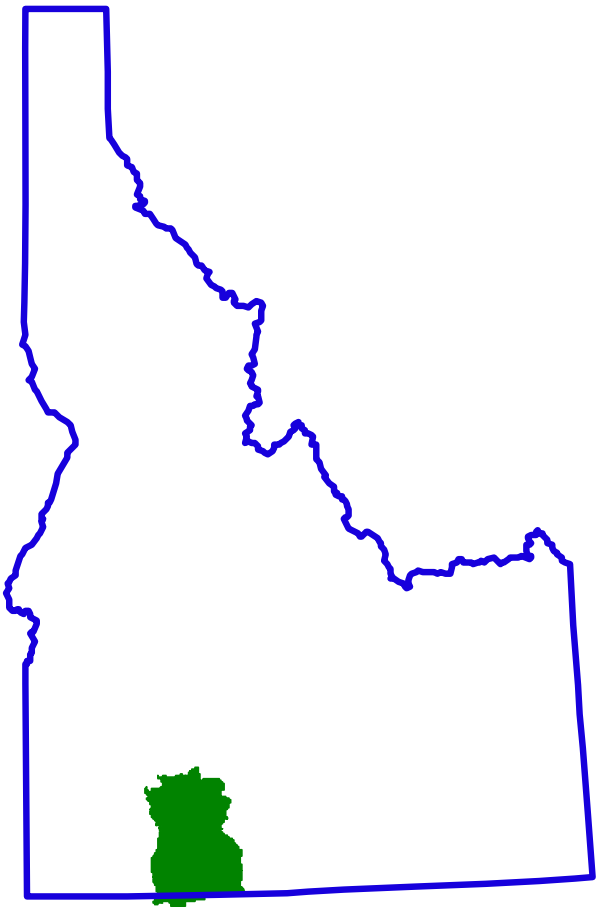

Prepared by:
Sheri Hagwood
June 2006

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INTRODUCTION

This collection of information includes all known to occur or expected to occur special status plant species in the Jarbidge Resource Area of the Twin Falls District, Idaho BLM. It was compiled for use by field personnel and contains photographs, line drawings, and general location maps, when available.

The Bureau of Land Management (BLM) manages special status species under the policy established in the BLM Manual (Section 6840) in addition to requirements set forth under the Endangered Species Act. State laws protecting species applies to all BLM programs and actions to the extent that they are consistent with the Federal Land Policy and Management Act (FLPMA). An annual Memorandum of Understanding between the Idaho Department of Fish and Game and the BLM State Director sets forth a list of special status species which BLM will manage for. Species are ranked by BLM Type which is as follows:

Type 1. Threatened, Endangered, Proposed and Candidate Species
These species are listed by the FWS as threatened or endangered, or they are proposed or candidates for listing under the Endangered Species Act.

Type 2. Rangewide/Globally Imperiled Species – High Endangerment
These species that have a high likelihood of being listed in the foreseeable future due to their global rarity and significant endangerment factors.

Type 3. Rangewide/Globally Imperiled Species – Moderate Endangerment
These are species that are globally rare with moderate endangerment factors. Their global rarity and inherent risks associated with rarity make them imperiled species.

Type 4. Species of Concern
These are species that are generally rare in Idaho with small populations or localized distribution and currently have low threat levels. However, due to the small populations and habitat area, certain future land uses in close proximity could significantly jeopardize these species.

Type 5. Watch List
Watch list species are not considered BLM sensitive species and associated sensitive species policy guidance does not apply. Watch list species include species that may be added to the sensitive species list depending on new information concerning threats and species biology or statewide trends.

The following are brief accounts of the sensitive plants in the Jarbidge Resource Area. Because the Jarbidge Resource Area includes a portion of the State of Nevada, plants listed by the Nevada BLM as special status species which occur or may occur within the Jarbidge Resource Area are also included in this document.

Distribution by Vegetation Type and Habitat

*found in specialized habitats within these communities

Aspen/tall forb and false hellebore/forb
Phacelia minutissima

Mountain big sagebrush
*Astragalus yoder-williamsii
*Primula cusickiana

Low sagebrush
Allium anceps
Astragalus yoder-williamsii
Erigeron latus
Eriogonum lewisii
Ipomopsis polycladon
Pediocactus simpsonii
*Penstemon janishiae

Wyoming sagebrush
Astragalus tetrapterus
Chaenactis stevioides
*Cymopterus acaulis greeleyorum
Erigeron latus
Nemacladus rigidus
Pediocactus simpsonii
*Lepidium papilliferum
Texosporium sancti-jacobi

Wyoming sagebrush-shadscale
Astragalus newberryi castoreus
Chaenactis stevioides
*Cymopterus acaulis greeleyorum
Eatonella nivea
*Eriogonum shockleyi (both varieties)
Ipomopsis polycladon
Nemacladus rigidus
Pediocactus simpsonii

Playa (large hard-bottomed)
Lepidium davisii
Lepidium papilliferum

Rhyolitic canyon walls or base of cliffs
Leptodactylon glabrum

Springs and/or transition zones
Phacelia minutissima

Salt desert shrub
Astragalus newberryi castoreus
Catapyrenium congestum
*Cleomella plocasperma
Cymopterus acaulis greeleyorum
Eatonella nivea
Eriogonum ochrocephalum calcareum
*Eriogonum shockleyi (both varieties)
Ipomopsis polycladon
Glyptopleura marginata
Nemacladus rigidus
Peteria thompsoniae
*Penstemon janishiae

Greasewood
Cleomella plocasperma
Glyptopleura marginata

Riparian/Wetland
Epipactis gigantea
Teucrium canadense occidentale

Horsebrush
Chaenactis stevioides
Ipomopsis polycladon

Indian ricegrass
Chaenactis stevioides
Cymopterus acaulis greeleyorum

Needle-&-thread/Indian ricegrass
Astragalus purshii ophiogenes

Black sagebrush (calcareous sites)
Aspicilia fruticulosa

Meadow
Phacelia minutissima

Mountain mahogany
Primula cusickiana

Rabbitbrush/disturbed Wyoming big sagebrush sites
Texosporium sancti-jacobi

Distribution by Soil Characteristics and Hydrology

Coarse sand
Astragalus purshii ophiogenes
Chaenactis stevioides
Ipomopsis polycladon
Glyptopleura marginata
Nemacladus rigidus

Fine alluvial sand
Astragalus purshii ophiogenes
Eatonella nivea
Ipomopsis polycladon
Nemacladus rigidus

Lakebed sediment badlands
Astragalus newberryi castoreus
Cymopterus acaulis greeleyorum
Eriogonum shockleyi (both varieties)
Glyptopleura marginata
Peteria thompsoniae
Penstemon janishiae

Volcanic ash
Aspicilia fruticulosa
Cymopterus acaulis greeleyorum
Glyptopleura marginata
Peteria thompsoniae
Penstemon janishiae

Oolitic limestone
Eriogonum shockleyi (both varieties)

Rhyolitic cliffs and talus
Leptodactylon glabrum

Playa or natric areas
Allium anceps
Lepidium davisii
Lepidium papilliferum

Calcareous hot or cold springs
Epipactis gigantean

Sandy or tuffaceous soils
Astragalus tetrapterus

Gravelly desert "pavement"
Eriogonum shockleyi (both varieties)
Glyptopleura marginata
Pediocactus simpsonii

Clay
Cleomella plocasperma?
Eriogonum ochrocephalum calcareum
Penstemon janishiae
Primula cusickiana

Silt loam
Ipomopsis polycladon

Loam
Astragalus yoder-williamsii
Primula cusickiana

Thin soil over basalt
Erigeron latus
Pediocactus simpsonii

Volcanic cinder
Astragalus yoder-williamsii
Eatonella nivea
Erigeron latus
Glyptopleura marginata
Nemacladus rigidus
Peteria thompsoniae
Pediocactus simpsonii

Streambanks
Epipactis gigantea
Teucrium canadense occidentale

Clay loam
Primula cusickiana
Texosporium sancti-jacobi

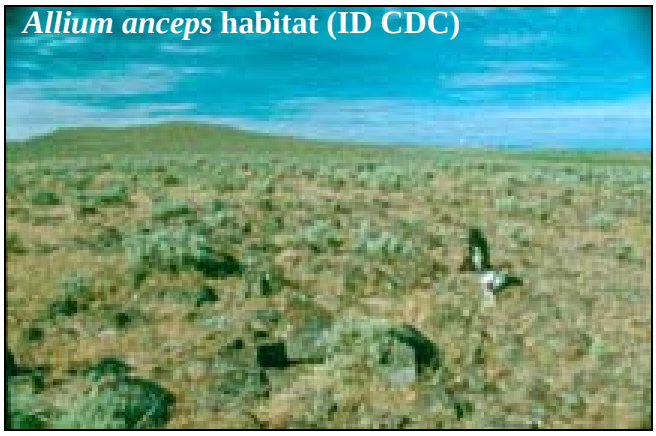
Barren or slightly natric sites
Catapyrenium congestum
Eriogonum lewisii

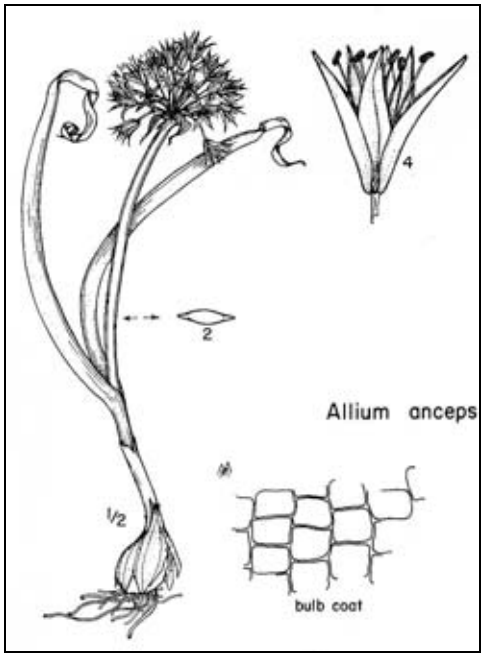
Seasonally wet areas
Allium anceps
Phacelia minutissima
Primula cusickiana

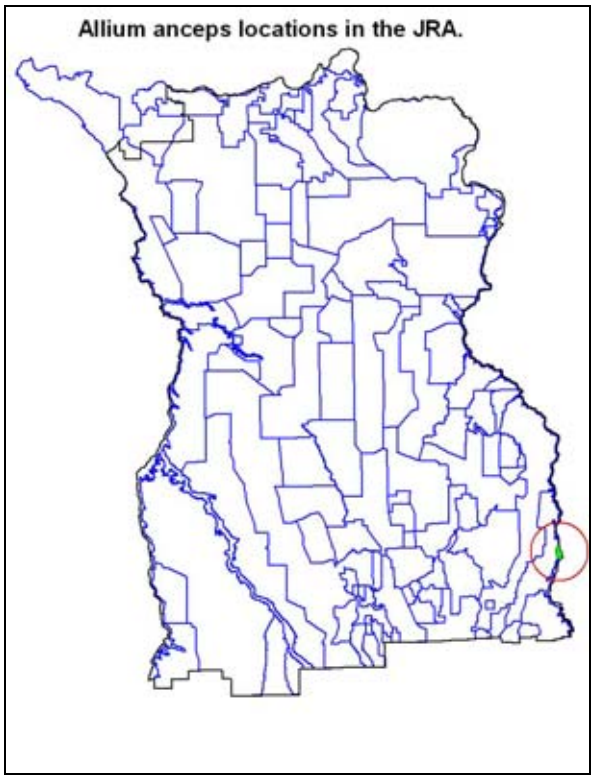
Moist bottom-lands
Teucrium canadense occidentale

Thin soil over granitic rock
Astragalus yoder-williamsii
Erigeron latus

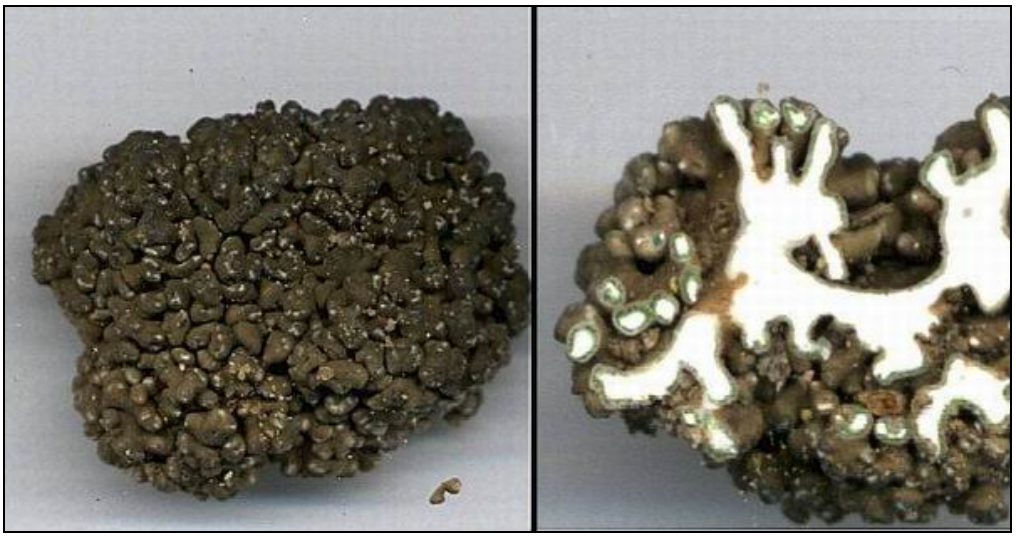
Scientific Name: *Allium anceps* Kellogg
Symbol: ALAN
Common Name: Two-headed onion
Family (Common Name): Liliaceae (Lily Family)
Status: Idaho BLM Sensitive Type 3
Flowering Period: (early April) May through June (July)
Habitat: heavy barren soils of volcanic origin in or around seasonally wet playas, swales, and other low places, or thin, rocky soil in the sagebrush zone; sites are usually flat to gently sloping, and sparsely vegetated; 1500-1600 m elevations
Associates: *Artemisia arbuscula, Eriogonum microthecum, Astragalus calycosus*
Distribution: may occur in se JRA; most known Idaho populations are in Twin Falls County, one occurrence is also known from Jerome County north of the Snake River, populations in Owyhee and Cassia counties should also be expected; widespread in Nevada, extending into se Oregon, ne California, and southern Idaho
Key Characteristics: flattened stems; pair of relatively narrow, more-or-less sickle-shaped leaves; slender, lance-linear shaped tepals mostly more than 4 times as long as wide; and stamens equaling or shorter than the tepals; perennial forbs with broadly egg-shaped underground bulbs having a thick, yellowish, cellular-patterned coat; bulbs give rise to a flattened, minutely scabrous-margined stem about 10-15 cm tall, each with a pair of sickle-shaped, scabrous-margined leaves 4-6 mm wide and up to twice as long as the scape, the leaves fall off the plant at maturity; stems are terminated by an umbel containing 15-25 pinkish-colored flowers that have a diffuse green midrib, slender, lance-linear-shaped tepals are 6-10 mm long and attached to the umbel by pedicels roughly three times as long as the tepals
Flora: Intermountain Flora Volume 6, page 520
Threats: range development projects, livestock trampling, exotic species


Allium anceps habitat (ID CDC)


4
2
Allium anceps
1/2
bulb coat

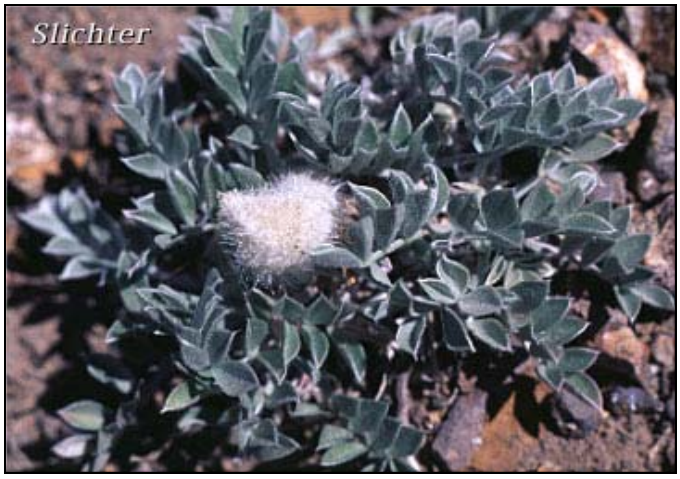

Allium anceps locations in the JRA.

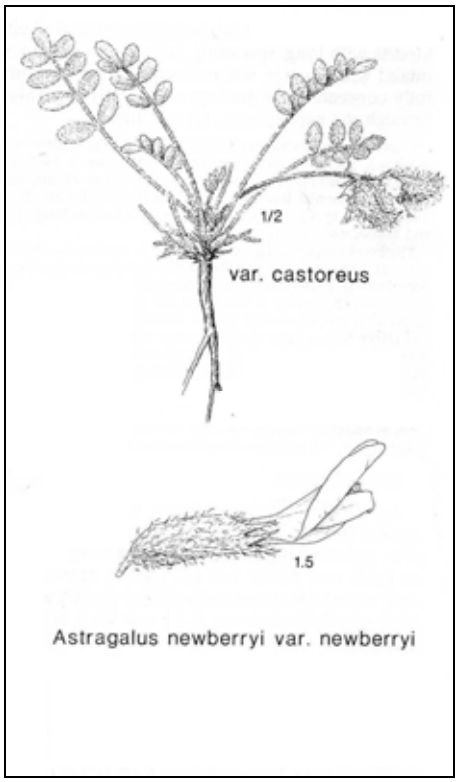
Scientific Name: *Aspicilia fruticulosa* (Eversm.) Flagey
Symbol: ASFR11
Common Name: Coral lichen, tumbleweed lichen, rim lichen
Family (Common Name): Lecanoaceae (Lecanora Family)
Status: Idaho BLM Sensitive Type 5
Flowering Period: fertile early-spring.
Habitat: areas of high soil pH (calcareous soils) and calcareous badlands of volcanic ash deposits in black sagebrush or badland communities; vagrant lichens often do best in slight depressions where liquid water collects and may keep the lichens hydrated for long periods; usually found among shrubs less than 0.5 m tall; 6290 feet (1917 meters)
Associates: in Nevada often in *Artemisia nova* and *Sphaeromeria argentea* habitats
Distribution: Elko (?), Humboldt, and Washoe (?) counties, Nevada; also in CO, ID, MT, OR, UT, WY, Asia, and Africa. Potential habitat throughout Columbia Plateau Ecoregion where grazing is light
Key Characteristics: fruticose soil lichen; olive, brown, or greenish; branching very compact, dichotomous, the branches short, thick, blunt, and tipped with pale spots
Flora: Field Key to the Soil Lichens of Central and Eastern Oregon (McCune and Rosentreter 2001)
Threats: Very sensitive to livestock trampling and other ground disturbances



Aspicilia fruticulosa

Scientific Name: *Astragalus newberryi* A. Gray var. *castoreus* M.E. Jones
Symbol: ASNEC
Common Name: Newberry's milkvetch
Family (Common Name): Fabaceae (Pea Family)
Status: Idaho BLM Sensitive Type 4
Flowering Period: April through May (early July)
Habitat: foothills, bluffs, and badlands within sagebrush and pinyon-juniper communities of the Great Basin; (1025) 1250-2400 (3020) m elevations
Associates: sagebrush
Distribution: may occur in the se JRA; Salmon Falls Creek Valley is northern extension of range; reported in Twin Falls County, Idaho
Key Characteristics: low, stemless perennial; pinnately compound leaves, each leaflet pubescent; flowers are pink-purple with pale pink or whitish margins; closely resembles wooly-pod milkvetch, Newberry's has a hard turbinate crown thatched with stipules and stiff persistent leaf-stalks, whereas, wooly-pod lacks a turbinate crown
Flora: Intermountain Flora Volume 3B, page 129
Threats: unknown

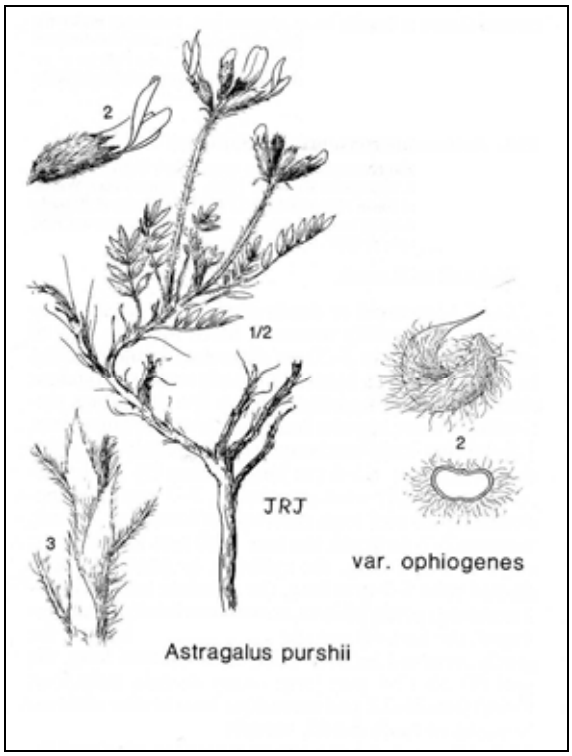



1/2
var. castoreus
1.5
Astragalus newberryi var. newberryi

Astragalus newberryi castoreus locations
in the JRA.

Scientific Name: *Astragalus purshii* Dougl. Ex Hook. var. *ophiogenes* (Barneby) Barneby
Symbol: ASPUO
Common Name: Snake River milkvetch
Family (Common Name): Fabaceae (Pea Family)
Status: Idaho BLM Sensitive Type 4
Flowering Period: late April through June
Habitat: often on barren sites growing in loosely aggregated, frequently moving sand and gravel deposits on bluffs, talus, dunes, and volcanic ash beds; 700-1075 m elevations
Associates: *Artemisia tridentata, Oryzopsis hymenoides, Stipa comata, Atriplex canescens*
Distribution: known along the north boundary, JRA; Snake River Corridor and surrounding uplands from Gooding and Twin Falls counties to Owyhee County in sw Idaho; Malheur Co., Oregon
Key Characteristics: tufted, acaulescent perennial form; flowers pink, racemes mostly 5-11 flowered; calyx less than 9 mm long, strongly incurved, 8-13 mm long, hairy; leaves pinnately compound, leaflets of larger leaves 9-15(17); pods small (8-13 mm long), abruptly and strongly incurved at or above the middle and usually shallowly and obscurely sulcate ventrally, pillose or both pillose and tomentulose
Flora: Intermountain Flora Volume 3B, page 135
Threats: land exchanges, off highway vehicle use, range development projects, and livestock trailing; impacts from livestock may include direct mortality, due to trampling, or the secondary impact of degradation of habitat

***Astragalus purshii ophiogenes* habitat**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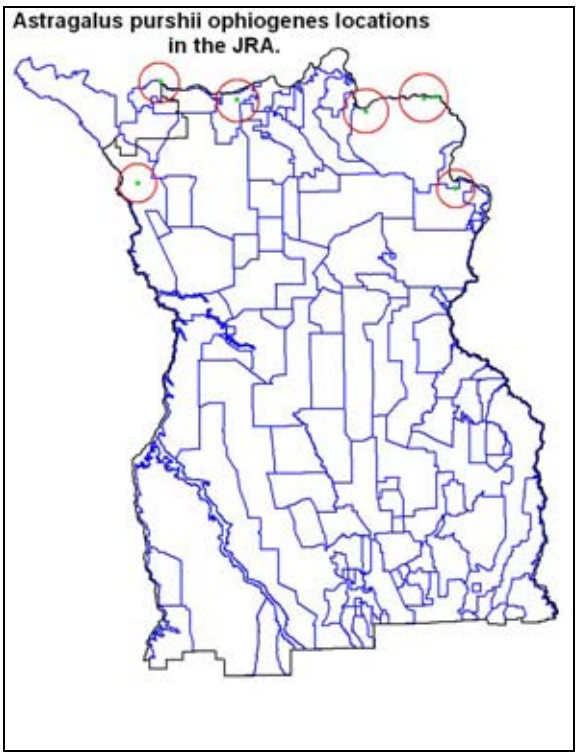
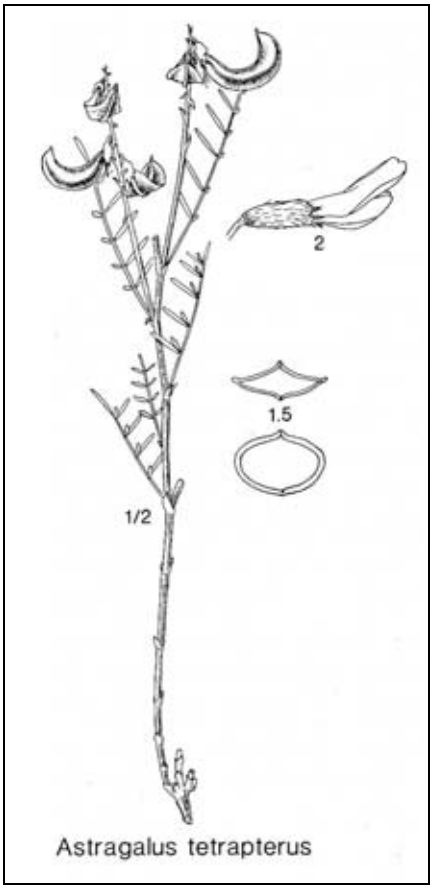
JRJ
3
var. ophiogenes
Astragalus purshii

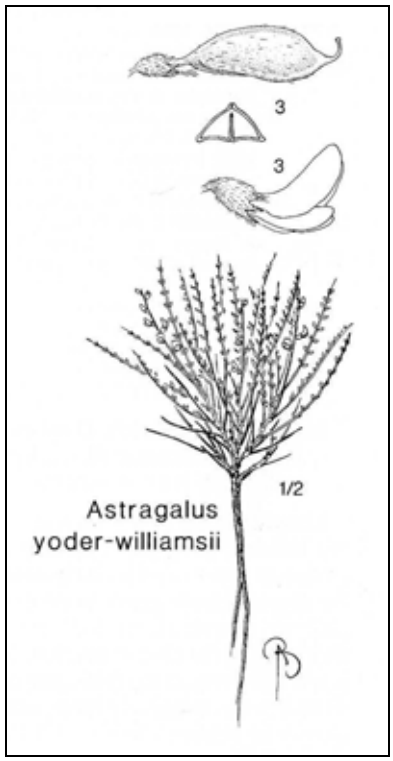

Astragalus purshii ophiogenes locations
in the JRA.

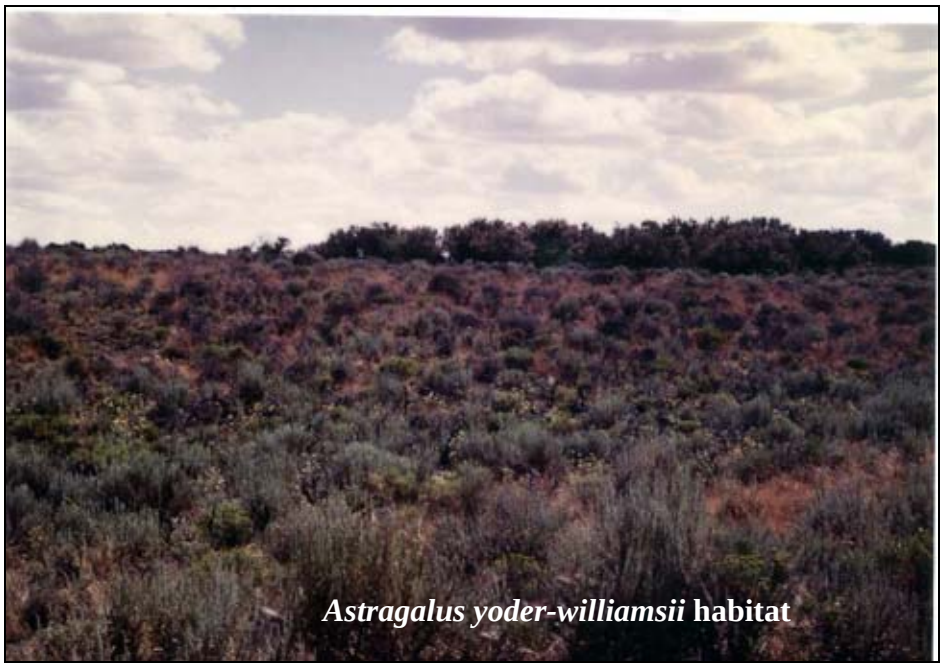
Scientific Name: *Astragalus tetrapterus* Gray
Symbol: ASTE10
Common Name: Four-winged milkvetch
Family (Common Name): Fabaceae (Pea Family)
Status: Idaho BLM Sensitive Type 3
Flowering Period: late April to early July
Habitat: gullied bluffs, barren knolls, stabilized dunes, and open valley floors, mostly in loose sandy or tuffaceous soils at elevations of 1675-1970 m
Associates: in sagebrush climax or pinyon-juniper woodland
Distribution: may occur in se, JRA; widely discontinuously dispersed in the Great Basin from c. Harney Co, Oregon e. through Owyhee Desert to Twin Falls Co, Idaho, s. in Nevada to n. Washoe, n. Nye, and c. Lincoln cos.
Key Characteristics: singular pod which becomes four-sided when ripe
Flora: Intermountain Flora Volume 3B, page 148
Threats: livestock trampling

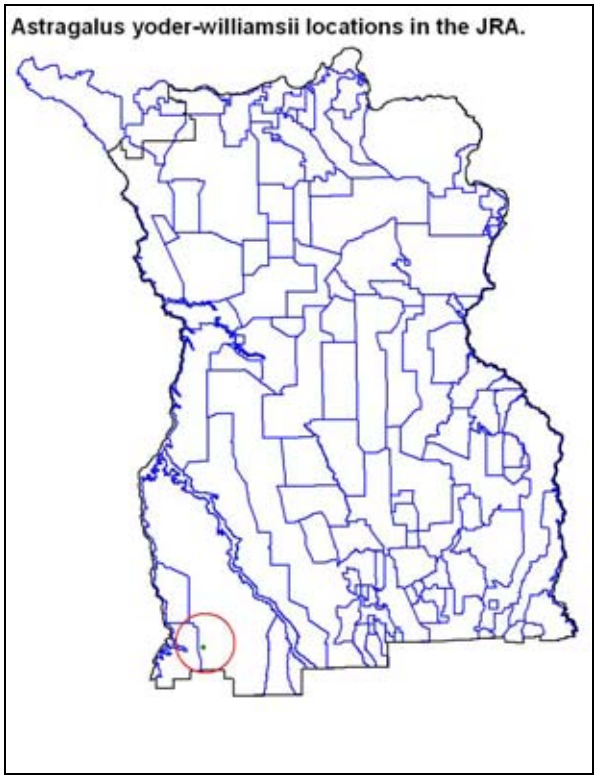


Astragalus tetrapterus locations in the JRA.

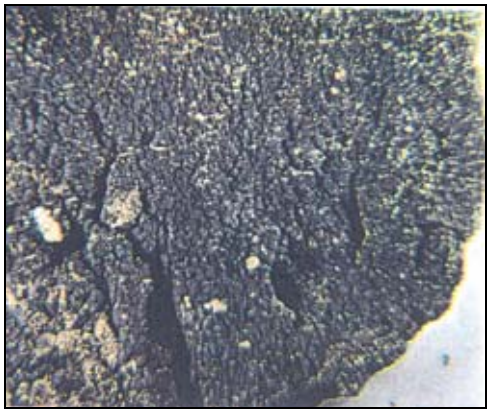
Scientific Name: *Astragalus yoder-williamsii* Barneby
Symbol: ASYO
Common Name: Owhyee milkvetch
Family (Common Name): Fabaceae (Pea Family)
Status: Idaho BLM Sensitive Type 3; Nevada BLM Sensitive
Flowering Period: May to early August; most frequent survey months are June-July
Habitat: occurs in Idaho primarily on flat to very gentle slopes predominately in swale positions supporting healthy mountain big sagebrush dominated communities; elevations range from about 1575 to 2225 m.
Associates: often mixed with *Artemisia arbuscula*; other associates include *A. tridentata vaseyana, Chrysothamnus nauseosus consimilis, Poa sandbergii, Agropyron spicatum, Stipa thurberiana, S. comata, Festuca idahoensis, Elymus cinereus*
Distribution: reported in the Diamond A area, JRA; Owyhee Co, Idaho, and Elko and Humboldt cos., Nevada
Key Characteristics: flowers whitish, 4.5-6.2 mm long; leaf stalks stiff and straight, grass-like; leaflets minute; pods distinctive, 3-sided, small, 4-7 mm long; plants dwarf
Flora: Intermountain Flora Volume 3B, page 96
Threats: includes mineral exploration and development, road maintenance and off-road vehicle use, trampling by livestock and feral horses, habitat degradation due to overgrazing, range development projects, and competition from invasive weeds

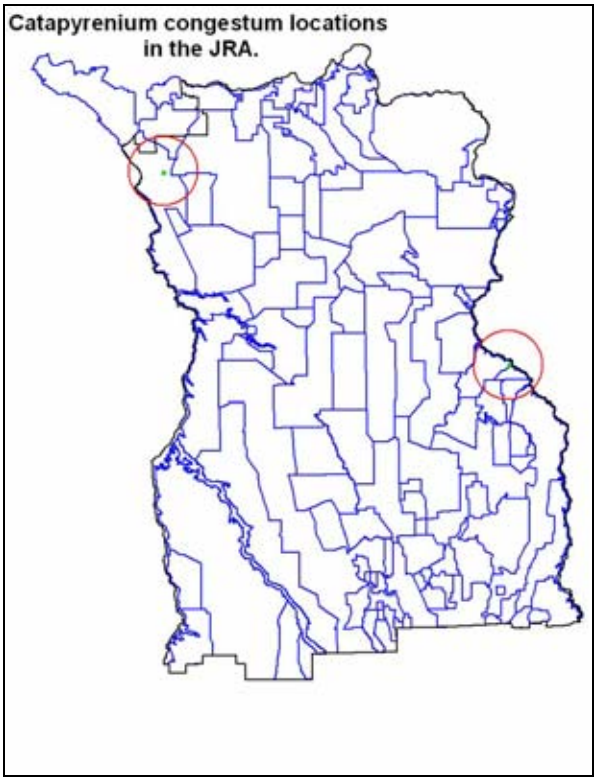



Astragalus yoder-williamsii habitat


Astragalus yoder-williamsii locations in the JRA.

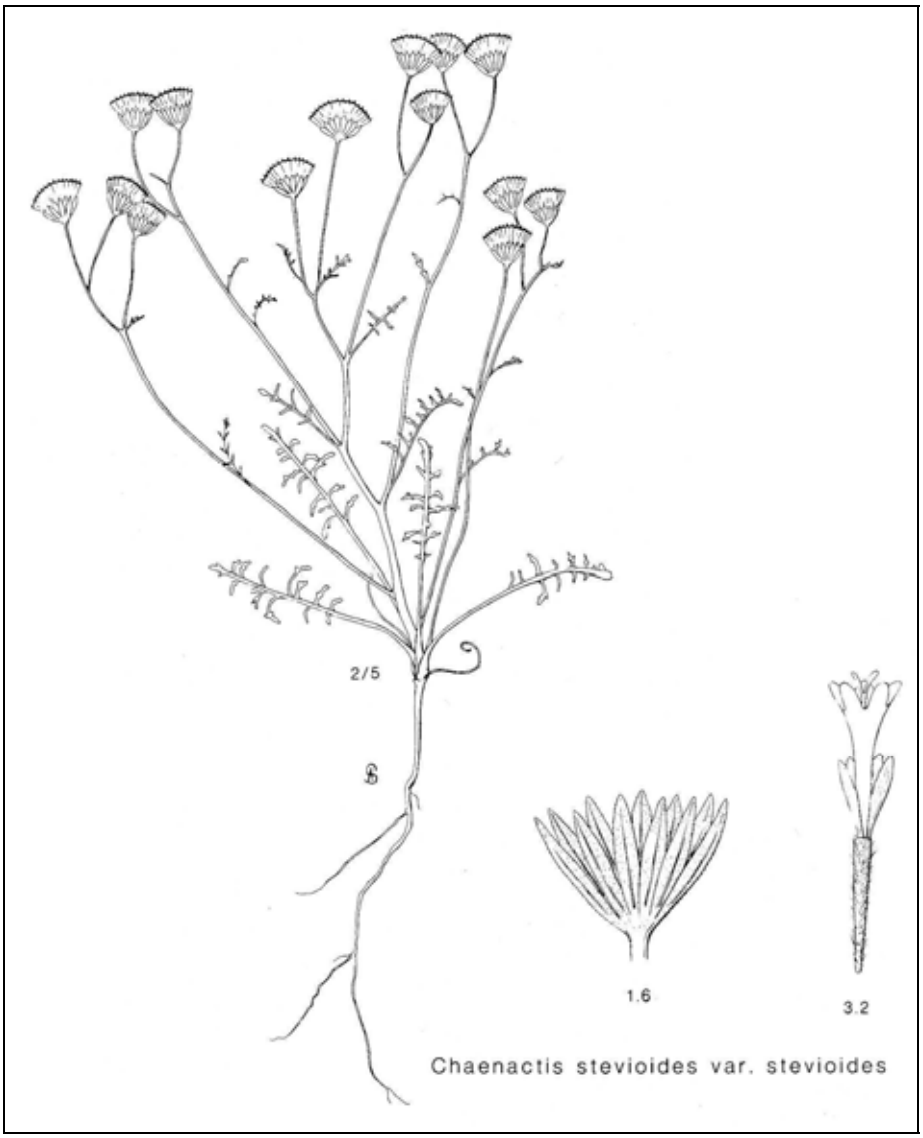
Scientific Name: *Catapyrenium congestum* Bruess & McCune
Symbol: CACO78
Common Name: Earth lichen
Family (Common Name): Verrucariaceae (Verrucaria Family)
Status: Idaho BLM Sensitive Type 4
Flowering Period: NA
Habitat: sagebrush or shadscale steppe; restricted to barren, slightly natric soil sites;
Associates: *Poa sandburgii, Phlox hoodii, Castilleja, Stipa comata, Chrysothamnus*
Distribution: known in the Loveridge Gulch and Salmon Falls Creek Canyon (Lily Grade), JRA; Great Basin
Key Characteristics: squamulose lichen, medium-dark brown in color; squamules <2 mm diameter, densely clustered, often forming hemispherical mounds; reproduction by perithecium that appear as small black dots on the surface of the squamules
Flora: Field Key to the Soil Lichens of Central and Eastern Oregon (McCune and Rosentreter 2001)
Threats: livestock trampling, salt block placement





Scientific Name: *Chaenactis stevioides* Hook&Arn.
Symbol: CHST
Common Name: Desert pincushion
Family (Common Name): Asteraceae (Sunflower Family)
Status: Idaho BLM Sensitive Type 4
Flowering Period: (April) May through June
Habitat: occurs on open, usually sandy sites at elevations to 1900 m; tolerates alkaline sites
Associates: in salt desert shrub sites and *Artemisia tridentata wyomingensis, Tetradymia, Atriplex canecens, Oryzopsis hymenoides* communities
Distribution: known near CJ Strike Reservoir, JRA; Idaho populations are known from Ada, Elmore, Owyhee cos.; w Colorado, sw Wyoming, w and s Oregon, s California, Baja California, Arizona, n Sonora and w New Mexico
Key Characteristics: annual or winter annual; pappus scales 4, involucre 5-9(10) mm high, corollas 4-9 mm long; involucre bracts green, acute to obtuse; principle leaves pinnatifid or bipinnatifid
Flora: Intermountain Flora Volume 5, page 119
Threats: include competition with introduced annuals, livestock grazing, and off-road vehicles

Chaenactis stevioides habitat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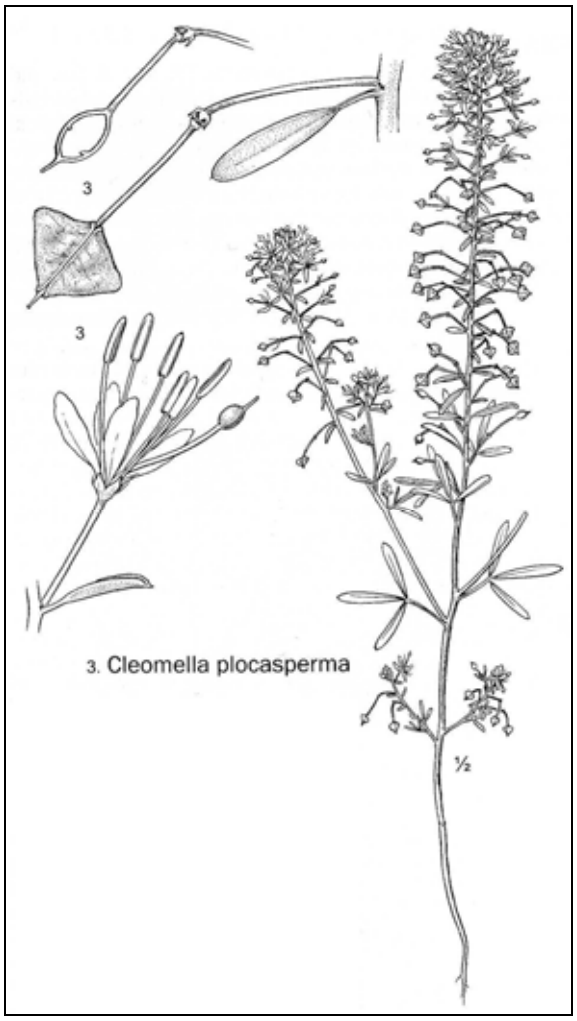
1.6
3.2
Chaenactis stevioides var. stevioides

Chaenactis stevioides locations in the JRA.

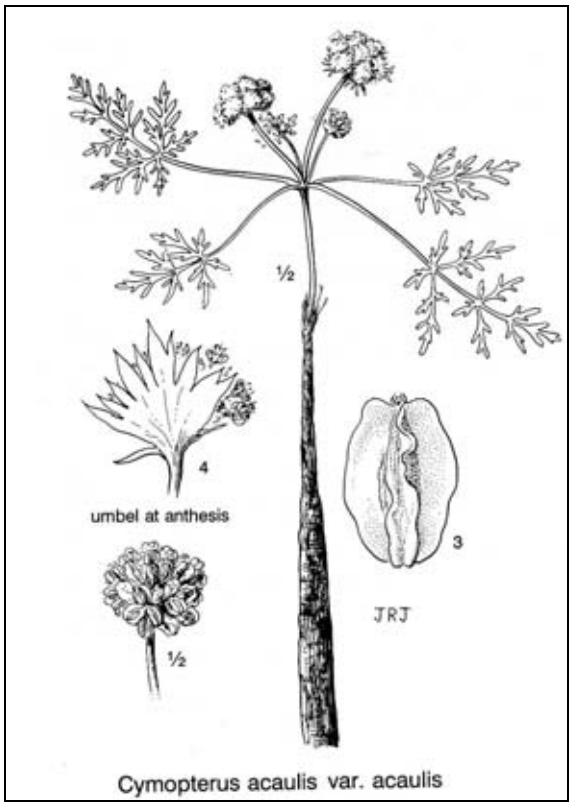
Scientific Name: *Cleomella plocasperma* S. Wats Grimes & Packard
Symbol: CLPL2
Common Name: Alkali cleomella
Family (Common Name): Capparaceae (Caper Family)
Status: Idaho BLM Sensitive Type 3
Flowering Period: May-July (September)
Habitat: wet alkaline meadows, greasewood flats, thermal springs; 800-1400 m elev.
Associates: Greasewood/saltgrass association
Distribution: historic in the Bruneau Valley, JRA; Great Basin to Oregon, Idaho, Utah
Key Characteristics: annual herb with diffuse, strongly ascending branches, 15-40cm tall; malodorous, glabrous; linear leaflets of the alternate, 3-foliate leaves are 7-18mm long and 1-3mm wide; numerous, small yellow flowers in terminal racemes, petals 3.5-7 mm; receptacle spreading in fruit, <6mm, fruit rhomboid with two conical valves, stipe at least as long as the capsule
Flora: Intermountain Flora Volume 2B, page 169
Threats: livestock trampling


3
3
3. Cleomella plocasperma
½

Cleomella plocasperma locations in the JRA.

Scientific Name: *Cymopterus acaulis* (Pursh) Raf. var. *greeleyorum* Grimes & Packard
Symbol: CYACG
Common Name: Greeley's wavewing
Family (Common Name): Apiaceae (Carrot Family)
Status: Idaho BLM Sensitive Type 3
Flowering Period: March to April; fruiting into early June
Habitat: occupies sites which undergo a lot of soil movement; the sand is loosely held together, while the deposits that have weathered clay shrink and swell greatly; known to occur on sandy loam or clay soils, brown and white volcanic ash
Associates: within *Artemisia tridentata wyomingensis*, desert shrub, and *Oryzopsis hymenoides* zones
Distribution: known along the northern boundary, JRA; Elmore and Owyhee cos., Idaho; Malheur Co., Oregon
Key Characteristics: restricted habitat; flowers and stamens yellow; leaves dark green, shiny, ultimate segments are larger than those of the typical variety
Flora: Intermountain Flora Volume 3a, page 392
Threats: include off highway vehicle use and livestock grazing; impacts from livestock may include direct mortality due to trampling and degradation of habitat

Cymopterus acaulis greeleyorum habitat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umbel at anthesis
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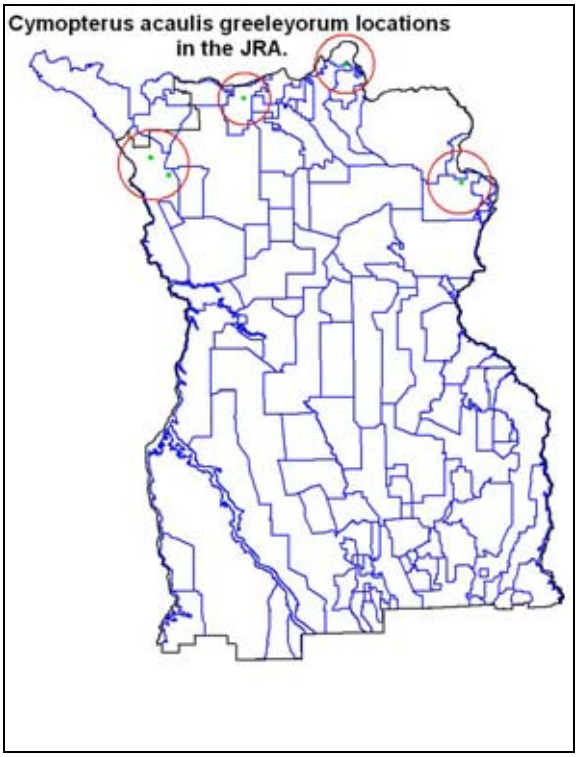
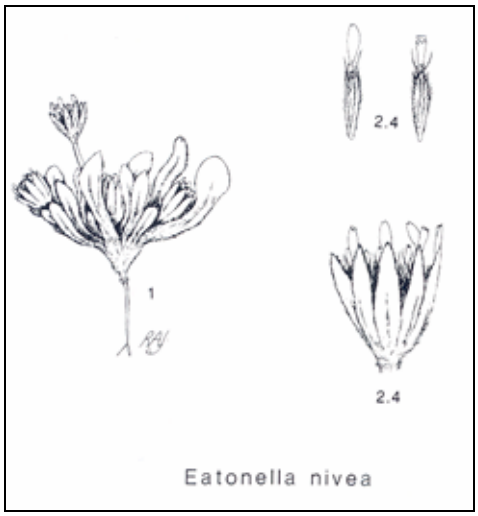
Cymopterus acaulis var. acaulis


Cymopterus acaulis greeleyorum locations
in the JRA.

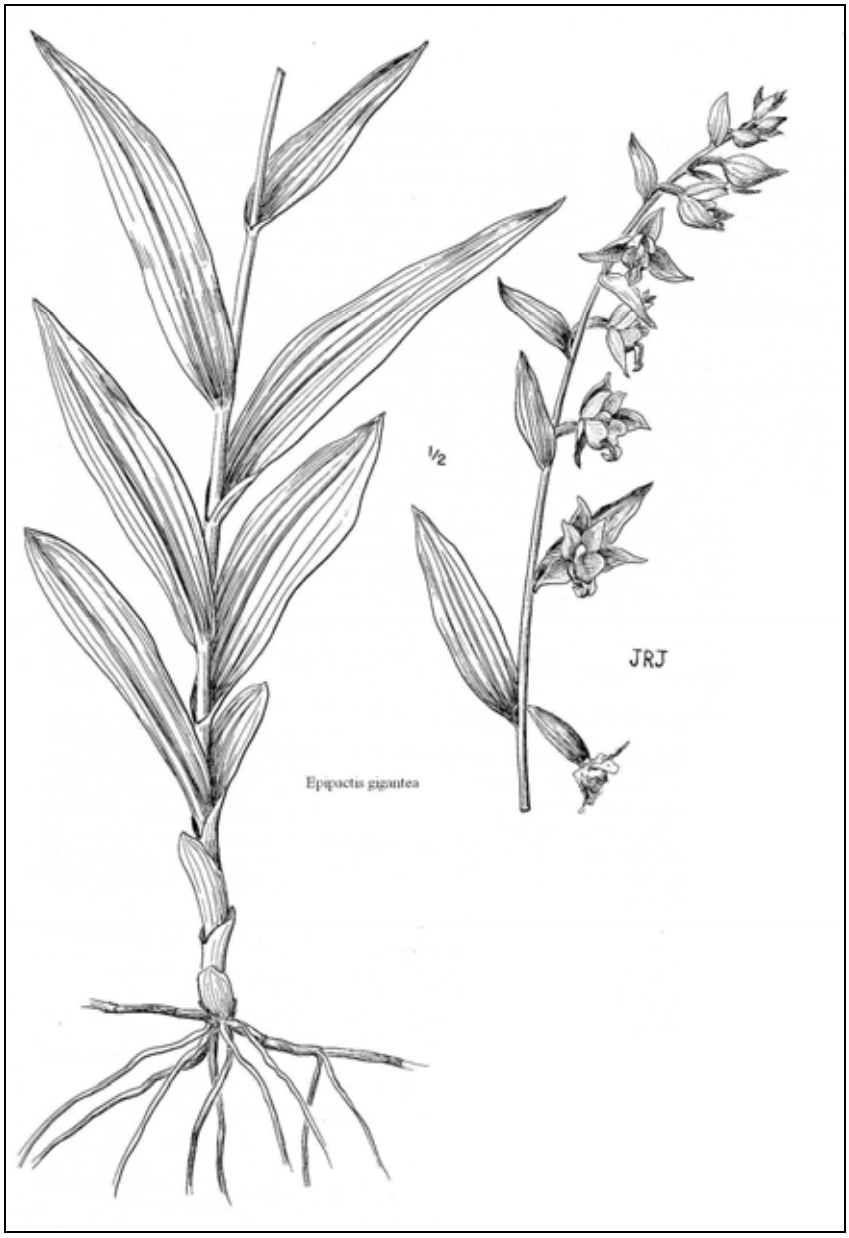
Scientific Name: *Eatonella nivea* (DC Eaton) A. Gray
Symbol: EANI
Common Name: White eatonella
Family (Common Name): Asteraceae (Sunflower Family)
Status: Idaho BLM Sensitive Type 4
Flowering Period: early April through June (early July)
Habitat: occurs on dry sandy or volcanic soils in salt desert shrub habitats on barren sites surrounded by sagebrush; at 763 to 1900 m elevations
Associates: *Artemisia tridentata tridentata*, *Purshia tridentata*, *Salvia dorrii*
Distribution: expected in the JRA; Lemhi, Custer, Elmore, and Owyhee cos., Idaho; the central Idaho populations are disjunct along the Salmon River; se Oregon, c and w Nevada, and Inyo Co., California
Key Characteristics: depressed (1-2 cm tall) white-woolly annual; flowers white to pinkish or purplish; plant woolly at base; branches from the base forming small tufts; leaves numerous, entire, spathulate to ovate
Flora: Intermountain Flora Volume 5, page 110; Flora of the Pacific Northwest, page 510
Threats: include off road vehicles, grazing impacts, and spring livestock trampling



***Eatonella nivea* habitat**

Scientific Name: *Epipactis gigantea* Dougl. Ex Hook
Symbol: EPGI
Common Name: Chatterbox orchid
Family (Common Name): Orchidaceae (Orchid Family)
Status: Idaho BLM Sensitive Type 3
Flowering Period: April to early August
Habitat: occurs in calcareous hot or cold springs from 800-2000 m elevations
Associates: *Mimulus, Eleocharis*, and *Carex*
Distribution: known in the Bruneau River Canyon and may occur in the Bruneau Hill area, JRA; known from Adams, Boise, Bonner, Boundary, Camas, Clark, Custer, Elmore, Gooding, Idaho, Jerome, Lemhi, Madison, Owyhee, Twin Falls, and Valley cos., Idaho; British Columbia to Baja California, and most of w NA to the Rocky Mountains and South Dakota to n Sonora, Mexico
Key Characteristics: rhizomatous orchid with one to many stems; flowers brownish-purple; plants up to 3 feet tall; leaves numerous, clasping, elliptical, broad
Flora: Intermountain Flora Volume 6, page 549; Flora of the Pacific Northwest, page 701
Threats: include development and human disturbance of hot or cold springs and seeps, and livestock grazing and trampling

Epipactis gigantea habitat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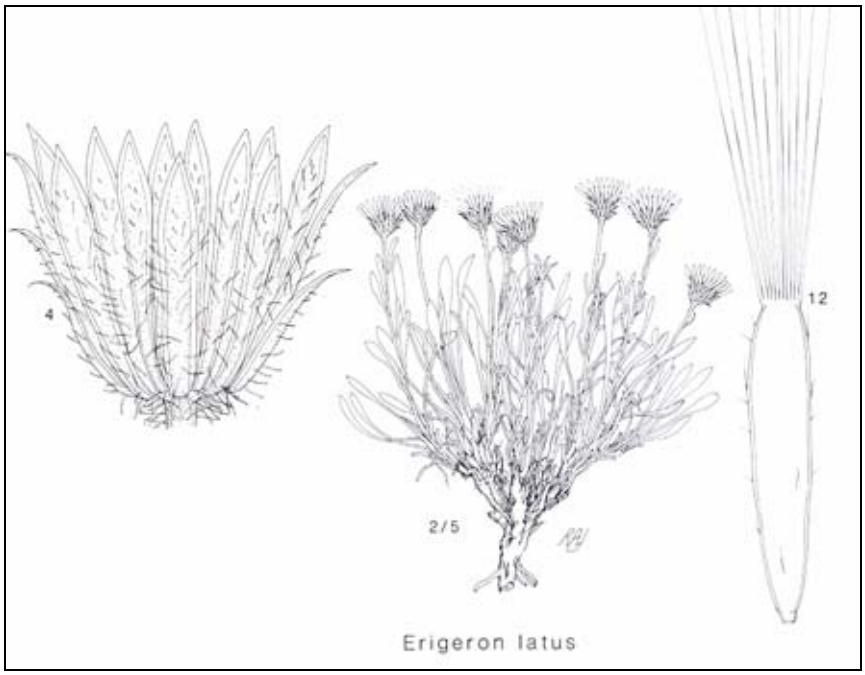
Epipactis gigantea

Epipactis gigantea locations
in the JRA.

Scientific Name: *Erigeron latus* (A Nelson & JF Macbride) Cronquist
Symbol: ERLA14
Common Name: Broadleaf fleabane
Family (Common Name): Asteraceae (Sunflower Family)
Status: Nevada BLM Sensitive
Flowering Period: June through July
Habitat: occurs on rocky soil derived from lava on shallow, relatively barren, ephemerally saturated, otherwise dry, gravelly to sandy soils or bedrock on flats and slopes of volcanic scablands or benches, mostly rhyolitic or basaltic in composition
Associates: in the sagebrush steppe and juniper zones with *Artemisia arbuscula* and *A. tridentata*; *Haplopappus acaulis*, *Eriogonum*, and sometimes *Juniperus*
Distribution: known in the Three Creek area, JRA; Elko Co., Nevada; Cassia, Owyhee, and Twin Falls cos., Idaho.
Key Characteristics: flowers pink to purple, heads solitary; plant is 3-8 cm tall; leaves mostly basal, spathulate; herbage with glandular hairs
Flora: Intermountain Flora Volume 5, page 332
Threats: livestock grazing does not directly threaten this species, but habitat destruction by related roads and water developments has occurred to a small degree, slat block placement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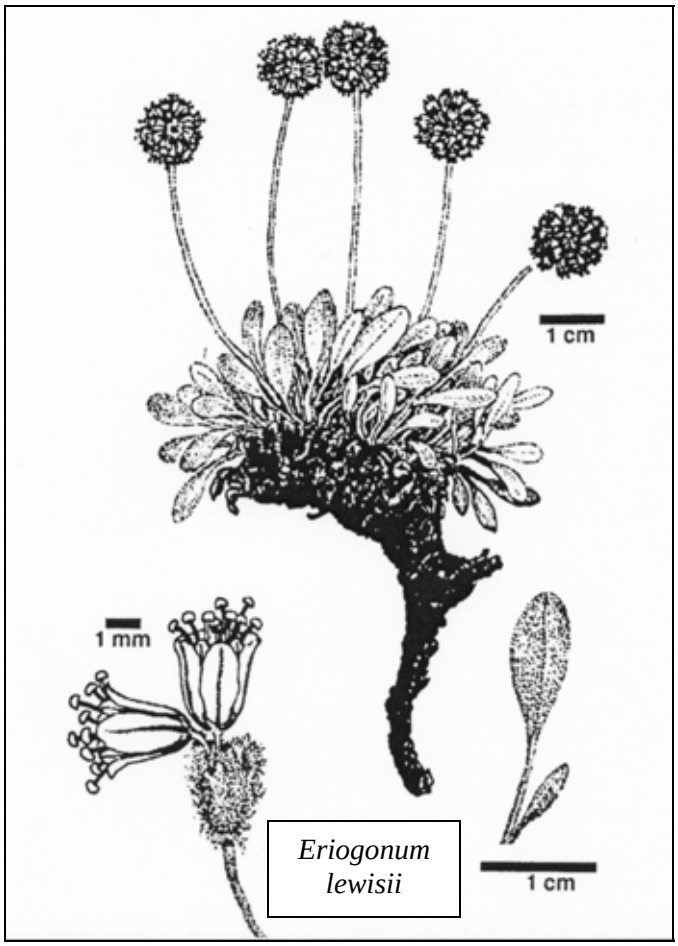
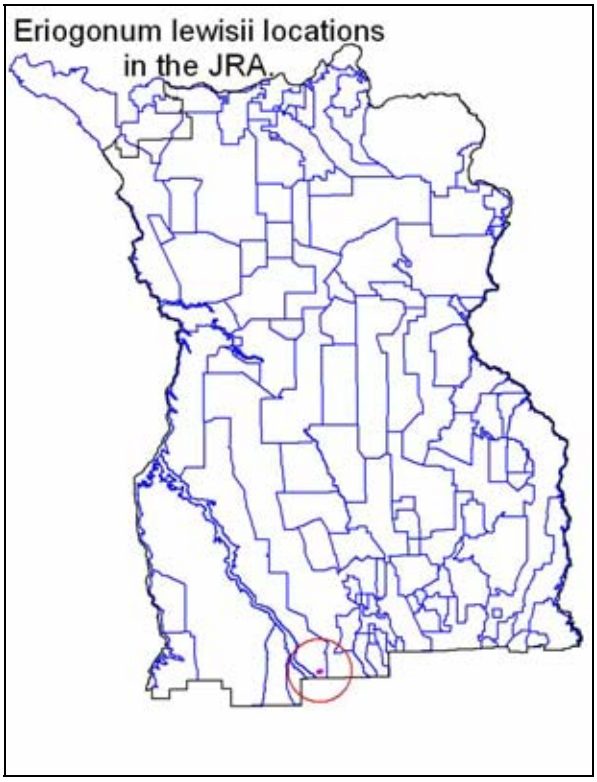
Erigeron latus

Erigeron latus locations
in the JRA.

Scientific Name: *Eriogonum lewisii* Reveal
Symbol: ERLE13
Common Name: Lewis buckwheat
Family (Common Name): Polygonaceae (Buckwheat Family)
Status: Nevada BLM Sensitive
Flowering Period: June through September (October); most frequent survey months are July-October
Habitat: occurs on dry, exposed, relatively barren and undisturbed, rocky residual soils on convex ridge-line knolls and crests underlain by siliceous carbonate rocks, on flat to moderately steep slopes of all aspects, but with the densest stands on southerly aspects; at elevations from 1972 to 2963 m
Associates: co-dominating with *Artemisia arbuscula* and *Sitanion hystrix*; *Chrysothamnus viscidiflorus*, *Cryptantha interrupta*, *Chaenactis douglasii*, and *Stanleya viridiflora*.
Distribution: reported in extreme s-c, JRA; n-c Elko and n Eureka cos., Nevada; expected in extreme s Idaho and possibly in nw Utah
Key Characteristics: perennial forming compact mats; smooth hairless yellowish flowers 2-3 mm long forming a tight ball at the tip of each leafless, unbranched stem, the 6 flower parts about equal in size and shape; sparse cobwebby hairs on the stem and on the 3-6 thick, rigid flower cups; greenish-gray, entire, broadly elliptic to rounded leaf blades less than 15 mm long and 8 mm wide with flat or slightly curled edges; similar to *Eriogonum desertorum*, from which it is distinguished mainly by smaller leaves, and somewhat smaller flowering stems;
Flora: NA
Threats: include mineral exploration and development, development of roads and electronic sites, off-road vehicle travel, livestock, grazing and related development projects, fire and fire suppression activities



Eriogonum lewisii



Scientific Name: *Eriogonum ochrocephalum* S. Wats. var. *calcareum* (Stokes) Peck
Symbol: EROCC
Common Name: Calcareous buckwheat
Family (Common Name): Polygonaceae (Buckwheat Family)
Status: Idaho BLM Sensitive Type 3
Flowering Period: May through August (September)
Habitat: occurs on rolling, sparsely vegetated, clay hills at 640 to 1000 m elevations
Associates: *Atriplex canescens, A. confertifolia, Grayia spinosa, Stanleya pinnata;* sometimes occurs with *Penstemon janishiae*
Distribution: known in n JRA; Elmore, Owyhee, Payette, Twin Falls, and s Washington cos., Idaho; Baker and Malheur cos., Oregon
Key Characteristics: plants mat forming; leaf blades lanceolate to elliptic or oblong (1-3.5 x 0.5-1.5 cm); scapes 1-3.5 dm, glabrous or slightly floccose; involucres turbinate (3-4.5(6) x 2.5-3(4) mm), tube sparsely floccose to glabrous; flowers 1.5-3 mm, glabrous; achenes 1.5-3 mm
Flora: None
Threats: include off highway vehicle use, livestock trampling

Eriogonum ochrocephalum calcareum habitat

E. ochrocephalum
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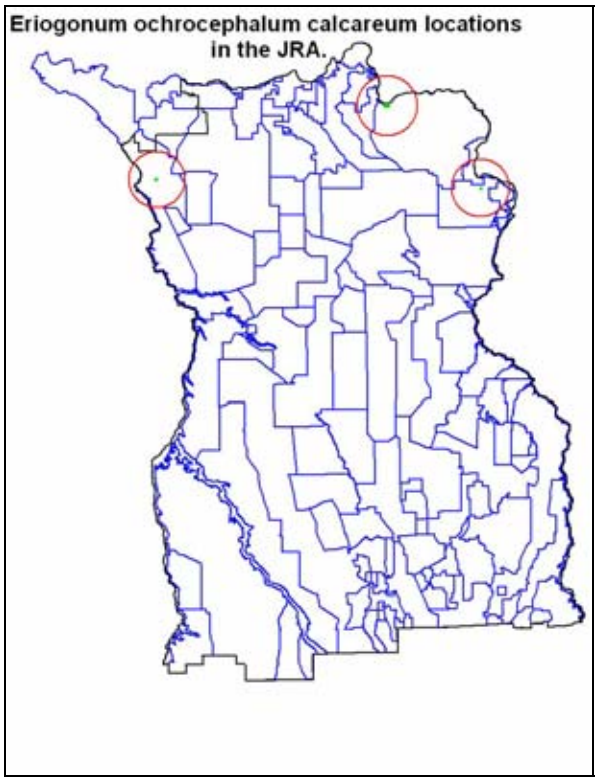
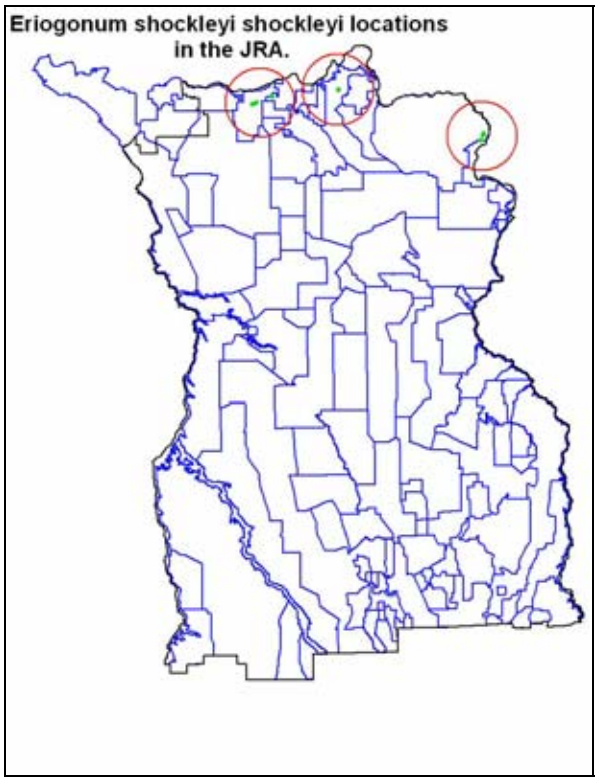

Eriogonum ochrocephalum calcareum locations
in the JRA.

Scientific Name: *Eriogonum shockleyi* S. Wats. var. *packardiae* Reveal
Symbol: ERSHP
Common Name: Packard's cowpie buckwheat
Family (Common Name): Polygonaceae (Buckwheat Family)
Status: Idaho BLM Sensitive Type 3
Flowering Period: May through July
Habitat: Oolitic limestone outcrops, sandy loess over basalt, and cobbly desert pavement over deep sandy-loam; in shadscale, mixed desert shrub and sagebrush communities; elevations from 760-1300 m; this species is endemic to sw Idaho along the Snake River and a few tributaries in Ada and Owyhee cos.
Associates: *Tetradymia glabrata, Eurotia lanata, Atriplex confertifolia, Orysopsis hymenoides, Stipa comata*, and *Langloisia*
Distribution: known in the Bruneau Arm Allotment; Elmore, Gooding, Owyhee, and Twin Falls cos., Idaho; Inyo Co., California across c Nevada to w Utah
Key Characteristics: matted, compact perennial; flowers creamy white; leaves small with whitish cast; flowering stems at anthesis <10 mm long (mostly < 5mm); flowering stems short, hardly visible, the inflorescences sitting directly on or within the cushion; leaf blades elliptic, short and narrow, 2-5 mm long x 1-3 mm wide; petioles <4 mm long
Flora: None
Threats: mining of oolitic limestone; off-road vehicle use, wildfires, fire line construction and other fire suppression activities, livestock trailing, and range development projects

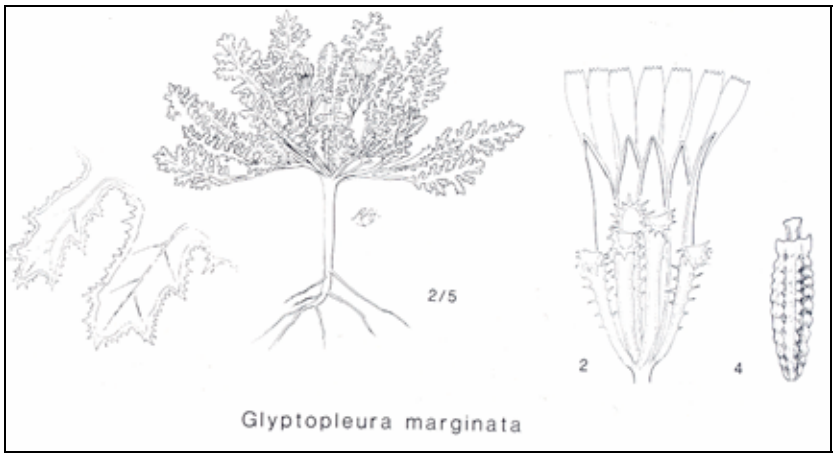
Eriogonum shockleyi packardii locations
in the JRA.

Scientific Name: *Eriogonum shockleyi* S. Wats. var. *shockleyi*
Symbol: ERSHS, ERSHP
Common Name: Matted cowpie buckwheat
Family (Common Name): Polygonaceae (Buckwheat Family)
Status: Idaho BLM Sensitive Type 3
Flowering Period: May through July
Habitat: occurs on sparsely vegetated sandy-loams, cobbly desert pavement, and gravelly calcrete on lacustrine sediments; in shadscale, mixed desert shrub and sagebrush communities; elevations from 760-1300 m; Idaho is the northern limit for this species and populations here are considered disjunct from the Nevada population
Associates: *Artemisia tridentata, Atriplex canescens, Chrysothamnus viscidiflorus, Phlox hoodii, Orysopsis hymenoides*
Distribution: known in n JRA; Elmore, Gooding, Owyhee, and Twin Falls cos., Idaho; Inyo Co., California across c Nevada to w Utah;
Key Characteristics: matted, compact perennial; flowers creamy white; leaves small with whitish cast; flowering stems at anthesis >10 mm long; flowering stems obviously extending above the cushion; leaf blades obovate, oblanceolate, elliptic, or spathulate, 3-10 mm long x 2-5 mm wide; petioles >4 mm long; matted, compact perennial; flowers creamy white; leaves small with whitish cast
Flora: None
Threats: include off-road vehicle use, wildfires, fire line construction, livestock trailing, range projects, fire breaks, and mining of oolitic limestone

Eriogonum shockleyi shockleyi habitat



Scientific Name: *Glyptopluera marginata* DC Eaton in King
Symbol: GLMA2
Common Name: White-margined wax plant
Family (Common Name): Asteraceae (Sunflower Family)
Status: Idaho BLM Sensitive Type 4
Flowering Period: May through June
Habitat: occurs on dry, sandy-gravelly or loose ash soils; at elevations from 800-1200 m
Associates: in *Atriplex canescens, Sarcobatus, Chrysothamnus, Grayia spinosa, Eurotia lanata*, and sagebrush communities
Distribution: known in nw and se JRA; Elmore, Owyhee, and Twin Falls cos., Idaho; se Oregon, s through w Nevada to San Bernardino Co. and the White Mtns of California, e through Elko and White Pine cos., Nevada to scattered counties in Utah
Key Characteristics: dwarf, tufted winter annual with milky juice; flowers white or pale yellow, drying to pink; leaves crowded, pinnately lobed or toothed with a white, waxy margin
Flora: Intermountain Flora Volume 5, page 442
Threats: include off-road vehicles, increased agricultural development, range development projects, and heavy recreational use in the Hot Springs area



Glyptopluera marginata habitat
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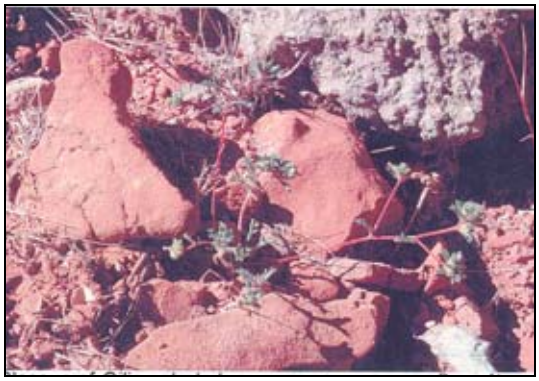
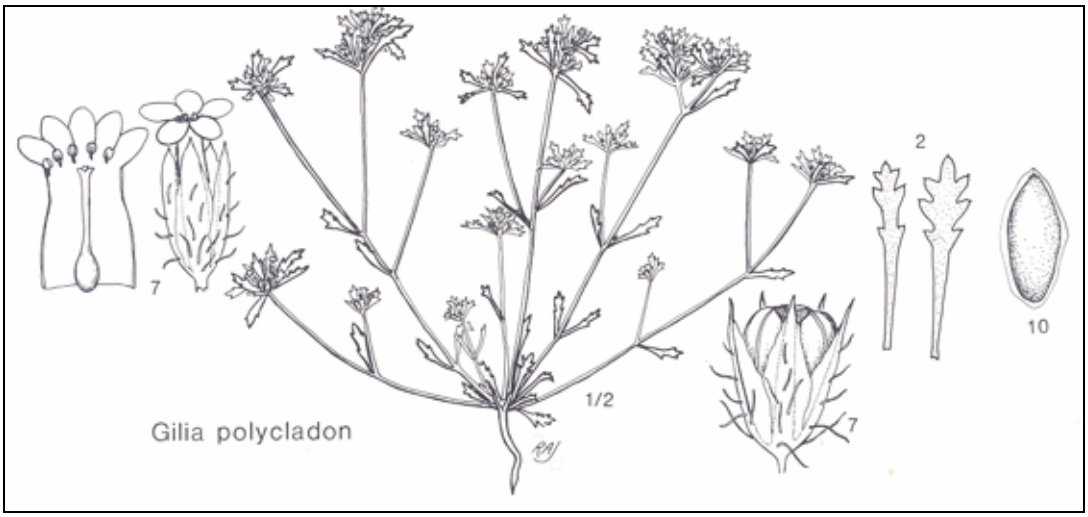
Glyptopleura marginata locations
in the JRA.

Scientific Name: *Ipomopsis polycladon* (Torr.) V. Grant; syn. *Gilia polycladon*
Symbol: IPPO2
Common Name: Spreading gilia
Family (Common Name): Polemoniaceae (Phlox Family)
Status: Idaho BLM Sensitive Type 3
Flowering Period: April through June
Habitat: occurs in dry, open areas on sandy to silty soils; desert shrub communities of shadscale, horsebrush, and sagebrush; elevations from 800 to 1500 m
Associates: *Atriplex confertifolia, Malacothrix*
Distribution: known in the Bruneau Hill area, JRA; Butte, Elmore, Owyhee, and Power cos., Idaho; California, Nevada, Utah, and Colorado, s to Texas, Arizona, and n Mexico
Key Characteristics: easily identified by its prostrate, rigid, subnaked, divaricate branches and terminal, leafy-bracted flower-clusters
Flora: Intermountain Flora Volume 2B, page 262
Threats: no threats have been identified for this species



Ipomopsis polycladon habitat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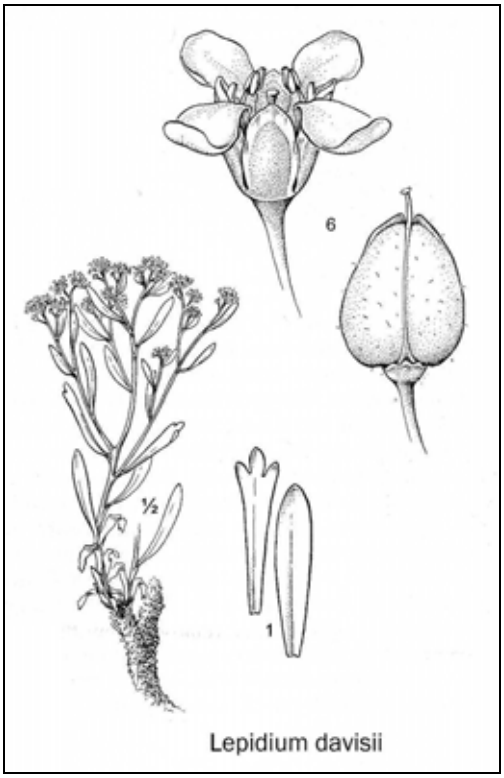
Gilia polycladon

Ipomopsis polycladon locations
in the JRA.

Scientific Name: *Lepidium davisii* Rollins
Symbol: LEDA2
Common Name: Davis peppergrass
Family (Common Name): Brassicaceae (Mustard Family)
Status: Idaho BLM Sensitive Type 3; Nevada BLM Sensitive
Flowering Period: May through June, fruiting July-August
Habitat: barren, internally drained, vernally wet with standing water, hard-bottomed playas between 800 and 1600 m elevations
Associates: barren areas within the big sagebrush-shadscale vegetation zone, may have a few scattered shadscale or silver sage growing in playas
Distribution: known in the 71 Desert, Diamond A, and Winter Camp areas, JRA; Ada, Elmore, Owyhee, and Twin Falls counties, Idaho; Malheur Co, Oregon and n Elko Co, Nevada
Key Characteristics: white, 4-petaled flowers; leaves somewhat fleshy, entire or with 1-3 apical teeth; plant can become quite "woody"; only found in playas; very numerous stems from a much-branched caudex
Flora: Intermountain Flora Volume 3B, page 262
Threats: include direct disturbance and habitat alteration from livestock use, stock pond development in playas 9which is the most critical threat), OHV use, salt block placement, and increased erosion into playas from degradation of the surrounding habitat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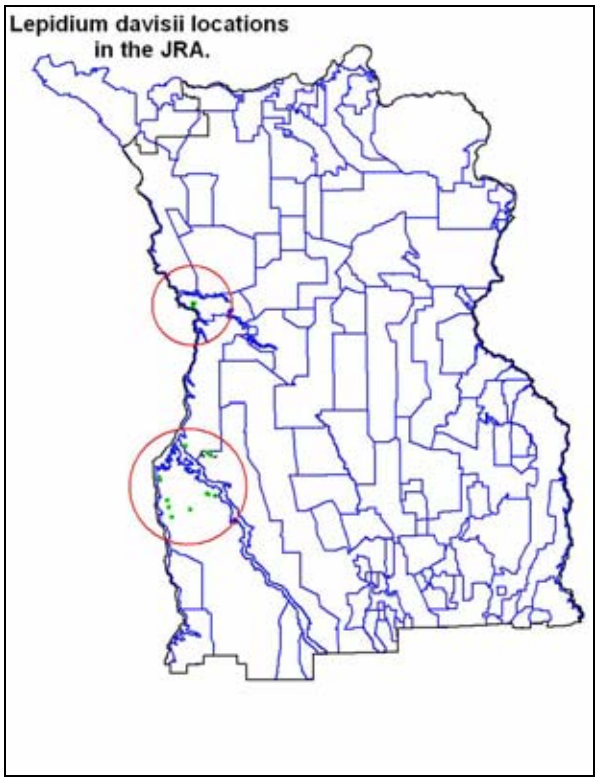
Lepidium davisii


Lepidium davisii locations
in the JRA.

Scientific Name: *Lepidium papilliferum* (Hends.) A. Nels. & Macbr.
Symbol: LEPA17
Common Name: Slickspot peppergrass
Family (Common Name): Brassicaceae (Mustard Family)
Status: Idaho BLM Sensitive Type 1; Proposed Endangered
Flowering Period: May through June (July)
Habitat: bare slickspot soils within Wyoming sagebrush habitat at 400-1600m
Associates: typically in barren slickspots, may have perennials or exotic annuals present
Distribution: known in the Inside Desert, Juniper Draw, Juniper Butte, Juniper Ranch, and Poison Butte Allotments, historic in the Crawfish Allotment, may occur in suitable habitat throughout the JRA; Ada, Canyon, Elmore, Gem, Owyhee, and Payette cos, Idaho
Key Characteristics: flowers white, 4 petals; leaves pinnate, densely papillose-puberulent, the hairs appearing somewhat flattened; stamen stalks bearded; annual to biennial species, usually forms rounded clumps to 4 dm and the ovate to ovate-elliptic 2.5-3 mm long glabrous silicles have a very narrowly winged up-turned margin
Flora: Intermountain Flora Volume 2B, page 259; Cruciferae of North America
Threats: include degradation of slickspots and surrounding area habitat, from livestock trampling, fire, and weed invasion

Lepidium papilliferum habitat

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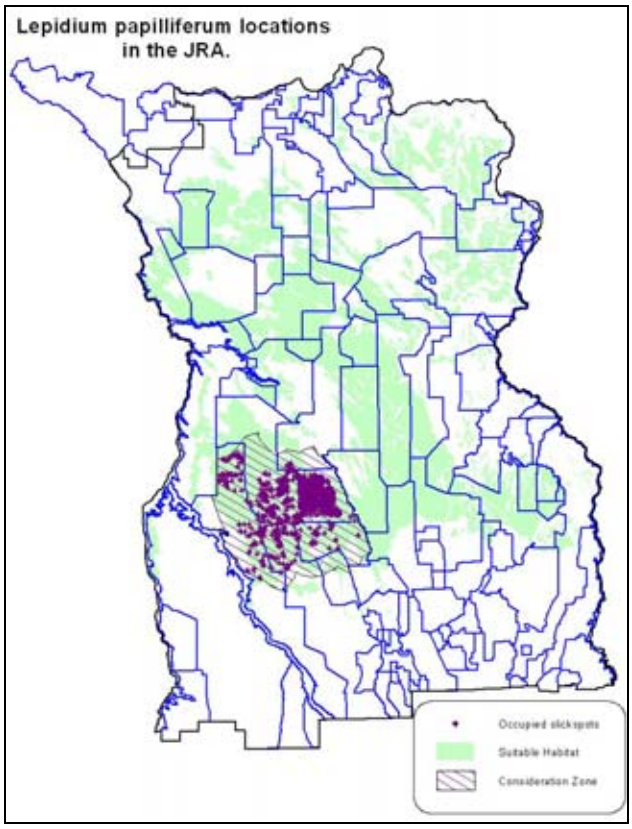
Lepidium papilliferum

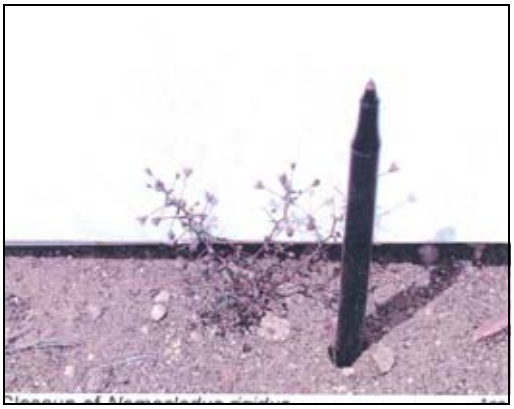

Lepidium papilliferum locations
in the JRA.
Occupied sitk spots
Suitable Habitat
Consideration Zone

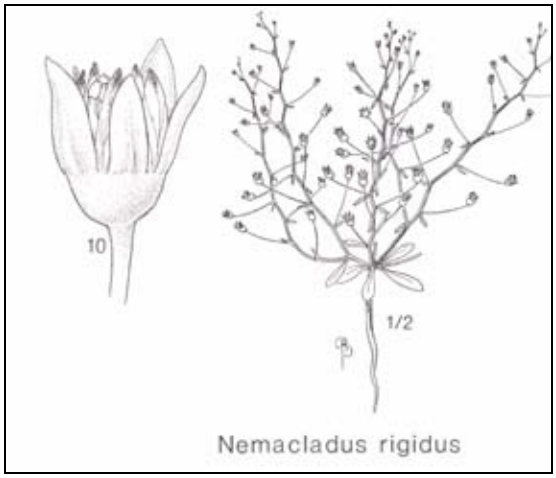
Scientific Name: *Leptodactylon glabrum* Patterson & Yoder-Williams
Symbol: LEGL6
Common Name: Bruneau River prickly phlox
Family (Common Name): Polemoniaceae (Phlox Family)
Status: Idaho BLM Sensitive Type 3; Nevada BLM Sensitive
Flowering Period: April through July
Habitat: vertical or under-hanging rhyolitic canyon walls, rock ledges and cliffs at 864-1444 m elevations
Associates: sparsely vegetated rock walls
Distribution: known in the Bruneau River Canyon, JRA; restricted to the Bruneau and Jarbidge Rivers and their tributaries in Owyhee Co, Idaho and Humboldt Co, Nevada
Key Characteristics: white to cream colored flowers; matted growth form that can be very large; prickly, filiform-linear leaves (only 0.5 mm wide); restricted habitat
Flora: None
Threats: decline in pollinators and damming the river

***Leptodactylon glabrum* habitat**

Leptodactylon glabrum locations
in the JRA.

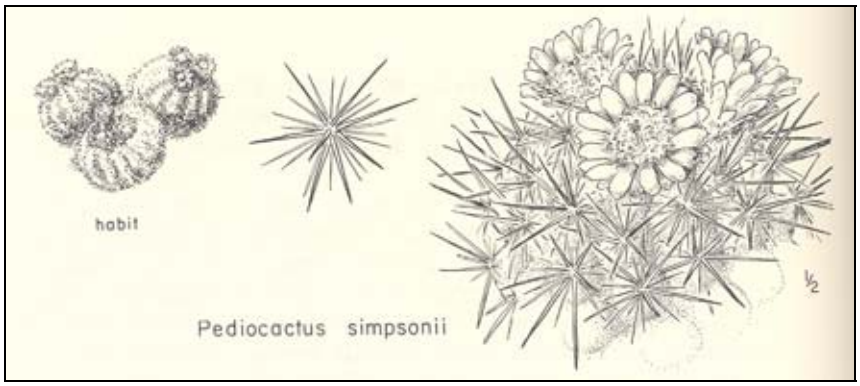
Scientific Name: *Nemacladus rigidus* Curran
Symbol: NERI
Common Name: Rigid threadbush
Family (Common Name): Campanulaceae (Bellflower Family)
Status: Idaho BLM Sensitive Type 4
Flowering Period: May through June (July)
Habitat: occurs on loose, sandy, cindery or ashy outcrops, cracks in basalt, or in dried mud at elevations from 800-1200 m
Associates: known from the shadscale-sagebrush zone
Distribution: known in the Bruneau Hill area, JRA; Owyhee Co, Idaho; se Oregon, s to ne California to Inyo Co, e to n Nye Co, Nevada
Key Characteristics: compact annual typically 1-3 cm tall; herbage dark-greenish-purple or brownish-purple; stems relatively stout, spreading, often multi-branched; flowers white, inconspicuous, sepals unequal, the larger ones (1.5) 2-4 mm long
Flora: Intermountain Flora Volume 4, page 526
Threats: include off-road vehicles and range development projects





Nemacladus rigida locations
in the JRA.

Scientific Name: *Pediocactus simpsonii* (Engelm.) Britt. & Brown var. *robustior* Coult.
Symbol: PESIR
Common Name: Simpson's hedgehog cactus
Family (Common Name): Cactaceae (Cactus Family)
Status: Idaho BLM Sensitive Type 4
Flowering Period: May through June
Habitat: small, barrel cactus found on gravelly soils in low sagebrush/Idaho fescue plant communities from 900-1800 m elevations
Associates: Artemisia arbuscula, Artemisia spinescens, Poa sandbergii communities; often associated with *Erigeron bloomeri*
Distribution: known in the 71 Desert and Taylor Pocket areas, and se, JRA; Cassia, Idaho, Nez Perce, Oneida, Owyhee, and Twin Falls cos, Idaho; s and e to Nevada, Wyoming, Utah, and Colorado
Key Characteristics: only barrel cactus in s Idaho; may be confused with species of *Coryphantha* which differs in having flowers borne at base of the grooved tubercles of the stem
Flora: Vascular Plants of the Pacific Northwest Volume 3, page 510; Flora of the Pacific Northwest, page 301
Threats: primarily collection of plants from the wild by private and commercial cactus collectors, but fire, habitat degradation, and trampling from livestock and OHV also impact this species


habit
Pediocactus simpsonii
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Pediocactus simpsonii locations
in the JRA.

Scientific Name: *Penstemon janishiae* N. Holmg.
Symbol: PEJA2
Common Name: Janish penstemon
Family (Common Name): Scrophulariaceae (Figwort Family)
Status: Idaho BLM Sensitive Type 3
Flowering Period: late April through mid-June
Habitat: occurs on clay soils derived from volcanic rock in sagebrush, juniper, and pinyon-juniper habitats at 800-1300 m elevations
Associates: *Astragalus purshii, A. toanus, Allium, Poa sandberg*; sometimes occurs with *Eriogonum ochrocephalum calcareum*
Distribution: known south of Pasadena Valley and Glenns Ferry, and in the Bruneau Hill area, JRA; s Idaho is the northeastern limit of this species' range
Key Characteristics: corolla pinkish-purple, 18-28 mm long, throat 7-12 mm wide when pressed, upper lip (6.5) 8-13 mm long; staminode conspicuously exerted and coiled apically
Flora: Intermountain Flora Volume 4, page 408
Threats: include off highway vehicle use, livestock and wild horse trampling and range improvement projects

Penstemon janishiae habitat
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Penstemon janishiae habitat
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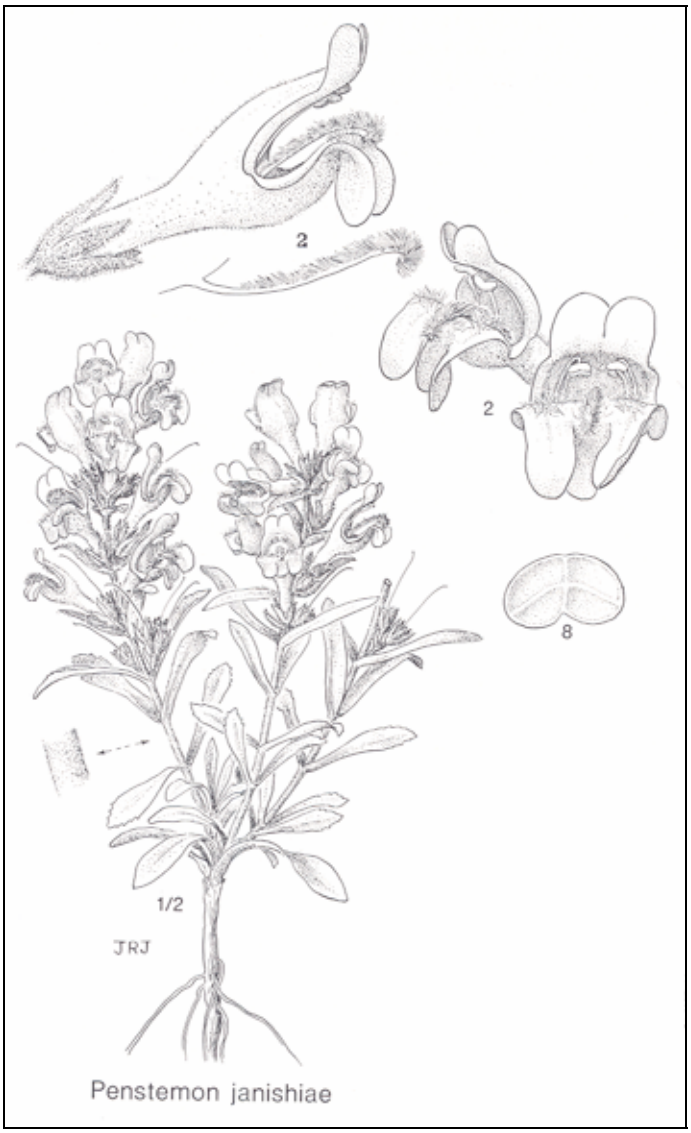
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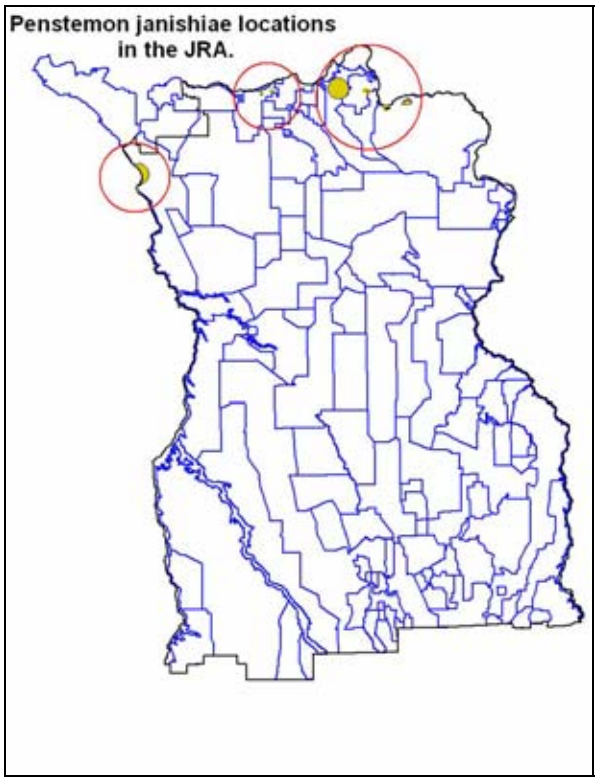
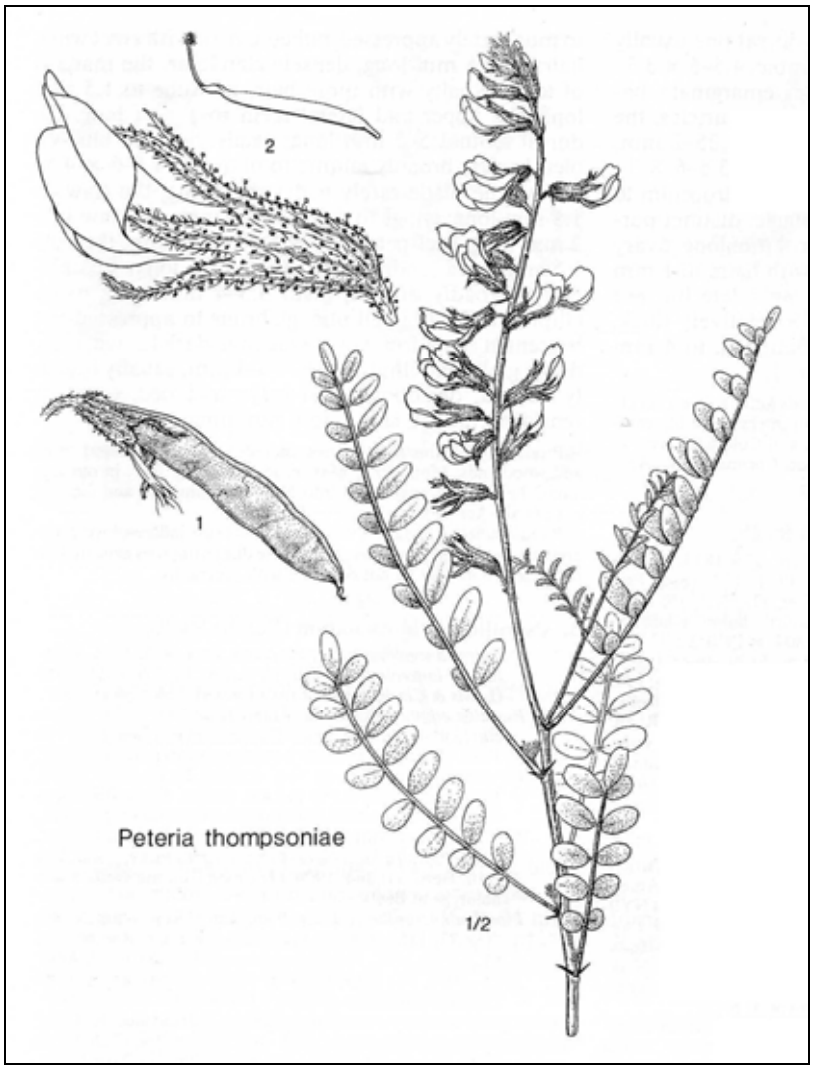
JRJ
Penstemon janishiae


Penstemon janishiae locations
in the JRA.

Scientific Name: *Peteria thompsoniae* S. Wats.
Symbol: PETH5
Common Name: Spine-noded milkvetch
Family (Common Name): Fabaceae (Pea Family)
Status: Idaho BLM Sensitive Type 4
Flowering Period: (late April) May through June
Habitat: occurs in disjunct populations on barren areas with thin cinder soils in the salt desert shrub and sagebrush plant communities at elevations in Idaho from 840-1300 m
Associates: *Grayia spinosa, Atriplex, Tetradymia glabrata, Salvia dorrii, Astragalus geyeri, A. nudisiliquus, Dalea ornata, Gilia*
Distribution: known in the Bruneau Hill area, JRA; Owyhee Co, Idaho, e Utah, w across s Utah and adjacent Arizona, s Nevada to ne Nye Co; Idaho populations in the lower Bruneau River area are isolated from the main populations but represent some of the largest populations of the species
Key Characteristics: superficially resembling an *Astragalus* but easily distinguished by small, sharp spines at leaf bases; flowers white to yellowish; pods straight, flattened, 5-6.5 cm when fully fertilized
Flora: Intermountain Flora Volume 3B, page 20
Threats: include off highway vehicle use and concentrated riparian grazing use of adjacent areas, slat block placement, development of irrigation canals, water diversions

Peteria thompsoniae habitat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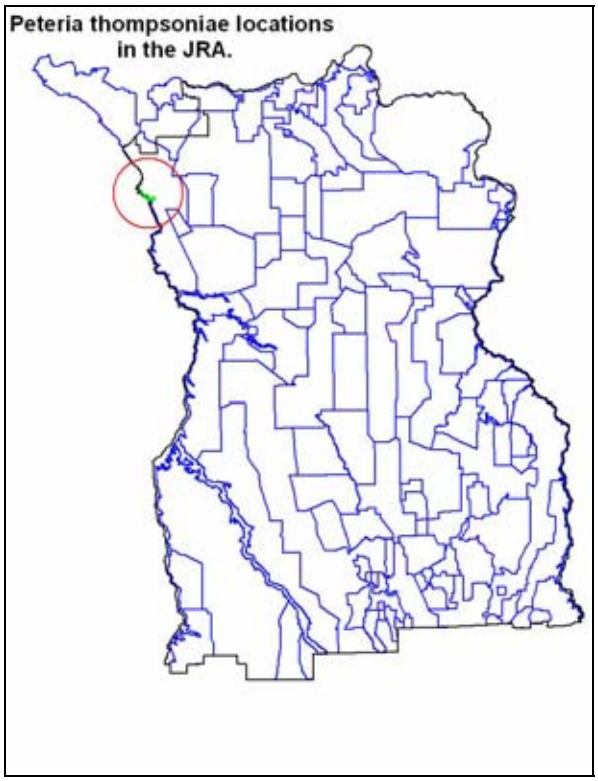
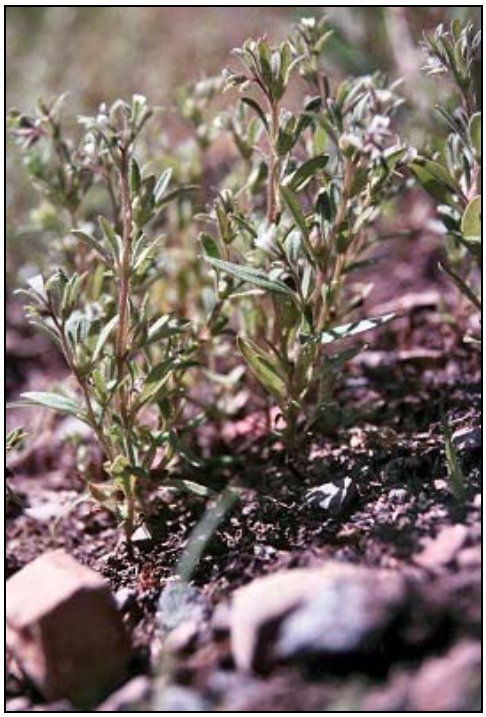
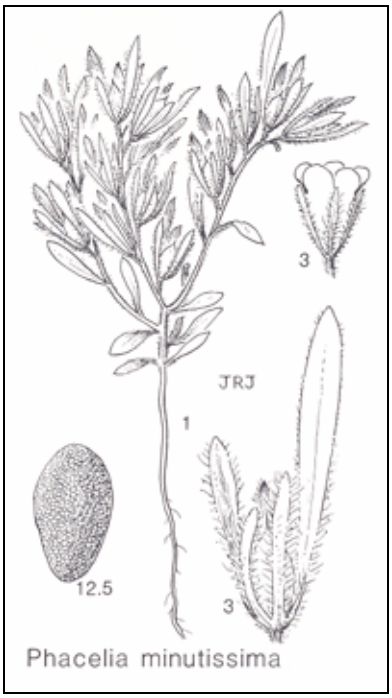
Peteria thompsoniae
1/2


Peteria thompsoniae locations
in the JRA.

Scientific Name: *Phacelia minutissima* L.F. Henderson
Symbol: PHMI7
Common Name: Least phacelia
Family (Common Name): Hydrophyllaceae (Waterleaf Family)
Status: Idaho BLM Sensitive Type 3; Nevada BLM Sensitive
Flowering Period: April through July
Habitat: occurs on vernally saturated, summer-drying, sparsely vegetation, partially shaded to fully exposed areas of bare soil and mud banks in meadows, at perimeters of *Veratrum californicum*, *Wyethia amplexicaulis*, and/or aspen stands, in sagebrush swales, along creek bed high-water lines, or around springs, in flat to gently sloping areas; the only annual *Phacelia* of moist habitats
Associates: *V. californicum, W. amplexicaulis, Populus tremuloides*
Distribution: known in the Diamond A area, JRA; Camas and Owyhee cos, Idaho; and disjunct localities in Elko Co, Nevada, Wallowa Mts., Oregon, and c Washington
Key Characteristics: unequal fruiting calyx lobes (one or more often foliaceous); mostly cauline leaves; terminal inflorescence; annual plants to 10 cm tall; flowers inconspicuous, lavender
Flora: Intermountain Flora Volume 4, page 164; Flora of the Pacific Northwest, page 382
Threats: mineral exploration and development, livestock trampling, water developments and diversions, competition with invasive weeds



Phacelia minutissima habitat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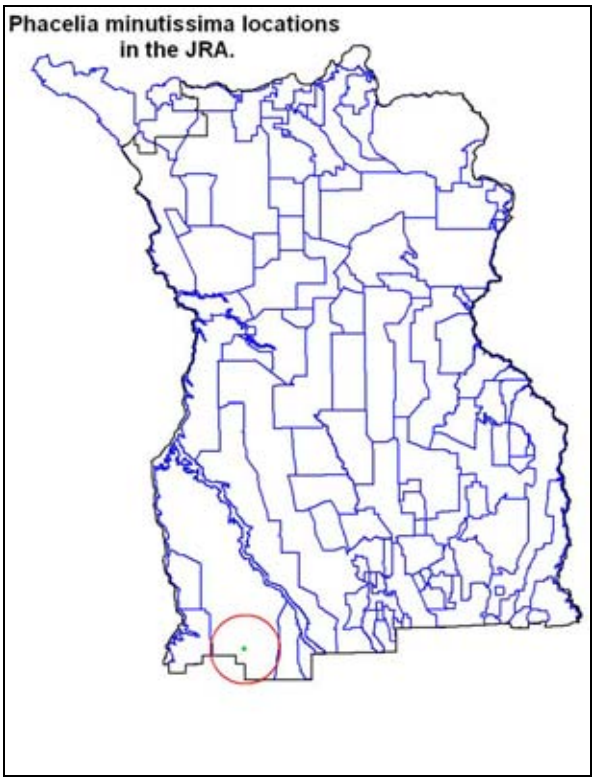
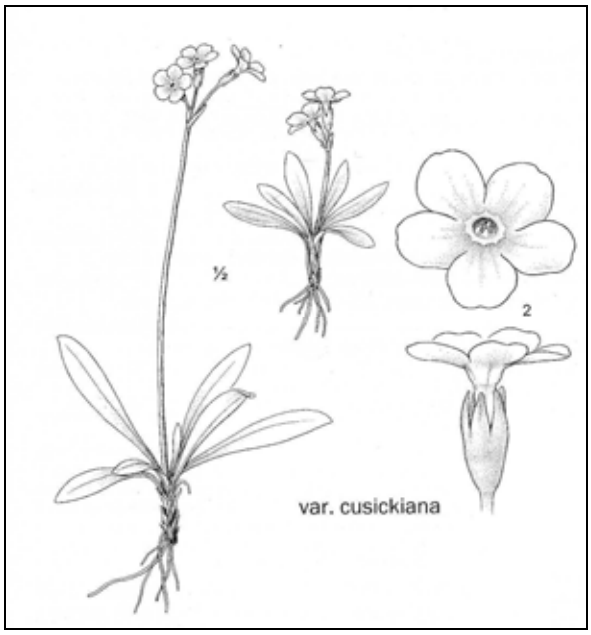
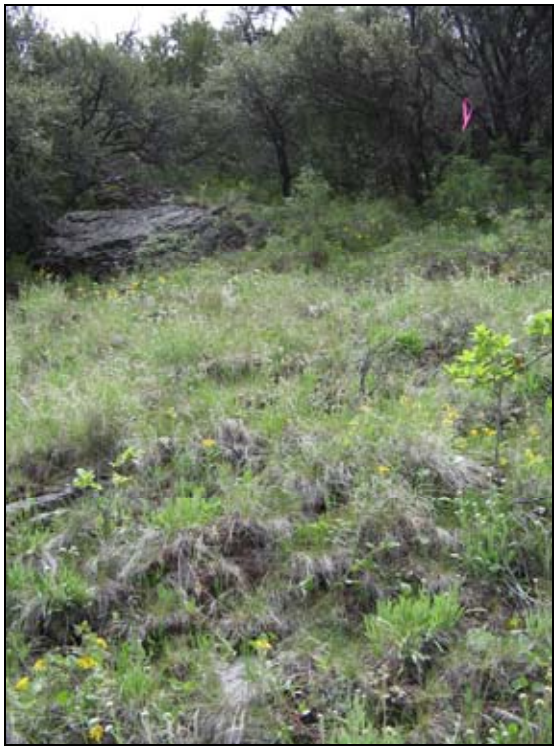
JRJ
1
12.5
3
Phacelia minutissima

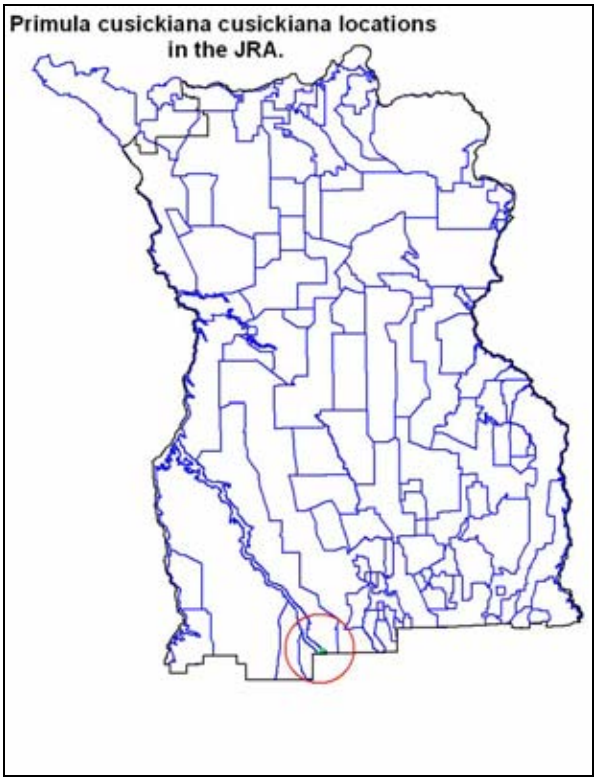

Phacelia minutissima locations
in the JRA.

Scientific Name: *Primula cusickiana* (Gray) Gray var. *cusickiana*
Symbol: PRCU2
Common Name: Cusick's primula
Family (Common Name): Primulaceae (Primrose Family)
Status: Idaho BLM Watch List; Nevada BLM Sensitive
Flowering Period: Late February to June
Habitat: occurs on loam or especially heavy clay soils associated with ephemerally wet seeps, springs, and drainage-ways, swales in sagebrush-grass communities in the foothills and plains at elevations of 750-1900m; in the JRA occurs in small, moist openings in mountain mahogany thickets on steep slopes
Associates: strongly associated with *Saxifraga occidentalis*, also *Agropyron spicatum*, *Mertensia*, moss, and lichen
Distribution: known on Cougar Point off the East Fork Jarbidge River, JRA; SW Idaho, NE Oregon, Elko Co, Nevada;
Key Characteristics: leaves mostly in flat rosettes, <10cm long; corolla bluish-violet to purplish with yellow "eye", fornices lacking in the throat, lobes about 4 mm long and <1.5 cm broad, corolla tube <1.5x as long as calyx; flowers 1-3 (6)
Flora: Intermountain Flora Volume 2B, page 458; Flora of the Pacific Northwest, page 355
Threats: include heavy grazing in spring, increasing housing developments, off-road vehicles, and juniper encroachment



Primula cusickiana cusickiana habitat





Scientific Name: *Teucrium canadense* L. var. *occidentale*
Symbol: TECAO
Common Name: American wood sage
Family (Common Name): Lamiaceae (Mint Family)
Status: Idaho BLM Sensitive Type 3
Flowering Period: April through August
Habitat: streambanks and moist bottom lands, 800-1200 m elevation
Associates:
Distribution: known along the Snake River, JRA; Ada, Canyon, Idaho, Owyhee, and Washington counties, ID; widespread in the US and adj. Canada; less common in the w states, in Utah, Cache and Utah counties; Mexico
Key Characteristics: terminal bracteate spikes or racemes (sometimes flowers are solitary in the axils of the upper leaves), calyx teeth lacking spinulose tips, exerted stames, ovary merely lobed (not cleft to the base), and the laterally attached nutlets
Flora: Intermountain Flora Volume 4, page 304; Flora of the Pacific Northwest, page 409
Threats: grazing, herbicides, agriculture, water diversions

Teucrium canadense occidentale

Teucrium canadense occidentale locations
in the JRA.

Scientific Name: *Texosporium sancti-jacobi* (Tuck.) Navd.
Symbol: TESA
Common Name: Woven-spore lichen
Family (Common Name): Caliciaceae (Soot Lichen Family)
Status: Idaho BLM Sensitive Type 2
Flowering Period: Abundantly fertile all year
Habitat: on well decomposed humus, flat or north-facing slopes on especially old clumps of *Poa sandburgii*, in *Artemisia tridentata wyomingensis* / *Stipa thurberiana* - *Agropyron spicatum* sites; heavy clay soils, open areas with high intensity light; low elevation, dry sites from 880-1000m elevation
Associates: old growth *A. tridentata wyomingensis*, *P. sandburgii*, *S. thurberiana*, *A. spicatum*, *Sitanion hystrix*; also *Chrysothamnus nauseosus consimilis*
Distribution: expected in the JRA; Ada and Elmore cos, Idaho; Los Angeles, Santa Barbara, Sand Diego, and San Benito cos, CA; Benton and Klickitat cos, WA; Jefferson and Wasco counties, Oregon
Key Characteristics: can be distinguished by its powdery (sooty), olive green apothecia and its gray colored thallus; green fruiting bodies with white rims, grows adnate to the soil or over moss
Flora: Field Key to the Soil Lichens of Central and Eastern Oregon (McCune and Rosentreter 2001)
Threats: fire, livestock grazing, human disturbance, land development, air pollution

Texosporium sancti-jacobi habitat