IDAHO BLM

TECHNICAL BULLETIN

AN ILLUSTRATED GUIDE TO THE

SENSITIVE PLANTS OF BOISE DISTRICT

BUREAU OF LAND MANAGEMENT, 1988

by

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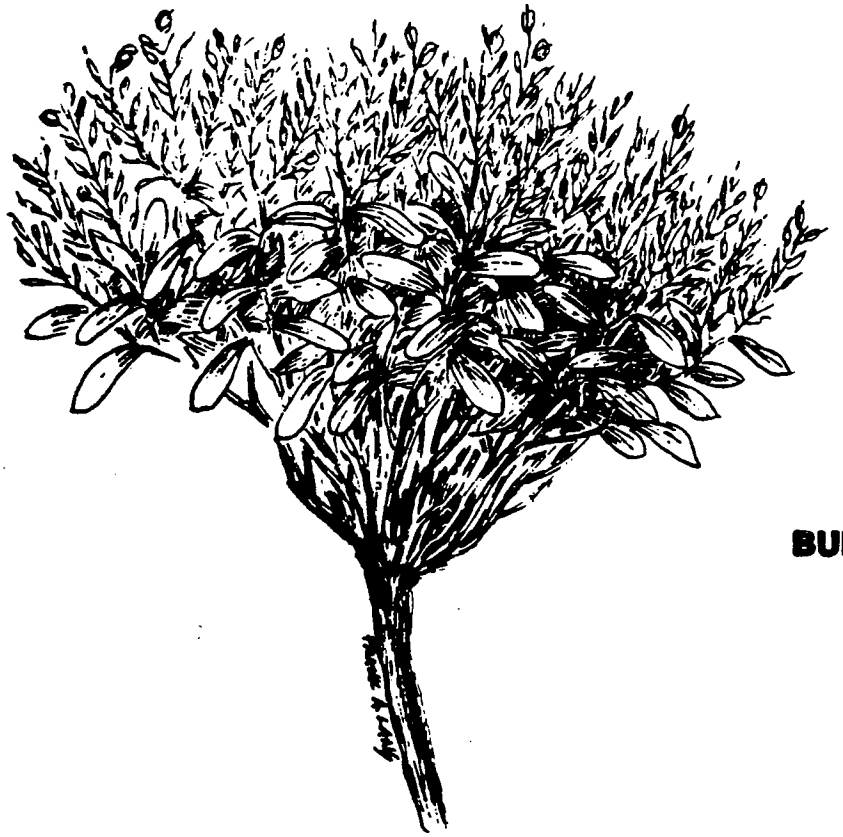

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BUREAU OF LAND MANAGEMENT
IDAHO STATE OFFICE
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INTRODUCTION

This collection of information includes all known sensitive plant species in the Boise District. It was compiled for use as a reference and for field personnel, containing line drawings when available.

The plants are arranged in alphabetical order by genera. An index of common names has been included for those unfamiliar with Latin names. Each plant has been placed in one or sometimes two soil and vegetation type categories. This information is also available within the narrative descriptions, but the categories will provide a more rapid way to reference habitat information.

Plant nomenclature follows that of Hitchcock and Cronquist in their Flora of the Pacific Northwest (1973). Illustrations are from various sources, including Flora of the Pacific Northwest, Intermountain Flora, Threatened and Endangered Plants of Nevada, and Threatened and Endangered Vascular Plants of Oregon.

LIST OF SENSITIVE PLANTS IN THE BOISE DISTRICT

Allium aaseae (Aase's Onion)
Artemisia packardiae (Packard's Sagebrush)
Astragalus atratus var. inseptus (Mourning Milk-vetch)
Astragalus atratus var. owyheensis (Owyhee Mourning Milk-vetch)
Astragalus camptopus (Murphy Milk-vetch)
Astragalus mulfordiae (Mulford's Milk-vetch)
Astragalus sterilis (Barren Milk-vetch)
Astragalus vallaris (Snake Canyon Milk-vetch)
Astragalus yoder-williamsii (Osgood Mountains Milk-vetch)
Camassia cusickii (Cusick's Camas)
Chaenactis cusickii (Cusick's False Yarrow)
Cryptantha propria (Malheur Cryptantha)
Cymopterus acaulis var. greeleyorum (Greeley's Parsley)
Dimersia howellii (Dimersia)
Eatonella nivea (White Eatonella)
Epipactis gigantea (Giant Helleborine)
Erigeron latus (Broad Fleabane)
Eriogonum salicornoides (Annual Salt Eriogonum)
Eriogonum shockleyi var. shockleyi (Matted Cowpie Buckwheat)
Glyptopleura marginata (White Margined Wax Plant)
Gymnosteris nudicaulis (Large Flowered Gymnosteris)
Gymnosteris parvula (Small Flowered Gymnosteris)
Hackelia ophiobia (Rattlesnake Stickseed)
Haplopappus radiatus (Snake River Goldenweed)
Lepidium davisii (Davis Peppergrass)
Leptodactylon glabrum (Bruneau River Prickly Phlox)
Lupinus uncialis (Inch High Lupine)
Malacothrix glabrata (Desert Dandelion)
Malacothrix torreyi (Torrey's Malacothrix)
Mentzelia mollis (Smooth Stickleaf)
Mentzelia torreyi var acerosa (Torrey's Blazing Star)
Nemacladus rigidus (Rigid Threadstem)
Pediocactus simpsonii var. robustior (Simpson's Hedgehog Cactus)
Peraphyllum ramosissium (Squaw Apple)
Peteria thompsonae (Spine-Noded Milk-vetch)
Phacelia lutea var. calva (Yellow Phacelia)
Phacelia minutissima (Least Phacelia)
Primula wilcoxiana (Wilcox's Primrose)
Stipa webberi (Webber's Needlegrass)
Stylocline filaginea (Hooked Stylocline)
Texosporium sancti-jacobi (Texas Spored Lichen)
Trifolium owyheense (Owyhee Clover)

ALPHABETICAL LISTING OF COMMON NAMES

Aase's Onion (Allium aaseae)
Annual Salt Eriogonum (Eriogonum salicornoides)
Barren Milk-vetch (Astragalus sterilis)
Broad Fleabane (Erigeron latus)
Bruneau River Prickly Phlox (Leptodactylon glabrum)
Cusick's Camas (Camassia cusickii)
Cusick's False Yarrow (Chaenactis cusickii)
Davis Peppergrass (Lepidium davisii)
Desert Dandelion (Malacothrix glabrata)
Dimersia (Dimersia howellii)
Giant Helleborine (Epipactis gigantea)
Greeley's Parsley (Cymopterus acaulis var. greeleyorum)
Hooked Stylocline (Stylocline filaginea)
Inch High Lupine (Lupinus uncialis)
Large Flowered Gymnosteris (Gymnosteris nudicaulis)
Least Phacelia (Phacelia minutissima)
Malheur Cryptantha (Cryptantha propria)
Matted Cowpie Buckwheat (Eriogonum shockleyi var. shockleyi)
Mourning Milk-vetch (Astragalus atratus var. inseptus)
Mulford's Milk-vetch (Astragalus mulfordiae)
Murphy Milk-vetch (Astragalus camptopus)
Osgood Mountains Milk-vetch (Astragalus yoder-williamsii)
Owyhee Clover (Trifolium owyheense)
Owyhee Mourning Milk-vetch (Astragalus atratus var. owyheensis)
Packard's Sagebrush (Artemisia packardiae)
Rattlesnake Stickseed (Hackelia ophiobia)
Rigid Threadstem (Nemacladus rigidus)
Simpson's Hedgehog Cactus (Pediocactus simpsonii var. robustior)
Small Flowered Gymnosteris (Gymnosteris parvula)
Smooth Stickleaf (Mentzelia mollis)
Snake Canyon Milk-vetch (Astragalus vallaris)
Snake River Goldenweed (Haplopappus radiatus)
Spine-Noded Milk-vetch (Peteria thompsonae)
Squaw Apple (Peraphyllum ramosissimum)
Texas Spored Lichen (Texosporium sancti-jacobi)
Torrey's Blazing Star (Mentzelia torreyi var. acerosa)
Torrey's Malacothrix (Malacothrix torreyi)
Webber's Needlegrass (Stipa webberi)
White Eatonella (Eatonella nivea)
White Margined Wax Plant (Glyptopleura marginata)
Wilcox's Primrose (Primula wilcoxiana)
Yellow Phacelia (Phacelia lutea var. calva)

Plant Distribution by Soil Characteristics

Coarse Sand
Allium aaseae
Astragalus mulfordiae
Cymopteris acaulis var. greeleyorum

Fine Alluvial Sand
Astragalus camptopus
Astragalus kentrophyta var. jessiae
Eatonella nivea
Gymnosteris nudicaulis
Gymnosteris parvula
Malacothrix glabrata
Malacothrix torreyi
Mentzelia torreyi var. acerosa

Volcanic Ash
Astragalus sterilis
Chaenactis cusickii
Cryptantha propria
Cymopteris acaulis var. greeleyorum
Eriogonum salicornoides
Glyptopleura marginata
Malacothrix glabrata
Malacothrix torreyi
Mentzelia mollis
Nemacladus rigidus
Phacelia lutea var. calva
Trifolium owyheense

Volcanic Cinder
Astragalus yoder-williamsii
Dimersia howellii
Eatonella nivea
Erigeron latus
Glyptopleura marginata
Gymnosteris nudicaulis
Gymnosteris parvula
Lupinus uncialis
Mentzelia torreyi var. acerosa
Nemacladus rigidus
Peteria thompsonae
Stylocline filaginea

Rhyolite Cliffs
Artemisia packardiae
Hackelia ophiobia
Leptodactylon glabrum

Clay Loam
Astragalus vallaris
Peraphyllum ramosissimum
Primula wilcoxiana
Stipa webberi
Texosporium sancti-jacobi

Silt Loam
Astragalus yoder-williamsii
Camassia cusickii
Haplopappus radiatus

Calcareous Hot/Cold Springs
Epipactis gigantea

Playa or Natric Sites
Lepidium davisii
Lepidium montanum var. papilliferum

Thin Soil over Basalt
Astragalus atratus var. inseptus
Astragalus atratus var. owyheensis
Malacothrix torreyi
Pediocactus simpsonii var. robustior
Stipa webberi
Stylocline filaginea

Plant Distribution by Vegetation Types

Sagebrush-Grassland
Artemisia atratus var. inseptus
Cryptantha propria
Dimersia howellii
Gymnosteris nudicaulis
Gymnosteris parvula
Haplopappus radiatus
Peraphyllum ramosissimum
Primula wilcoxiana
Stipa webberi

Wyoming Big Sage
Astragalus camptopus
Erigeron latus
Eriogonum salicornoides
Lepidium davisii
Lepidium montanum var. papilliferum
Nemacladus rigidus
Trifolium owyheense (on ash surrounded by Wyoming Sage)

Wyoming Sage-Shadscale
Astragalus camptopus
Astragalus kentrophyta var. jessiae
Cymopterus acaulis var. greeleyorum
Eatonella nivea
Eriogonum shockleyi var. shockleyi
Glyptopleura marginata
Mentzelia mollis
Mentzelia torreyi var. acerosa
Nemacladus rigidus
Phacelia lutea var. calva

Salt Desert Shrub
Astragalus camptopus
Chaenactis cusickii
Eatonella nivea
Eriogonum salicornoides
Lepidium davisii
Malacothrix torreyi
Mentzelia mollis
Mentzelia torreyi var. acerosa
Peteria thompsonae
Phacelia lutea var. calva

Low Sage
Astragalus atratus var. owyheensis
Astragalus yoder-williamsii
Erigeron latus
Pediocactus simpsonii var. robustior

Mountain Big Sage
Astragalus yoder-williamsii
Phacelia minutissima
Primula wilcoxiana

Bitterbrush-Bluebunch Wheatgrass
Allium aaseae
Astragalus mulfordiae
Astragalus sterilis
Astragalus vallaris
Camassia cusickii

Rabbitbrush
Malacothrix glabrata
Texosporium sancti-jacobi

Rhyolite Canyons
Artemisia packardiae
Hackelia ophiobia
Leptodactylon glabrum

Calcareous Springs (hot or cold)
Epipactis gigantea

Eriogonum thymoides
Stipa webberi

Mountain Brush
Peraphyllum ramosissimum

(These vegetation types are generalizations of where a plant may occur. Some species are not so easily classified, and may occur in several vegetative zones.)

Allium aaseae (Aase's Onion)

Family: Liliaceae (Lily)

Status: Federal Category I (C1) recommended for Threatened status

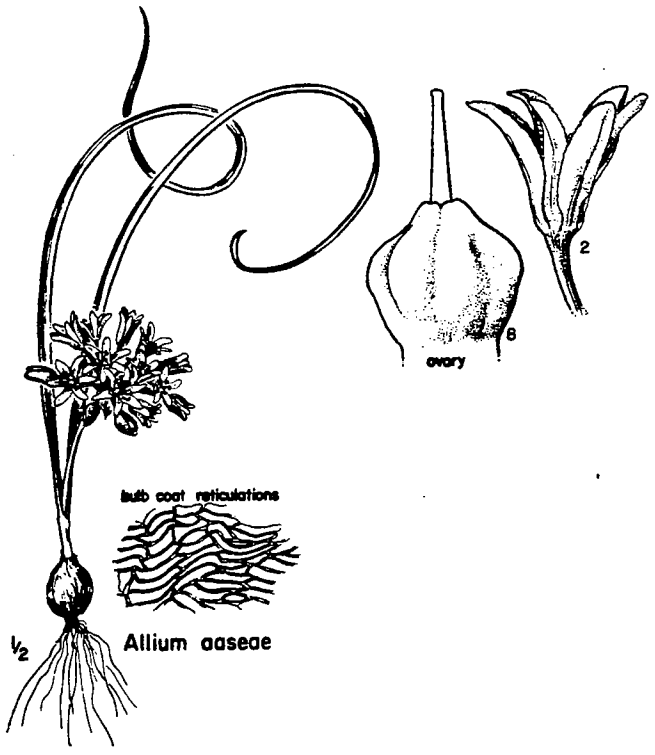
Known Locations: Ada, Boise, Gem Counties, Idaho

T6N, R1W, Sec. 1,2,3,10,11,12 Sand Hollow
T6N, R1W, Sec. 21,22,23,24, Pearl Mining Claims
T6N, R1W, Sec. 33,34 Willow Creek
T6N, R1E, Sec. 24,36
T6N, R2E, Sec. 28,34 Cartwright Canyon
T5N, R1E, Sec. 1,4,7,8,9,10,14,15,17 22-28 West of Spring Valley
T5N, R2E, Sec. 27,34 Dry Creek Valley
T4N, R1E, Sec. 13 Seamen Gulch
T4N, R2E, Sec. 6-9, 15,16,17,20,21,23,25,26,34,35,36 Boise Foothills
T4N, R3E, Sec. 20,21 Hull's Gulch
T3N, R2E, Sec. 1,2 Cottonwood Creek

Soil Type: Lolilita coarse silica sand

Habitat and Ecology: A small perennial onion growing in coarse sandy soil, often with bitterbrush. Sites are on south, west, and occasionally east-facing slopes in the sagebrush-grassland zone, and are usually found on or near ridgetops. Found from 2,850 feet up to 5,000 feet. Aase's onion blooms from as early as February until mid-May.

Threats: Urbanization, sand mining, off-road vehicles, invasion of annual weedy grasses and other exotics.



Key Characteristics

Two leaves, twice as long as stem
Flowers deep pink, usually laying on the soil surface
Early bloomer
Coarse sandy soils

Artemisia packardiae (Packard's Sagebrush)

Family: Asteraceae (Composite)

Status: Review species on the State Sensitive Plant List

Known Locations: Owyhee County, Idaho
Malheur County, Oregon
Elko, Humboldt Counties, Nevada

Idaho

T10S, R3W, Sec. 27 Deep Creek off the Owyhee River
T14S, R1W, Sec. 18 The Tules, E Fork Owyhee River
T15S, R4W, Sec. 15
T15S, R4W, near the junction of Red Canyon
Little Jacks Creek RNA
The East Fork of the Owyhee River, from the pipeline crossing to Red Canyon
Cottonwood Creek of Big Jack's drainage

Soil Type: Rhyolitic cliffs, usually of mesic microsites or E or N faces

Habitat and Ecology: A perennial herb with a strong smell, found only on vertical rhyolite cliffs. The plant appears to be restricted to the Owyhee and Humboldt River drainages, but more work on its biology and taxonomy is needed. It is found at elevations from 4,000-5,500 feet. The plant's foliage is dark green, leaves lack surface hairs, and its odor is not sagebrush-like. More collections should be made to determine its range. Blooms May to July.

Threats: None known

Key Characteristics

Restricted to rhyolite cliffs
Leaves sticky and with a
strong odor
Flowers yellow
Plants 20-50 cm tall

Artemisia packardiae

Packard's Sagebrush

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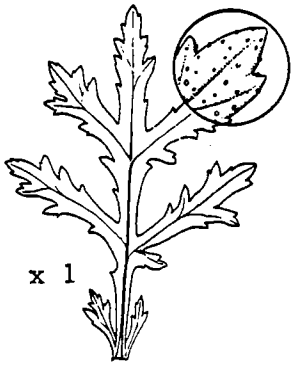

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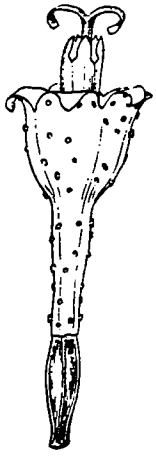

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Astragalus atratus var. inseptus (Mourning Milk-Vetch)

Family: Fabaceae (Legume)

Status: Federal Category II (C2) recommended for Threatened status

Known Locations: Blaine, Camas, Gooding, Lincoln Counties, Idaho

T1S, R20E, North of Picabo on sage hillsides
T2S, R16E, Sec. 12 West of Magic Reservoir
T2S, R18E, Sec. 3 NW,18 SWNE & NENW & N1/2,20 SENE
T3S, R16E, Sec. 6 NENW near junction of Lincoln, Camas, and Gooding Counties
T3S, R20E, Sec. 10 SESW & NWNE,19 SENE
T4S, R16E, Sec. 18 Preacher Creek NE of Gooding
T6S, R13E, Sec. 20 SE South of Bliss
T3S, R17E, Sec. 27 SE South of Shoshone
T7S, R13E, Sec. 32 near Buckeye Ranch SW of Hagerman

Soil Type: Thin rocky soil over basalt

Habitat and Ecology: A perennial found on thin soil over basalt that is wet in spring but dry at other seasons. Clumps of this plant blend in well with the surrounding grasses due to the narrow leaves. Often grows with Idaho fescue. ± 5,000 feet elevation. Blooms May to June.

Threats: Range improvement programs and grazing

Key to two varieties of Astragalus atratus:

1. Leaflets all very small, narrow, and remote, the terminal one continuous with the rachis or represented by a small dilation of the rachis; pod of papery texture; sagebrush slopes .....var. owyheensis

1. Leaflets more ample and less scattered, the terminal one jointed to the rachis; pod of leathery texture; stony flats where moist in spring .....var. atratus

(see drawing on next page)

Key Characteristics

Flowers white, sometimes faintly lilac-tinged
Leaflets 9-15, terminal one jointed to the stem
Pods with leathery texture
Pods 12-18 mm long & 3-4 mm wide

Astragalus atratus var. owyheensis (Owyhee Mourning Milk-Vetch)

Family: Fabaceae (Legume)

Status: Sensitive on the BLM and State Sensitive Plant Lists

Known Locations: Elmore, Owyhee, Twin Falls Counties, Idaho
Baker, Malheur Counties, Oregon
Elko County, Nevada

Idaho
T2S, R9E, Sec. 18 Bennett Mountain area
T3S, R4W, Sec. 2 14 miles W of Murphy, near Babbington Creek
T5S, R9E, Sec. 34 two miles W of Glenn's Ferry
T7S, R13E, Sec. 32 SW of Hagerman, Peter's Gulch area
T9S, R13E, Sec. 11 Salmon Falls Creek
T14S, R1E, Sec. 26 SW of Shoo Fly Creek
T14S, R13E, Sec. 7 E of Devil Creek
T16S, R9E, Sec. 11 near Murphy Hot Springs
Bennett Mountain area
above the "Hot Hole" of the East Bruneau (historic collection)
Near the dam at Salmon Falls Creek

Soil Type: Gravelly flats and steep slopes on basalt

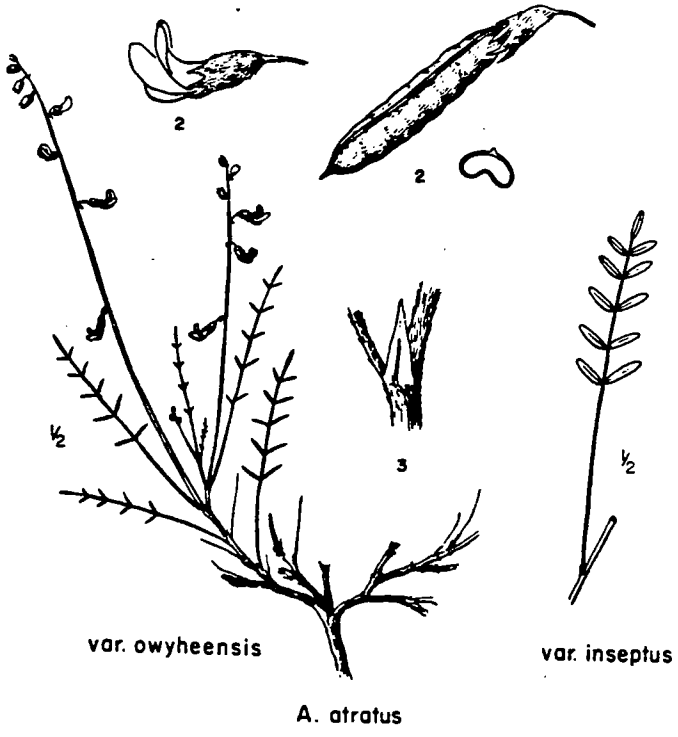
Habitat and Ecology: A perennial with many very slender, often prostrate and creeping to erect stems. Found on steep hillsides and gravelly flats, on basalt, usually taking shelter under and entangled in low sagebrush. From 3,500 to 6,000 feet. Often on bluffs overlooking the Snake River Canyon. Its leaves blend in with the leaves of grass and are not easily noticed. Blooms from May to July

Threats: Range improvement programs, overgrazing, agricultural development

Key Characteristics:

Flowers whitish, purplish-lined or -tinged and 8-9 mm long
Leaflets 7-11, terminal one continuous with the stem
Pod 14-20 mm long & 3-4 mm wide
Pod of papery texture

(see key on previous page)



A. atratus

Astragalus camptopus (Murphy Milk-Vetch)

Family: Fabaceae (Legume)

Status: Federal Category 3C and Sensitive on the BLM and State Sensitive Plant Lists

Known Locations: Owyhee County, Idaho

T1S, R2W, Sec. 28,29,33,34 S of Melba
T2S, R2W, Sec. 3,4,23,32 Murphy area
T2S, R5E, Sec. 20 Squaw Creek
T3S, R2W, Sec. 10,12 S of Murphy
T6S, R3E, Sec. 34,22 about 10 miles S of Grandview
T6S, R5E, Sec. 24 Bruneau
T7S, R2E, Sec. 14 15 miles SW of Grandview
T7S, R3E, Sec. 2,3,4,5,7,9 Shoofly Creek area, S of Grandview
T7S, R5E, Sec. 5,20 NWNW,21,30,31 8-11 miles SW of Bruneau
T7S, R6E, Sec. 7 S of Bruneau
T7S, R3W, Sec. 4 Rabbit Creek, 3 miles S of Walter's Ferry
T8S, R5E, Sec. 6 12 miles S of Bruneau
T8S, R6E, Sec. 20 6 miles SW of the town of Hot Spring
Wiese's Bar of Snake River

Soil Type: Arid sandy soil

Habitat and Ecology: A perennial plant endemic to the area between Murphy and Bruneau. It is found only on sandy soils in shadscale-horsebrush-greasewood habitat. Also in the Wyoming big sage-Sandberg bluegrass zone. Found from 2,400-3,200 feet. It often grows in extensive colonies and has been found along roadsides and streambeds. Blooms May and June.

Threats: Increased agriculture, off-road vehicles, and range improvement programs

Key Characteristics

Pods forming more than a complete circle
Flowers bright purple
Restricted habitat
Grows in colonies

Astragalus kentrophyta var. jessiae (Thistle Milk-Vetch)

Family: Fabaceae (Legume)

Status: Sensitive on the BLM and State Sensitive Plant Lists

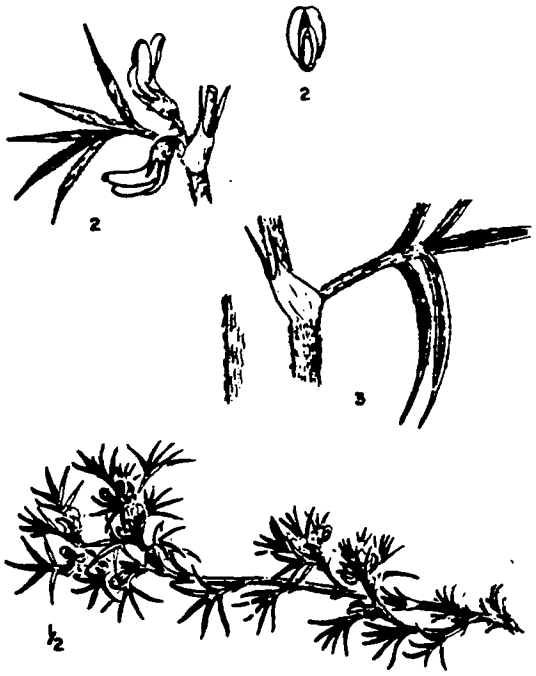
Known Locations: Butte, Owyhee Counties, Idaho
Sweetwater, Sublette, Fremont Counties, Wyoming
Malheur County, Oregon

Idaho
T4S, R1W, Sec. 4 West of Fossil Butte, 10 miles E of Murphy
T4S, R1W, Sec. 23,24 NW of Oreana
T5S, R3E, Sec. 7 NW of Grand View
T6S, R6E, Sec. 18 one mile N of Bruneau
T7S, R5E, Sec. 5,31 SW of Bruneau, six and eleven miles respectively
T7S, R6E, Sec. 36 eight miles SE of Bruneau
T8S, R7E, Sec. 6 nine miles SE of Bruneau in Seventy-one Mile Gulch
T9S, R5E. Sec. 5 Sugar Creek
INEL (Idaho National Engineering Laboratory)
Fish fossil beds SE of Walter's Ferry Bridge

Soil Type: Barren, fine alluvial sandy and shale soils

Habitat and Ecology: A perennial found on sandy bluffs, gravelly hilltops, gullied knolls, and dunes or dunelike sandy flats. From 2,450-3,200 feet in elevation along the south affluents of the Snake River in Owyhee County, in the Wyoming big sage zone. On soils subject to severe erosion. Commonly with shadscale and greasewood. In open stands of Utah juniper in Butte County (INEL). Blooms June to August

Threats: Off-road vehicles, agricultural developments, desert land entries



Key Characteristics

Prostrate, loosely matted foliage becomes prickly with age
Flowers whitish, sometimes faintly pink- or lilac-tinged
Atypical Astragalus leaf shape

Astragalus mulfordiae (Mulford's Milk-Vetch)

Family: Fabaceae (Legume)

Status: Federal Category I (C1) recommended for Endangered status

Known Locations: Ada, Owyhee, Payette, Washington Counties, Idaho
Malheur County, Oregon (historic site)

Idaho
T1S, R3W, Sec. 14 Reynolds Creek area
T2S, R1W, Sec. 6 NW historic record, near Halverson Lake
T5S, R3E, Sec. 11,22 near Grand View
T7S, R3E, Sec. 5 Oolytic limestone site, 12 miles S of Grand View
T7S, R5E. Sec. 20 seven miles SW of Bruneau, apparently extirpated
T3N, R2E, Sec. 2 SWNE & NW & NESW & center,12,14 Military Reserve Park
T4N, R2E, Sec. 15,35 SESE,36 SESW Boise Foothills
T9N, R5W, Sec. 12 NE historic record, eight miles NE of Payette
T10N, R5W, Sec. 36 Sand Hollow NE of Payette
T11N, R4W, Sec. 21 SWNW,28 NWNWNW,32 NWNESW & SENW Rebecca Sand Hill
T11N, R5W, Sec. 26,29,35 Sagebrush Hill east of Weiser

Soil Type: Deep sandy soil

Habitat and Ecology: A very deep rooted perennial found on south or west-facing sandy slopes of alluvial deposits and dunelike talus in the foothills. Grows in the sagebrush-grassland life zone at the west end of the Snake River Plain from 2,000-3,000 feet. Blooms from May to June.

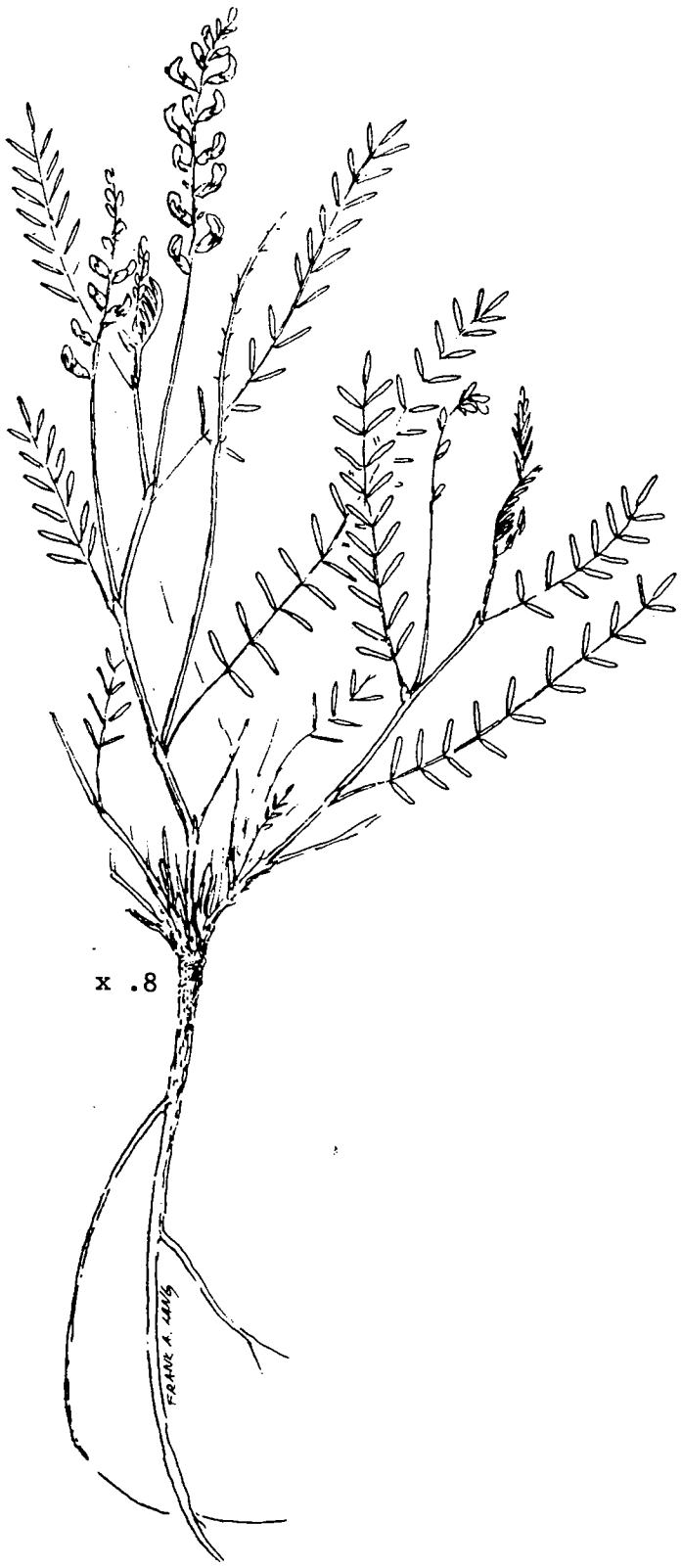
Threats: Urbanization and grazing. It appears to be destroyed by grazing and is now only found in pristine sites.

Key Characteristics

Flowers white, 6-8 mm long
Leaflets 15-25, scattered
Pods 10-16 mm long with
a 3-sided cross-section

Astragalus mulfordiae

Mulford's Milk-Vetch



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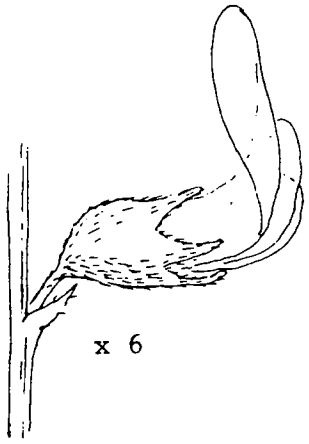

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Astragalus sterilis (Barren Milk-Vetch)

Family: Fabaceae (Legume)

Status: Federal Category II (C2) recommended for Threatened status

Known Locations: Owyhee County, Idaho
Malheur County, Oregon

Idaho
T1S, R5W, Sec. 30 NWNE 1/2 mile N of McBride Creek Road, E of Hwy 95
T2S, R6W, Sec. 11 one mile from OR-ID border, Upper Dry Creek

Soil Type: Barren diatomaceous earth or volcanic ash within the Succor Creek Formation

Habitat and Ecology: A rhizomatous, wiry perennial of ash soils not breaking down into clay. On bluffs and knolls at 4,000-4,300 feet in Idaho. Associated with bitterbrush and Sandberg bluegrass. The plant was relocated in Idaho in 1986 for the first time since 1948. Its fine, wiry appearance and sparse leaves make it difficult to locate. Active mining claims cover the entire area at the Dry Creek site, and the McBride Creek site is mostly within the highway right-of-way. Blooms May and June.

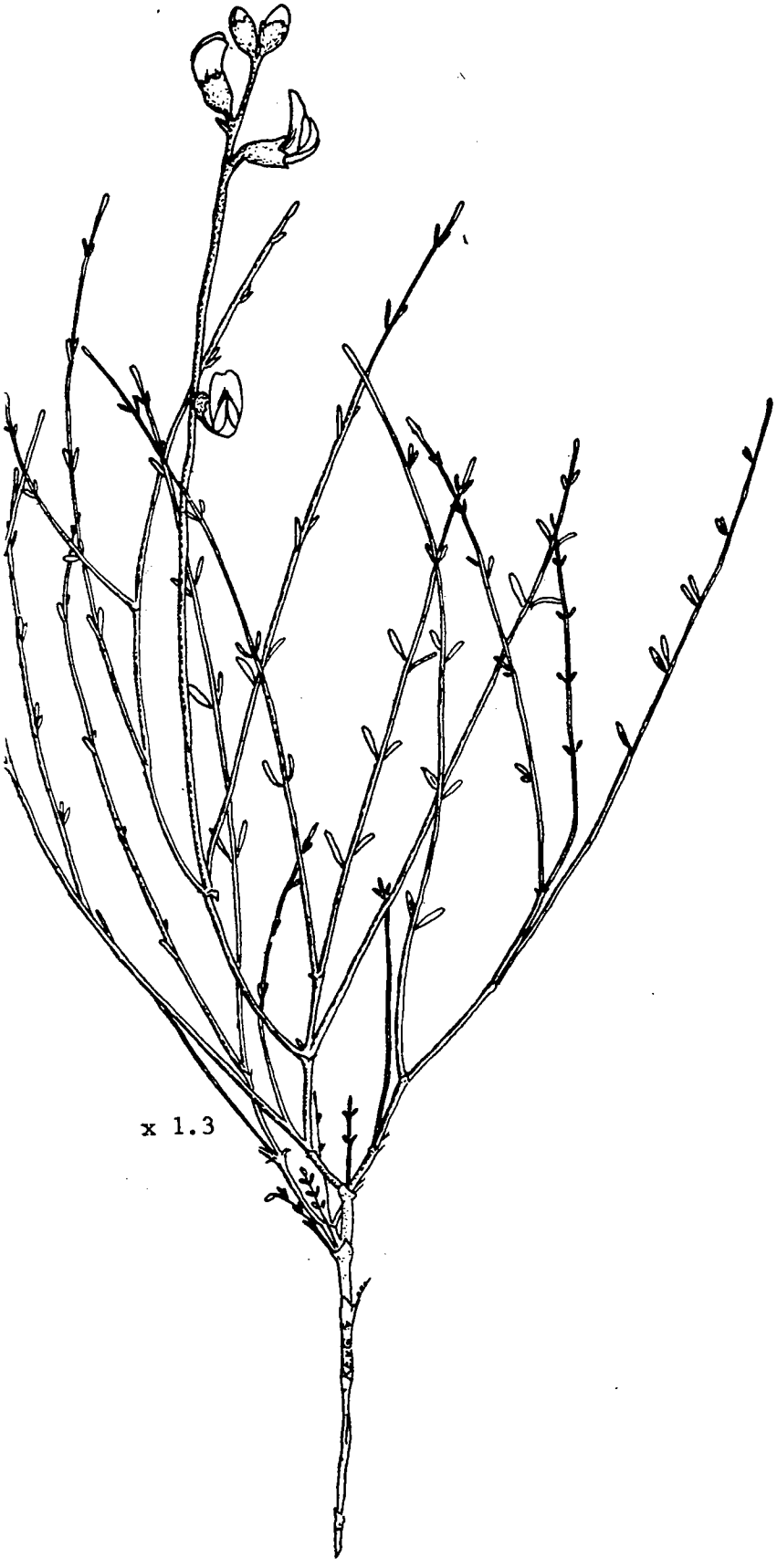
Threats: Mining and off-road vehicles, range improvement projects

Key Characteristics

Pods inflated, papery,
purple-mottled
Leaves sparse, stems wiry
Flowers yellowish
Plants rhizomatous

Astragalus sterilis

Barren Milk-Vetch



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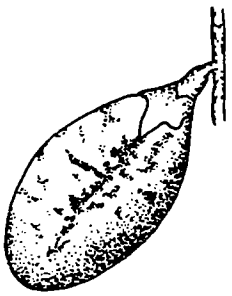

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Astragalus vallaris (Snake Canyon Milk-Vetch)

Family: Fabaceae (Legume)

Status: Sensitive on the BLM and State Sensitive Plant Lists

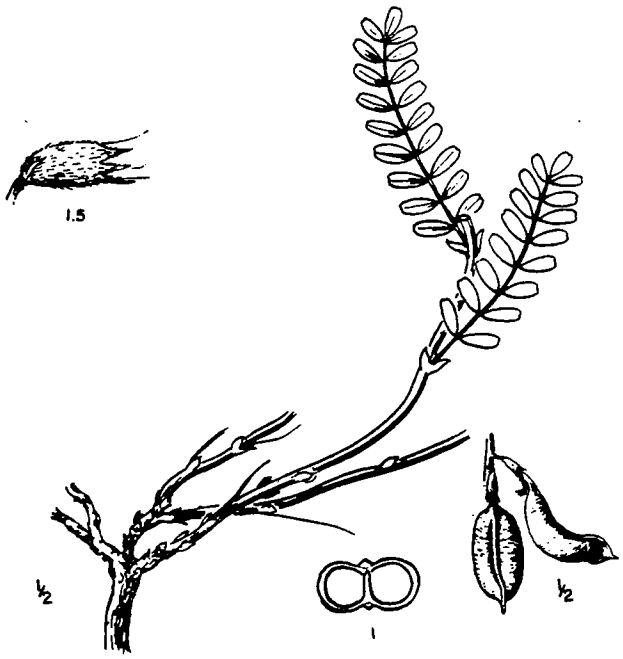
Known Locations: Adams, Washington Counties, Idaho
Baker, Malheur Counties, Oregon

Idaho
T14N,R5W, Sec. ? 4th of July Creek
T14N, R6W, Sec. 8 Dennett Creek by Brownlee Reservoir
T14N, R7W, Sec. 23 Sumac Creek by Brownlee Reservoir
T18N, R4W, Sec. 3 SESW,4 NESE Summer Creek
T18N, R4W, Sec. 13,35 Wildhorse River
NW of Weiser (historic record)
In disturbed area by road-cut at airstrip, Hells Canyon Reservoir

Soil Type: Clay loam of basaltic origin

Habitat and Ecology: A low-growing perennial on steep, south-facing hillsides in bitterbrush and bluebunch wheatgrass communities in the Snake River Canyon. Of the few known sites, their presence on range in good condition may indicate that livestock grazing has been responsible for severely reducing the number of populations.
Blooms early, from April to June. In 1984, most plants were already in fruit by mid-May.

Threats: Overgrazing and range improvement programs



Key Characteristics

Flowers whitish, ± 2 cm long
Large, fleshy pods 2.4-4 cm long
Pods elevated on thick stipes
Pods contracted at both ends, and very thick and sturdy

Astragalus yoder-williamsii (Osgood Mountains Milk-Vetch)

Family: Fabaceae (Legume)

Status: Federal Category II (C2) recommended for Threatened status.

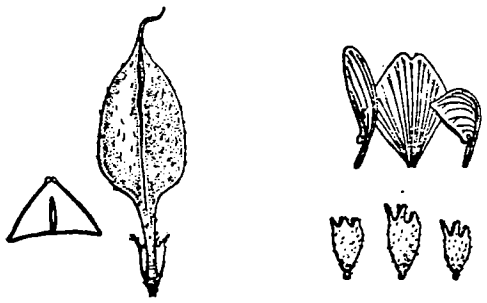
Known Locations: Owyhee County, Idaho
Humboldt County, Nevada (one site)

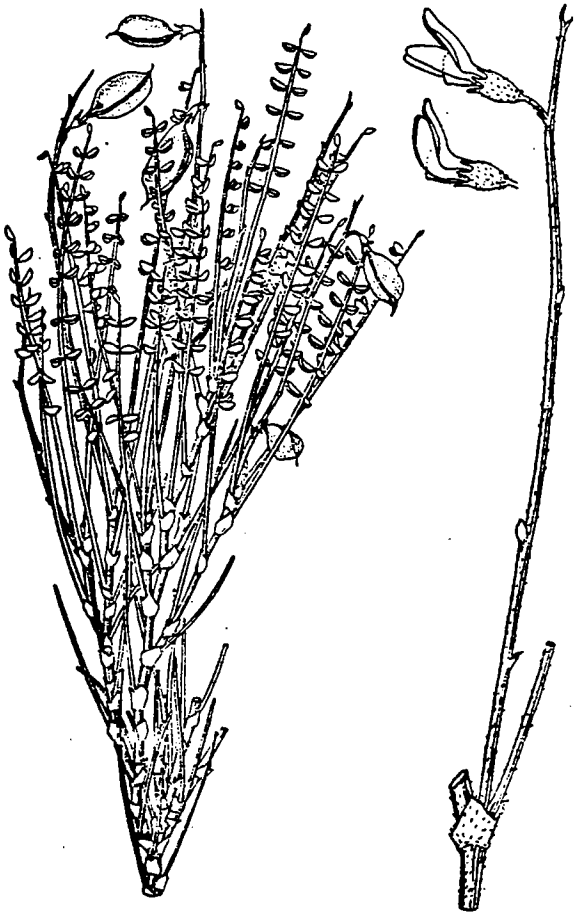
Idaho
T7S, R2W, Sec. 6,7 4 miles N of Triangle
T8S, R1W, Sec. 36 NW Battle Creek
T9S, R1W, Sec. 3,8,10 (sites uncertain and unable to be relocated, N of Big Springs Ranch)
T10S, R3W, Sec. 2,8 NW Hurry Back Creek, Owyhee Mtns.
T10S, R4W, Sec. 21,23 NW,31 East of Pleasant Valley Creek, Owyhee Mtns.
T10S, R5W, Sec. 22,36 South of the North Fork Owyhee River
T11S, R4W, Sec. 11,14 Smith Creek

Soil Type: In Idaho on fine loamy, mixed, frigid Typic Argesoll soils. In Nevada on decomposed granitic gravel

Habitat and Ecology: A dwarf, densely tufted perennial from mixed low sage and lower elevation mountain big sage-rabbitbrush sites. Also found on rhyolitic gravel soils in low sage-Eriogonum habitat. Elevational range is from 5,200 to 6,000 feet. In the field, particularly when dry, its visual appearance is similar to a clump of Idaho fescue. Blooms from May to June

Threats: Off-road vehicle use on the easily erodable soils, mining





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

Camassia cusickii (Cusick's Camas)

Family: Liliaceae (Lily)

Status: Federal Category 3C and Sensitive on the BLM and State Sensitive Plant Lists

Known Locations: Ada, Adams, Gem, Washington Counties
Baker County, Oregon
Idaho
T2N, R4W, Sec. 22 or 23 about 4 miles SSE of Marsing, probably extirpated
T8N, R1W, Sec. 13,24 or 25 Squaw Butte (historic record)
T17N, R5W, Sec. 27 or 28 Warm Springs Creek, Brownlee Reservoir
T18N, R4W, Sec. 3 SWSW,4 SENE & NESE,9 NWSW & SESW,10 NENE,21 SWNW,33 SWSE
T19N, R4W, Sec. 17,20 West of Oxbow Dam Spillway
Snake River, just below Oxbow Dam (1974 historic record)
One mile N of Oxbow Bridge (historic record, no longer present)

Soil Type: Silt loam of basaltic origin

Habitat and Ecology: Perennial liliaceous plant found on steep, moist slopes and terraces and basaltic cliffs, and in portions of streams with slow-moving water. Within the bitterbrush and bluebunch wheatgrass communities of the Snake River Canyon. Historically found in open meadows in Oregon. Populations found in 1985 were grazed by cattle. Blooms April to July, dependent upon elevation. (If located, dig up the bulb for positive identification.)

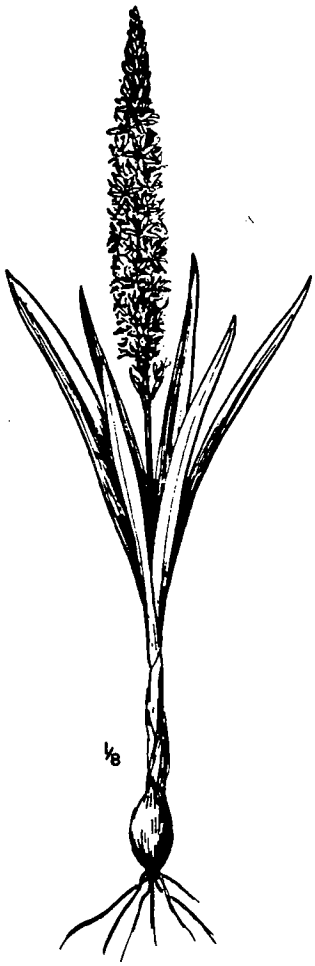
Threats: Livestock grazing

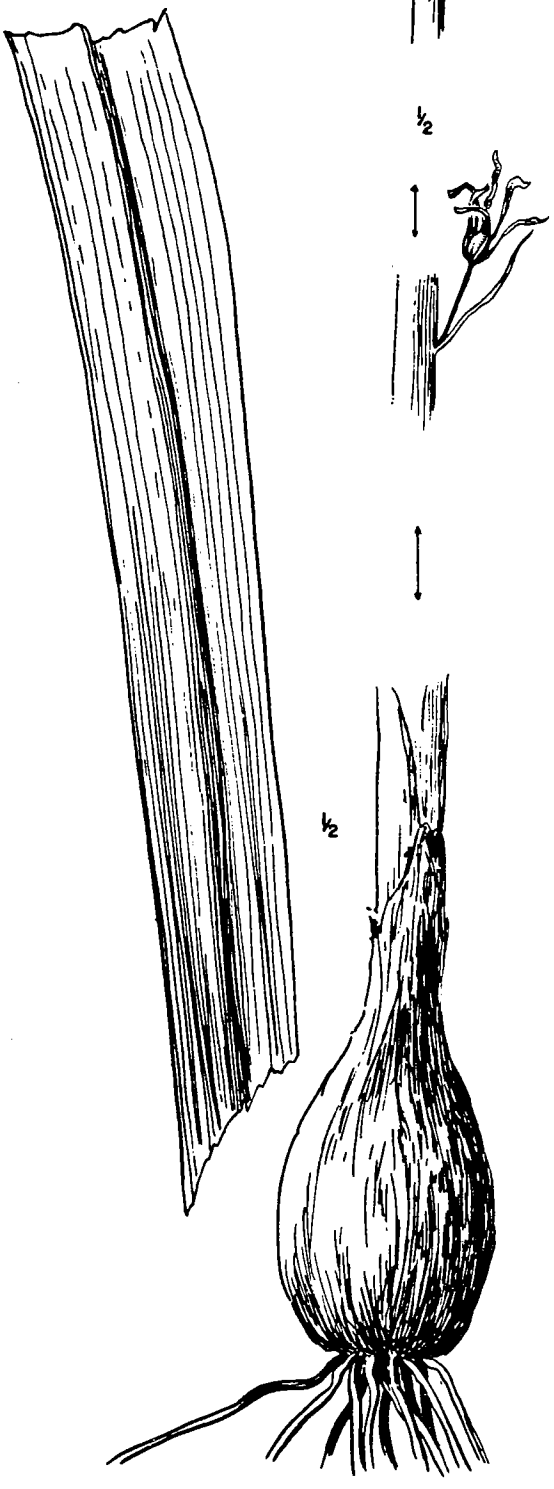
Key Characteristics

A very large blue Camas
Leaves 10 or more
Leaves broad, 10-40 mm
Bulbs clustered, 5-10 cm long
and ill-smelling

Camassia cusickii

Cusick's Camas





Carex aboriginum (Indian Valley Sedge)

Family: Cyperaceae (Sedge)

Status: Federal Category II (C2) believed to be extinct

Known Locations: Adams County, Idaho

Approximately T14N, R1W, 10 miles E of Cambridge
Indian Valley, collected on July 12, 1899 (type collection)
This collection is in the New York Botanical Gardens Herbarium

Soil Type: "Dry gumbo soil wet in the spring"

Habitat and Ecology: This species appears to occur in gumbo soil, but with so few collections little more can be said. It grows at approximately 2,700 to 3,000 feet elevation. "This species needs field investigation and may be extinct, but the notably rich representation of the Cyperaceae in the type locality suggests that it may still exist," taken from the 1981 "Red Book," Vascular Plant Species of Concern in Idaho. Indian Valley Sedge has been unsuccessfully searched for by Heritage Program botanists in the last several years. More field work should be done in the Indian Valley area in late June or July to determine if the plant is still present. It probably occurs on private lands.

Threats: None known

Key Characteristics

Stems loosely clustered from
short rhizomes
Plants 15-80 centimeters tall
Achene bract (perigynia) inflated,
with a bidentate beak

Carex aboriginum

Indian Valley Sedge

Chaenactis cusickii (Cusick's False Yarrow)

Family: Asteraceae (Composite)

Status: Priority 1 on the State Sensitive Plant List

Known Locations: Owyhee County, Idaho (probably extinct in Canyon County)
Malheur County, Oregon (8 known sites)

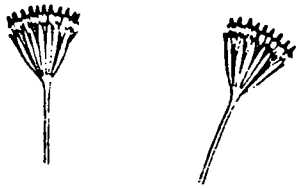
Idaho

T1S, R4W, Sec. 6 Shares Basin
T1S, R5W, Sec. 13,19 center Sec. 13 is a historic site, S. 19 is by McBride Creek
T1S, R6W, Sec. 1 1.5 miles N of The Rocks State Station on Sands Basin Road
T1N, R4W, Sec. 3,4 1937 collection, "Squaw Creek, above Blackstock Ranch", section numbers not certain
T2N, R4W, Sec. 22 or 23 about 4 miles SSE of Marsing, historic record
T2N, R5W, Sec. 22,27 near Jump Creek Canyon

Soil Type: Loose volcanic ash with a small pick up of clay

Habitat and Ecology: An annual found in dry, open places on volcanic ash soils, particularly of the Succor Creek Ash variety. Fairly restricted to this soil type, though not as much as most volcanic ash plants. Elevational range is from 2,400 to 4,100 feet, more commonly in the lower range in Atriplex-Wyoming big sage zone. Flower is similar to that of the common false yarrow (C. douglasii), but Cusick's false yarrow is an annual, has entire leaves, and is of smaller stature. Blooms April to May.

Threats: Off-road vehicles and mining of the substrate to line irrigation ditches.



Key Characteristics

Flowers white to whitish
Plant less than 10 cm tall
Leaves entire
Stem sparsely woolly

Cryptantha propria (Malheur Cryptantha)

Family: Boraginaceae (Borage)

Status: Review species on the State Sensitive Plant List

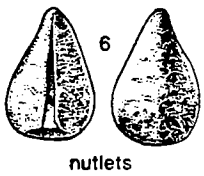
Known Locations: Owyhee, Payette (?) Counties, Idaho
Malheur County, Oregon

Idaho
T2S, R4W, Sec. 24 NWNE Summit of low hill W of Reynolds Creek crossing
Snake River bluffs, 1932 record
Squaw Creek, 1938 record
Marsing, 1936 record
18 miles below Weiser, 1910 record

Soil Type: Bare soil, ash, and clay slopes

Habitat and Ecology: A perennial of dry open hillsides in the sagebrush-grassland zone from 3,000-4,000 feet. The plant is known from only 6-8 sites in Idaho and Oregon. This may be partly due to the difficulty in determining Cryptantha species, so that many collectors avoid them. It should be searched for and collected to determine its distributiion. Blooms April to May.

Threats: Range improvement programs, diatomaceous earth mining



Key Characteristics

Flowers white
Several to numerous equal erect stems
Plants 10-24 cm tall
Leaves entire, basal ones densely tufted
Fruits are in form of nutlets

Cymopterus acaulis var. greeleyorum (Greeley's Parsley)

Family: Apiaceae (Carrot)

Status: Sensitive on the BLM and State Sensitive Plant Lists

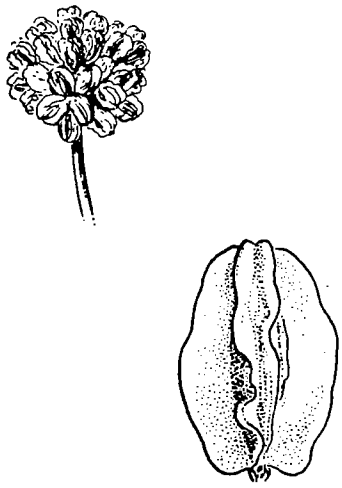
Known Locations: Owyhee County, Idaho
Succor Creek Canyon, Malheur County, Oregon

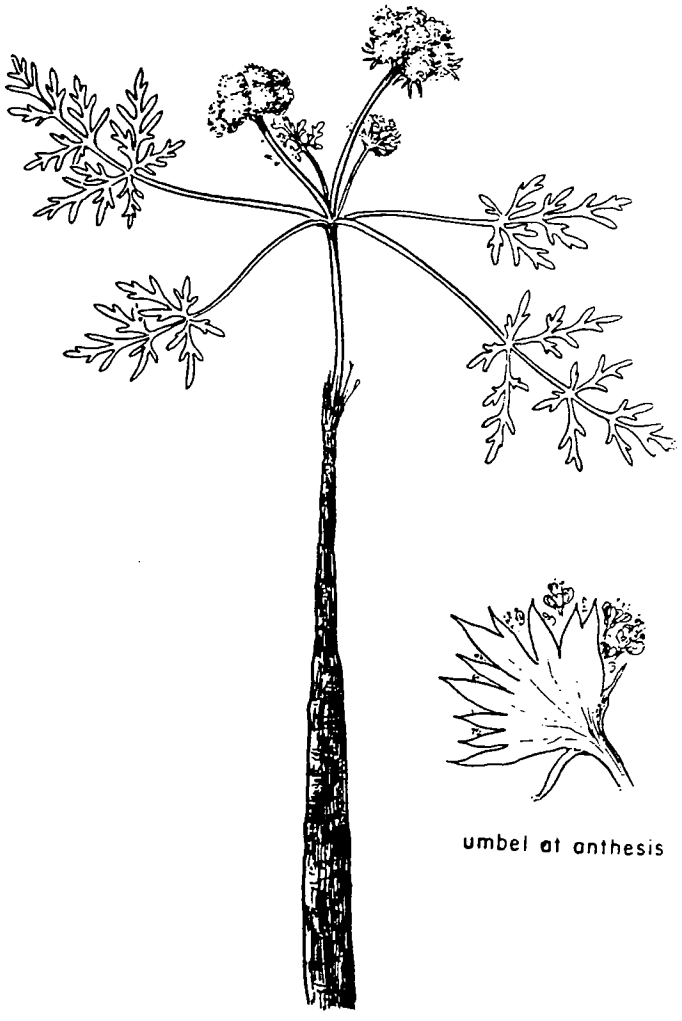
Idaho
T6S, R6E, Sec. 22 NENE Bruneau Sand Dunes State Park
T6S, R6E, Sec. 22 ridge SW of Bruneau Sand Dunes State Park

Soil Type: Sandy soil in Idaho. Known in Oregon only from Succor Creek ash

Habitat and Ecology: A low-growing perennial with a very dense fruiting umbel. Sites in Idaho and Oregon differ greatly, but they are similar in that they undergo a lot of soil movement. The sand is loosely held together while the ash deposits that have weathered to clay shrink and swell greatly. The ash sites support other rare plants such as Mentzelia mollis and Chaenactis cusickii, while most other plant species will not grow there. On sandy sites it is associated with Indian ricegrass and prickly phlox in the Wyoming big sage-grassland zone. This variety is distinguished from the common var. acaulis by its bright yellow flowers (rather than white). Blooms March and April.

Threats: Off-road vehicles





umbel at anthesis

Key Characteristics

Restricted habitat
Flowers yellow
Ultimate leaf segments are larger than those of the typical variety

Dimersia howellii (Dimersia)

Family: Asteraceae (Composite)

Status: Federal Category 3C and Sensitive on the BLM and State Sensitive Plant Lists

Known Locations: Owyhee County, Idaho
Harney, Malheur Counties, Oregon
Elko, Humboldt, Washoe Counties, Nevada
California (present in two NE counties)

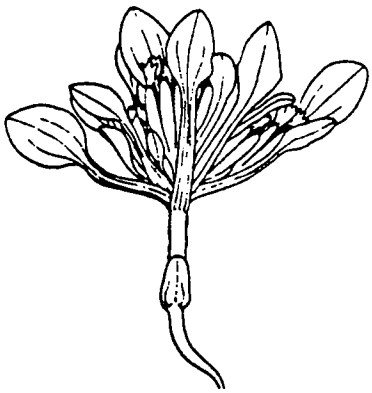
Idaho

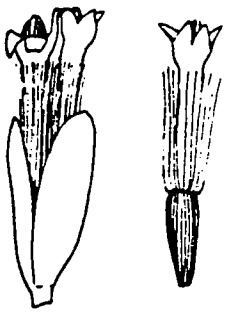
T1S, R4W, Sec. 6,34 Shares Basin; the divide between Squaw & Reynold's Crk
T1S, R5W, Sec. 13 center South of Shares Basin
T3S, R3W, Sec. 20 NENE near Dryden Creek and SE of Reynolds
T9S, R6W, Sec. 36 near North Fork Owyhee River crossing
T10S, R5W, Sec. 6 near North Fork crossing
T10S, R6W, Sec. 1 just N of Fairylawn above N. Fork Owyhee River

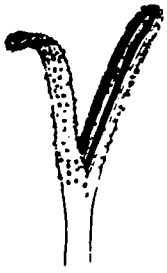
Soil Type: Volcanic gravel, cinder size

Habitat and Ecology: A dwarf, cushion-like annual in the sunflower family. Found on dry, gravelly or rocky volcanic soil at low to mid elevations in the mountains. In Oregon it is found as low as 3,900 feet, while in Humboldt CO, Nevada it grows on an alpine ridge at 7,600 feet. Its habitat is usually surrounded by sagebrush, but no other plants occur directly with Dimersia except annual buckwheats. Idaho is at the NE edge of plant's range. Blooms from May to July.

Threats: Off-road vehicles. Its habitat protects it from most other hazards.







Key Characteristics

Flowers white to pinkish or purplish
Plant woolly at base
Leaves entire, spatulate to ovate
Annual*

Eatonella nivea (White Eatonella)

Family: Asteraceae (Composite)

Status: Monitor species on the State Sensitive Plant List

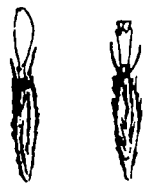
Known Locations: Custer, Elmore, Owyhee Counties, Idaho
Harney, Malheur Counties, Oregon
Elko County, Nevada

Idaho
T2S, R3W, Sec. 17 NE 4 miles NE of Reynolds off Upper Reynolds Crk Road
T3S, R1E, Sec. 7 Sinker Creek, E of Otter Massacre site
T3S, R1E, section number not known
T4S, R11E, Sec. 31 Walker Reservoir, NE of Glenn's Ferry
T6S, R6E, Sec. 16,21 NW Waterhouse Gulch vicinity, E and NE of Bruneau
T8S, R6E, Sec. 16,21 NW SW of Indian Bathtub
T15S, R4W, Sec. 22 NESE South Fork Owyhee River, Coyote Hole vicinity
T12N, R19E, Sec. 28 Malm Gulch, 12 miles S of Challis
4 miles S of Challis on steep gravel; 1947 collection

Soil Type: Dry, sandy or volcanic areas as low as 2,500 feet

Habitat and Ecology: A small woolly annual that frequently forms small tufts. Grows on barren ground usually surrounded by sagebrush, from 2,500-4,200 feet. It occurs in the same soil type as the sensitive species Peteria thompsonae. Not well collected or abundant. It may be sensitive to spring trampling. Blooms from May to July.

Threats: Off-road vehicles and grazing



Key Characteristics

Depressed white-woolly annual*
Flower rays yellow or purplish
Branches from the base forming small tufts
Leaves numerous, oblanceolate to spatulate

Epipactis gigantea (Giant Helleborine)

Family: Orchidaceae (Orchid)

Status: Priority 2 on the State Sensitive Plant List

Known Locations: Boise, Bonner, Boundary, Clark, Elmore, Idaho, Jerome, Owyhee, Twin Falls Counties, Idaho
Uncommon in most of the Western states to the Rocky Mtns.

Idaho
T5N, R7E, Sec. 24 Middle Fork Boise River
T6N, R5E, Sec. 33 S of Idaho City
T6N, R11E, Sec. 35 near Atlanta
T8N, R5E, Sec. 1,8,10 NESE South Fork Payette River
T17N, R14E, Sec. 22 Middle Fork Salmon River
T18N, R21E, Sec. 12
T25N, R1E, Sec. 11
T6S, R5E, Sec. 24 Bruneau
Murtaugh section of the Snake River
Vineyard Lake

Soil Type: Streambanks and springs, often on calcareous sites

Habitat and Ecology: A rhizomatous orchid with one to many stems. It is restricted to streambanks, springs, and seepage areas, near thermal or cold water, often in otherwise desert regions. Often grows with monkey flowers, spike rushes, and sedges. The plant still has a broad range, but because of its vulnerable habitat, it is rapidly disappearing. Blooms from April to July.

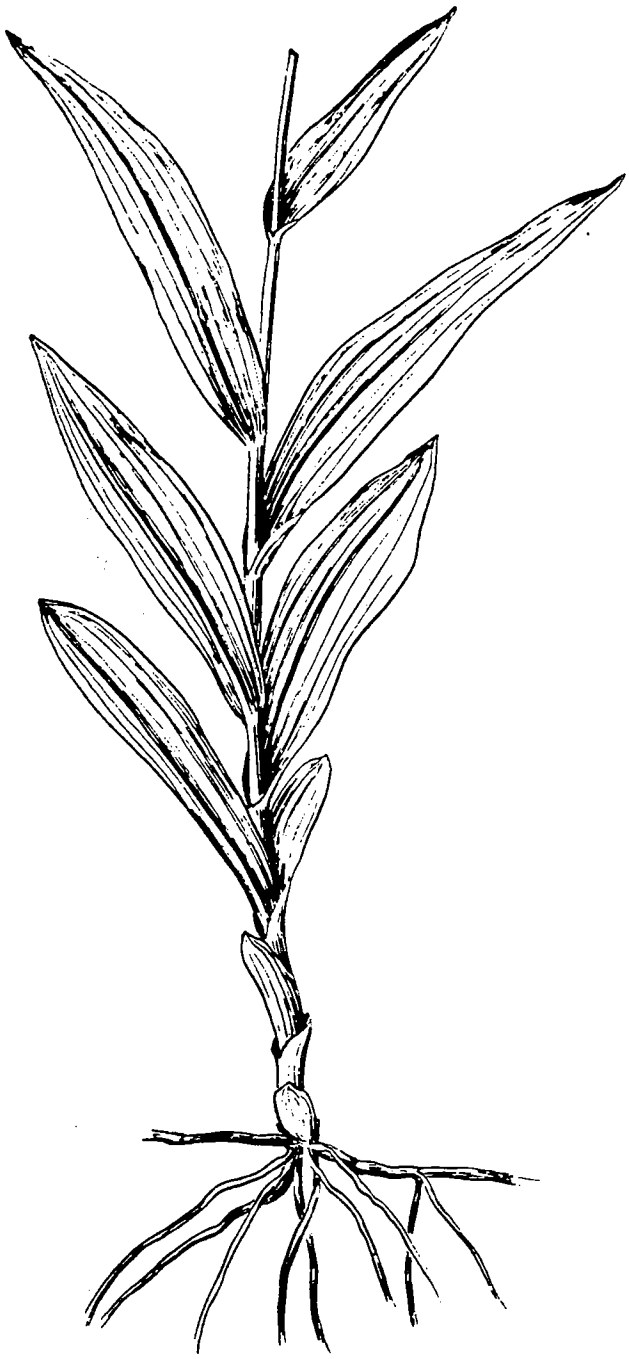
Threats: Development and human disturbance of cold and hot springs, livestock grazing

Key Characteristics

Flowers brownish-purple
Plants up to 3 feet tall
Leaves numerous, elliptical, broad

Epipactis gigantea

Giant Helleborine



Erigeron latus (Broad Fleabane)

Family: Asteraceae (Composite)

Status: Federal Category II (C2) and Sensitive on the BLM and State Sensitive Plant Lists

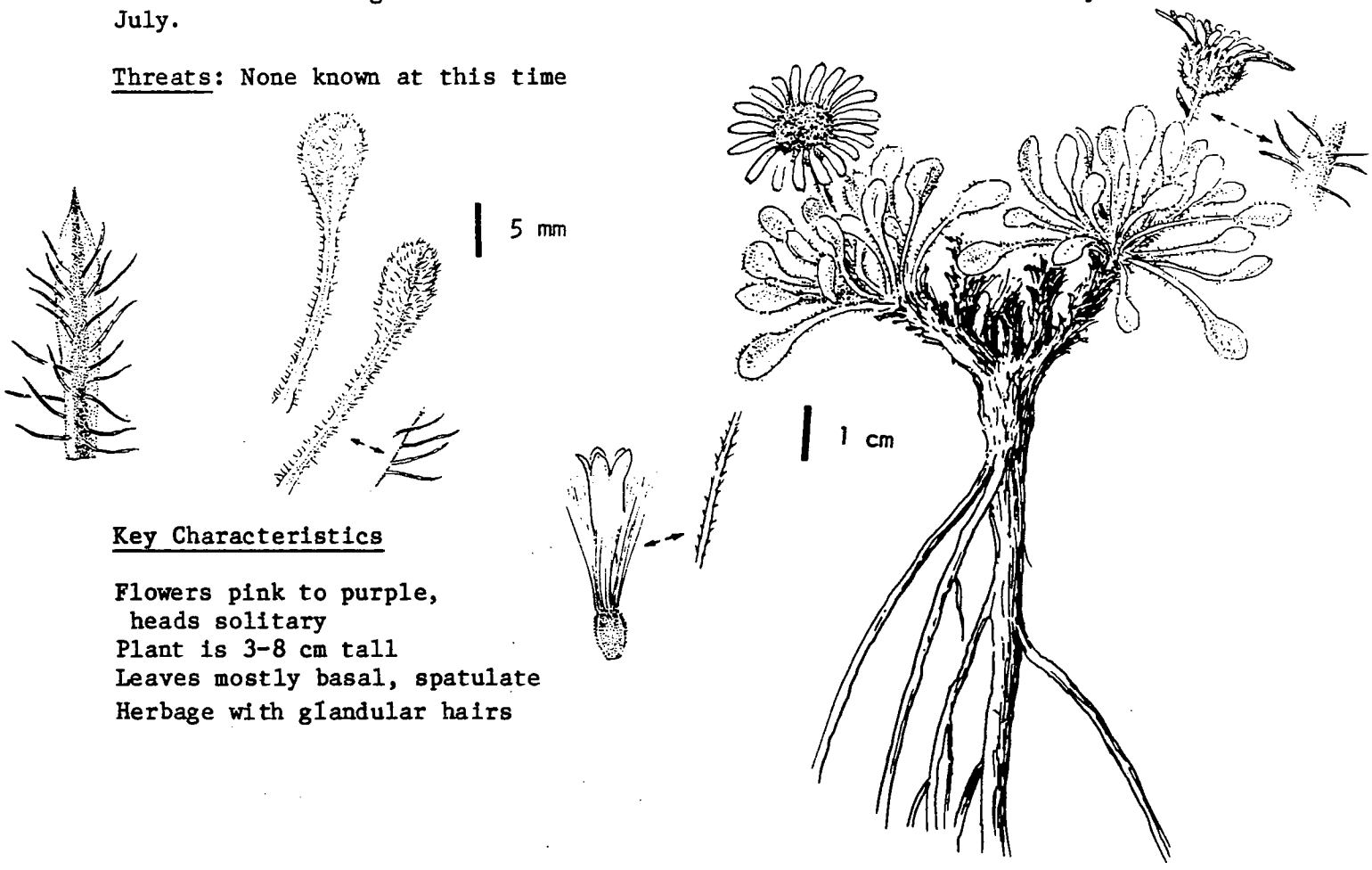
Known Locations: Cassia, Owyhee, Twin Falls Counties, Idaho
Elko County, Nevada

Idaho
T10S, R2W, Sec. 4,6 1946 record; 2 miles SW of Mudflat, on Juniper Mtn. road
T10S, R4W, Sec. 20 SE,21 North Fork Pleasant Valley Creek
T12S, R3W, Sec. 15 one mile N of Pleasant Valley Creek
T12S, R4W, Sec. 20(?) NE of Red Rock Canyon
T13S, R3W, Sec. 15,22 SWSW & NWNW,27,28 E1/2 of NE1/4,33 between Brace Ranch and the Owyhee River
T15S, R11E, Sec. 34 Three Creeks, 30 miles WNW of Riddle
T15S, R12E, Sec. 11 (or adjacent sections) 1949 record
5 miles S of Mudflat
10 miles S of Albion on Mt. Harrison (taxonomy questionable)

Soil Type: On volcanic sands and reddish rhyolitic gravels

Habitat and Ecology: A perennial found in barren places on soils of volcanic origin, usually surrounded by Wyoming big sage and rock outcrops. Associated species include Haplopappus acaulis, a variety of Eriogonums, and sometimes juniper. This plant is easily confused with other species of Erigeron, particularly E. disparipilus and E. nanus. May be more widespread than was once thought. More collections are needed. Blooms from May to July.

Threats: None known at this time



Key Characteristics

Flowers pink to purple, heads solitary
Plant is 3-8 cm tall
Leaves mostly basal, spatulate
Herbage with glandular hairs

Eriogonum salicornoides (Annual Salt Eriogonum)

Family: Polygonaceae (Buckwheat)

Status: Review species on the State Sensitive Plant List

Known Locations: Owhyee County, Idaho
Malheur County, Oregon

Idaho

T1N, R5W, Sec. 21 6 miles NE of ID/OR line, E of Jump Creek
T1N, R24E, Sec. 3 Craters of the Moon National Monument
T3N, R5W, Sec. 4,8 Succor Creek, W side of Homedale
T5N, R3W, Sec. 17 8 miles N of Middleton
T1S, R5W, Sec. 28,30 23 miles S of Marsing
T1S, R6W, Sec. 36 3.5 miles NE of Oregon line
T1S, R18E, Sec. 18 N of Magic Reservoir, off Hwy 68
T2S, R2W, Sec. 10 4 miles N of Murphy
T2S, R3W, Sec. 2 Upper Reynold's Creek
T2S, R4W, Sec. 23 NE 5 miles N of Reynolds, Macks Creek Rd
T2S, R6W, Sec. 11 29 miles SW of Marsing, one mile from ID/OR border
T4S, R1E, Sec. 5,10 3 miles N of Oreana
T4S, R2E, Sec. 25,30 19 miles SE of Murphy and 1.5 miles SE of Castle Crk
T5S, R1W, Sec. 8 Hart Creek Canyon
T5S, R1E, Sec. 11 E of Oreana
T5S, R3E, Sec. 22 1/2 mile SE of Grandview
T5S, R6E, Sec. 29 13.5 miles S of Mountain Home, 1.5 miles N of Snake River
T6S, R5E, Sec. 24 Bruneau area
T6S, R6E, Sec. 10,8 2-6 miles N of Bruneau
T15S, R5W, Sec. 28 Blackstock Creek

Soil Type: Loose, white, ashy clay soil

Habitat and Ecology: An annual buckwheat endemic to SW Idaho and adjacent Oregon. It grows on bare, alkaline soils from 2,600-4,200 feet in shadscale-budsage and Wyoming big sage habitat. The plant is poorly collected and more information is needed. It is very similar to E. vimineum. Blooms April and May.

Threats: Mining, off-road vehicles

Key Characteristics

Annual*
Tiny yellow flowers

Eriogonum shockleyi var. shockleyi (Matted Cowpie Buckwheat)

Family: Polygonaceae (Buckwheat)

Status: Sensitive on the BLM and State Sensitive Plant Lists

Known Locations: Ada, Owyhee Counties, Idaho

T1S, R1W, Sec. 28 SESE,32 NWNW,35 SENE E of Halverson Lake & N of Swan Falls Dam
T5S, R5E, Sec. 14 N of CJ Strike Wildlife Management Area
T6S, R5E, Sec. 35 SE 2 miles SW of Bruneau
T6S, R6E, Sec. 18,26 one mile N of Bruneau; just S of Bruneau Sand Dunes State Park, respectively
T6S, R9E, Sec. 8 SSE of Schoffs Island in the Snake River
T7S, R3E, Sec. 4 SENW,5 Shoofly Creek, 10 miles S of Grandview
T7S, R5E, Sec. 1,2,20 S of Bruneau
T7S, R6E, Sec. 17 SWSW,18,19 NENE,20 NWNW Sugar Valley Badlands, 3 miles SW of Hot Spring

Soil Type: On gravel benches in lake sediments

Habitat and Ecology: A perennial, mat-forming buckwheat of low elevations from 2,600 to 3,100 feet. In Wyoming big sage-rabbitbrush-Indian ricegrass habitat. Grows on wind-swept buttes of lake sediments where flat benches have formed that are covered with round, smooth gravel. This species is poorly defined taxonomically. More collections should be made. Blooms from May to July.

Threats: None known at this time

Key Characteristics

Flowers creamy white
Matted, compact growth form
Leaves small, with whitish cast

Glyptopleura marginata (White-Margined Wax Plant)

Family: Asteraceae (Composite)

Status: Priority 1 on the State Sensitive Plant List

Known Locations: Ada, Canyon, Owyhee, Twin Falls Counties, Idaho
Harney, Malheur Counties, Oregon
uncommon in California, Nevada, Utah

Idaho

T2S, R1W, Sec. 9 NW 3 miles E of Guffey Butte, N of Murphy
T2S, R2W, Sec. 15 1938 record
T2S, R2E, Sec. 2 1951 record, 12 miles S of Regina
T3S, R2W, Sec. 22 1953 record, 5 miles S of Murphy

T4S, R1E, Sec. 33 near Foremans Reservoir, 14 miles W of Grand View
T7S, R6E, Sec. 34 SW of Bruneau Hot Spring
T7S, R5E, Sec. 20 8 miles SW of Bruneau
T7S, R3E, Sec. 4 11 miles S of Grand View
T7S, R2E, Sec. 14 1943 record, 15 miles SW of Grand View
T8S, R5E, Sec. 18 1956 record, 13 miles S of Bruneau
T16S, R14E, Sec. 29 SENW Player Canyon area SW of Salmon Falls Creek Reservoir
T16S, R15E, Sec. 7 near Salmon Falls Creek Reservoir
T2N, R4W, Sec. 17 SW of Marsing

Soil Type: Dry, sandy places, sometimes in loose ash or in small basalt cinder

Habitat and Ecology: A dwarf, tufted winter annual with milky juice and a tap root. Grows in Atriplex-Artemisia habitat on warm, dry micro-sites barren of other vegetation, from 3,000-5,000 feet. This plant has a broad range but is highly infrequent in Idaho, with usually only a small number of individuals in those populations. Blooms from May to June, with flowers open in the morning, reputed to close in mid-afternoon.

Threats: Off-road vehicles, increased agricultural development, range improvement programs, and heavy recreational use in the Hot Springs area.

Key Characteristics

Flowers white or pale yellow,
drying to pink
Dwarf annual
Leaves crowded, pinnately lobed
or toothed with a white, waxy margin

Gymnosteris nudicaulis (Large-Flowered Gymnosteris)

Family: Polemoniaceae (Phlox)

Status: Sensitive on the BLM and State Sensitive Plant Lists

Known Locations: Blaine, Butte, Canyon, Elmore, Gem, Lincoln, Minidoka, Owyhee, Twin Falls Counties, Idaho
Malheur County, Oregon

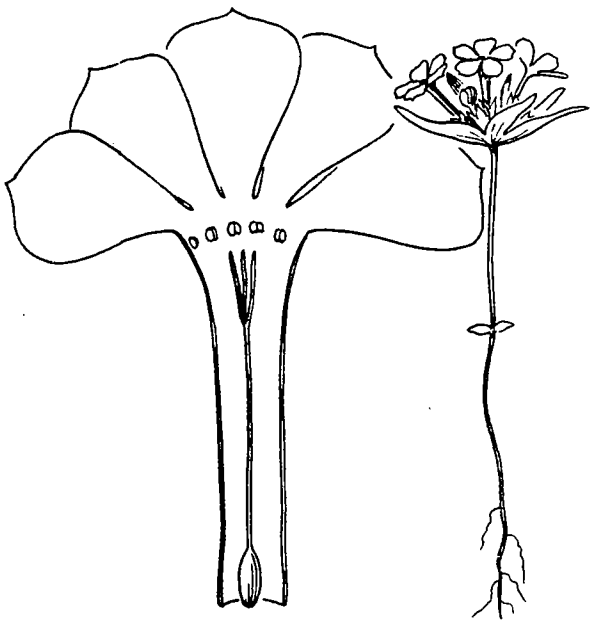
Idaho

T1S, R19E, Sec. ? E of Magic Reservoir
T3S, R20E, Sec. 7 NE of Shoshone
T3S, R24E, Sec. 21 SWNE NE of Shoshone
T5S, R8E, Sec. 23,24 N of Hammett
T5S, R9E, Sec. 30 SENW,32 NE NE of Hammett
T5S, R10E, Sec. 3 NE of Glenn's Ferry
T6S, R10E, Sec. 16 1940 record, S of Glenn's Ferry
T7S, R1E, Sec. 14 SW of Grandview
T7S, R12E, Sec. 14 W of Hagerman
T7S, R13E, Sec. 25 S of Hagerman
T7S, R15E, Sec. 33 near Wendell
T8S, R8E, Sec. 18 SE of Hot Spring
T10S, R12E, Sec. 14 1950 record, 3 miles W of Balanced Rock
T1N, R5W, Sec. 7 SESW Sands Basin vicinity SW of Jump Creek
T1N, R30E, Sec. 18 NW
T3N, R29E, Sec. 32 SE
T4N, R3W, Sec. 10,15 1934 and 1938 records, near Caldwell
T7N, R1W, Sec. 19 1937 record, N of Emmett
T8N, R4W, Sec. 33 1911 record, N of Plymouth

Soil Type: Sandy to sandy loam, often on volcanic rock

Habitat and Ecology: A weak-stemmed annual that grows in somewhat open, sandy areas in the Basin big sage-grassland zone. Found from 2,700-5,000 feet. The plant was collected much more frequently in the early to mid-1900s than in the past 15 years. It was once noted as common but is now rarely seen.
Blooms from April to June.

Threats: Agricultural development, range improvement programs, competition with cheatgrass



Key Characteristics

Flowers showy, vary from white to yellow to lavender
Short naked stem
Whorl of entire leaves just beneath the flower cluster

Gymnosteris parvula (Small-Flowered Gymnosteris)

Family: Polemoniaceae (Phlox)

Status: Review species on the State Sensitive Plant List

Known Locations: Blaine, Lincoln, Owyhee Counties, Idaho
Colorado, Oregon, Wyoming, Northern California

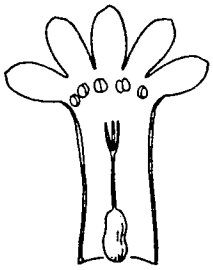
Idaho

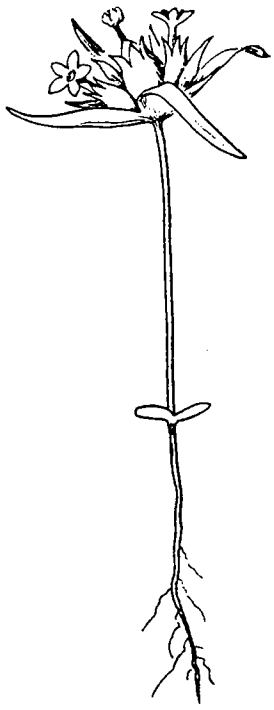
T3S, R16E, Sec. 9 NE,16 NE Eastern Bennett Hills, NW of Twin Oaks Reservoir
T9S, R1E, Sec. 13 NE E of Battle Creek, 30 miles S of Grandview
T10S, R4W, Sec. 1,20 Nickel Creek Table and Pleasant Valley
Alturas Lake
T10S, R8E, Sec. 15 Winter Camp, East Fork Bruneau River

Soil Type: Shallow, loamy to somewhat cindery or sandy soils

Habitat and Ecology: An annual of open, dry to moderately moist slopes, flats, and drier meadows. Up to high elevations (above 8,000 feet) in California. In Idaho it frequently grows under the protective branches of Basin big sage. Also associated with bluebunch wheatgrass and Sandberg bluegrass at 5,400 to 5,900 feet. More information is needed on this species. Blooms in May and June.

Threats: Trampling by grazing, agricultural development, off-road vehicles, competition with cheatgrass





Key Characteristics

Small annual
Flowers inconspicuous, white to pale yellow or purplish
Whorl of leaves below the flower cluster

Hackelia ophiobia (Rattlesnake Stickseed)

Family: Boraginaceae (Borage)

Status: Federal Category 3C and Sensitive on the BLM and State Sensitive Plant Lists

Known Locations: Owyhee County, Idaho
Malheur County, Oregon
Elko, Humboldt, Washoe Counties, Nevada

Idaho
T10S, R3W, Deep Creek, SE of Jordan Valley
T13S, R2W, Sec. 5 Deep Creek
T13S, R3W, Sec. 25 Deep Creek off the Owyhee River
T14S, R5W, Sec. 11 NE South Fork Owyhee River
T16S, R5W, Sec. 16 SW Little Owyhee River, 3 miles N of Nevada line
Upper East Fork of the Owhyee River

Soil Type: Talus and crevices of rhyolitic rock cliffs

Habitat and Ecology: A slender perennial found on north-facing, well-shaded sites of coarse rhyolitic bluffs and cliffs at 4,000-5,000 feet. Grows in crevices and especially at the base of cliffs, on sites generally barren of other vegetation. Sometimes found with another uncommon species, Artemisia packardiae. Associated vegetation surrounding these sites include basin big sage, Great Basin wild rye, and Louisiana sage. Always grows in areas far from human influences and a look at historic heavy grazing in some sections of the Owyhee River suggest that it may be sensitive to grazing. Blooms from April to June.

Threats: Destruction of habitat by stream water level fluctuation, grazing in the river canyons

Key Characteristics

Flowers blue with a yellow throat
Basal leaves broad, ovate, with a truncate base
Leaves with long petioles, 2-4 times as long as the blade
Shadey, mesic sites and microsites

Hackelia ophiobia Rattlesnake Stickseed

Haplopappus radiatus (Snake River Goldenweed)

Family: Asteraceae (Composite)

Status: Federal Category II (C2) recommended for Threatened status

Known Locations: Washington County, Idaho
Baker, Malheur Counties, Oregon (about 35 sites)

Idaho
T10N, R5W, Sec. 10 about 5 miles SE of Weiser
T11N, R5W, Sec. 3 1941 record, N of Weiser by Barton Reservoir
T11N, R5W, Sec. 33 (or adjacent sec) just E of Weiser
T11N, R3W, Sec. 33
T14N, R6W, Sec. 9,10 4th of July Meadow, 1.5 miles E of Mineral
T17N, R5W, Sec. 26 1952 record, S of Brownlee Dam Spillway
Nutmeg Mountain E of Weiser 1974 record, only a single plant sighted in '85

Soil Type: Gravelly loam

Habitat and Ecology: A perennial species found in skeletal gravelly loam soils and on steep rocky hillsides in basin big sage-bluebunch wheatgrass-arrowleaf balsamroot habitat. Also in Sandberg bluegrass communities dominated by annuals. Frequently plants are found with heavy insect predation, and appear very sensitive to it. It is told from the wider ranging H. carthamoides by its larger size, broader basal leaves, and the greater number of rays (about 34). Blooms from June to July.

Threats: Competition with exotic annuals, grazing, and wild fires

Key Characteristics

Yellow flowers, heads broad
Plants very robust
Basal leaves 5-20 cm wide
Leaves tough and leathery

Haplopappus radiatus

Snake River Goldenweed

Lepidium davisii (Davis Peppergrass)

Family: Brassicaceae (Mustard)

Status: Federal Category II (C2) recommended for Threatened status

Known Locations: Ada, Elmore, Owyhee, Twin Falls Counties, Idaho
Malheur County, Oregon

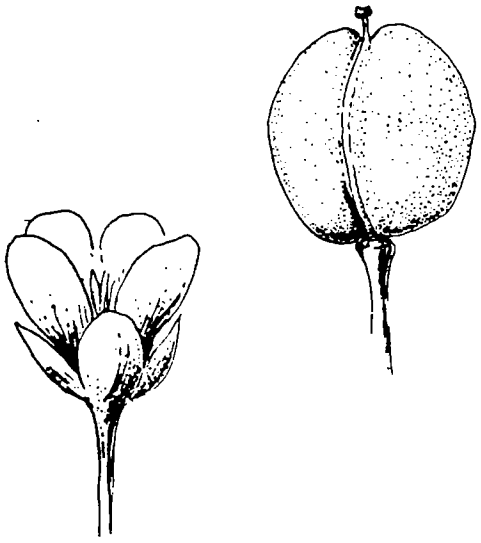
Idaho

see next page

Soil Type: Hard bottom playas

Habitat and Ecology: A caespitose perennial found only in very hard bottom playas that are usually barren of other vegetation. They are poorly drained and often inundated with standing water early in the spring. On rare occasions a few shadscale and silver sage plants may grow in the playas. Playas are located in Wyoming big sage-Fourwing saltbush-Sandberg bluegrass habitat at 2,900 to 5,000 feet. Populations vary in leaf shape, size, and time of flowering, and may be genetically distinct populations because of the plant's short-distance dispersal mechanism. Blooms from April to as late as August.

Threats: Water storage pond development, spring livestock trampling, off-road vehicles, military tanks, and some range rehabilitation projects



Key Characteristics

White, 4 petaled flowers
Fleshy entire to toothed to pinnately lobed leaves
Plant can become quite "woody"
Only found on playas

Lepidium davisii sites known as of November 3, 1987
(approx. 65 total)

T14S, R6E, Sec. 2 E1/2,22 SESE,23 SESW

T14S, R15E, Sec. 23 NWNE,31 SE,32 SW

T13S, R46E, Sec. 2, 3

T13S, R6E, Sec. 3,18,22 NW,23 NW,27

T12S, R7E, Sec. 6 SE,18 SW
T12S, R6E, Sec. 13 SE

T11S, R6E, Sec. 2 SENW,22 SE

T10S, R7E, Sec. 33 SENW

T10S, R6E, Sec. 11 NW & NE,22 SWSW

T10S, R5E, Sec. 23 NW

T10S, R4E, Sec. 9 SWSE,17 SESE,21

T5S, R6E, Sec. 9,17,19,21

T5S, R5E, Sec. 6

T4S, R6E, Sec. 9, 29

T4S, R5E, Sec. 1, 2, 6, 17, 18, 31

T4S, R4E, Sec. 2, 3, 4, 5, 6, 7, 8, 13, 16, 17, 18, 19, 21, 22, 27,
(playa in Sec. 4 overlaps into Sec. 9)

T4S, R3E, Sec. 1, 12

T3S, R5E, Sec. 20, 35

T3S, R4E, Sec. 28, 31, 33, 36

T3S, R3E, Sec. 23 NWSE,27

T3S, R2E, Sec. 11 NE,21 SESE,31 NENE

T2S, R2E, Sec. 11 SESE

Lepidium montanum var. papilliferum (Montane Peppergrass)

Family: Brassicaceae (Mustard)

Status: Priority 1 on the State Sensitive Plant List

Known Locations: Ada, Canyon, Elmore, Gem, Payette Counties, Idaho

*T1S, R4E, Sec. 14 NWNW 1987 record, jct. of freeway and Simco Road
T3S, R6E, Sec. 23 (or 26,35) 1934 record, Mountain Home
T5S, R6E, Sec. 9 1940 record, S of Mountain Home
T5S, R7E, Sec. 24 1947 record, W of Hammett
T5S, R9E, Sec. 18 1940 record, N of Hammett
T2N, R1W, Sec. 24 1955 record, 7 miles S of Meridian
T3N, R2W, Sec. 23 1897 record, Nampa
T3N, R2E, Sec. 2 E1/2 of SW1/4, 12 1972 record, Boise foothills
T3N, R3E, Sec. 20 1953 record, SE of Table Rock
T4N, R1E, Sec. 13 1934 record, N of Garden City
T4N, R3E, Sec. 10 1936 record, near Boise Peak
*T5N, R3W, Sec. 6 1974 record, Sand Hollow SW of Emmett
T5N, R5W, Sec. 10 1938 record, just E of Parma
T6N, R2W, Sec. 8 1947 record, 4 miles W of Emmett
T7N, R1W, Sec. 19 1911 record, 3 miles N of Emmett
T8N, R4W, Sec. 33 1910 record, near New Plymouth
along the Boise River near Caldwell 1954 record
* = the only recent records

Soil Type: On bare, shallow natric sites

Habitat and Ecology: A perennial mustard of bare, shallow natric soil sites or tiny playas in the Wyoming big sage-grassland zone. The plant is probably extinct in some Idaho counties already, as most collections are historic and many of the old sites have been developed. Blooms May to June.

Threats: Land and agricultural developments, salt lick placement

Key Characteristics

Flowers white, 4 petals
Leaves pinnate
Stamen stalks bearded-
(distinguished from the more common variety by this)

Leptodactylon glabrum (Bruneau River Prickly Phlox)

Family: Polemoniaceae (Phlox)

Status: Federal Category II (C2) recommended for Threatened status

Known Locations: Owyhee County, Idaho
Pershing, Humboldt Counties, Nevada (3 sites)

Idaho
T10S, R7E, Sec. 35
T14S, R8E, Sec. 5 Cougar Creek on the Jarbidge River
T15S, R7E, Sec. 19 NE Starts here in the Bruneau River Canyon and goes intermittently for 30 miles downstream

Soil Type: Rhyolitic canyon walls, rock ledges and cliffs

Habitat and Ecology: A matted perennial that is always found on vertical or underhung rhyolitic canyon walls. Found along the Bruneau River from 2,800 to 4,800 feet. New growth comes out of last year's stalks. It is pollinated at night by a moth, and is intolerant of growing in seepage areas or ephemeral water paths in rock crevices.
Blooms from April to July.

Threats: A dam on the Bruneau River would be its only threat

Key Characteristics

White to cream colored flowers
Matted growth form that can be very large
Prickly, narrow leaves
Restricted habitat

Lupinus uncialis (Inch High Lupine)

Family: Fabaceae (Legume)

Status: Sensitive on the BLM and State Sensitive Plant Lists

Known Locations: Owyhee County, Idaho
Harney, Malheur Counties, Oregon
Elko, Humboldt Counties, Nevada

Idaho
T14S, R5W, Sec. 23 South Fork Owyhee River, below mouth of Little Owyhee R.
T15S, R4W, Sec. 19 NESE,21 NW,22 Coyote Hole
T16S, R4W, Sec. 13 South Fork Owyhee River in vicinity of Bull Camp

Soil Type: Barren loose rhyolitic cinder and gravel

Habitat and Ecology: A tiny desert annual that grows in barren rhyolitic cinder on level terraces in the sagebrush-grassland zone. From 3,100 feet in Oregon up to 5,600 feet in Idaho. It was first found in Idaho in 1981, and there are now three known sites. The plant appears to be more common in Nevada and Oregon than in Idaho. Blooms April to May.

Threats: Off-road vehicles, road building, and placement of salt licks

Key Characteristics

Tiny 1 inch tall annual with
white and purple flowers
Palmate leaves
Rhyolitic cinder habitat
Only one seed per capsule

Malacothrix glabrata (Desert Dandelion)

Family: Asteraceae (Composite)

Status: Sensitive on the BLM and State Sensitive Plant Lists

Known Locations: Canyon, Owyhee Counties, Idaho
Malheur County, Oregon
Arizona, California

Idaho

T2N, R3W Dautrick Memorial Property, S of Lake Lowell
T3S, R2W, Sec. 2 1963 record, 2 miles S of Murphy
T3S, R1E, Sec. 7,29,31 SE above Sinker Creek
T5S, R3E, Sec. 17 (or adjacent) 1951 record, W of Grand View
T5S, R11E, Sec. 7 1911 record, E of Glenn's Ferry
T6S, R6E, Sec. 11,32 1963 record, Bruneau Sand Dunes State Park and SE of Bruneau
T7S, R3E, Sec. 3 11 miles S of Grand View
T7S, R5E, Sec. 30 1956 record, about 7 miles SW of Bruneau

Soil Type: Barren sandy or ashy hills

Habitat and Ecology: An annual found on dry, somewhat barren sandy or ashy sites in gray rabbitbrush-Nama eretioides habitat, from 2,900-3,700 feet. The plant appears to be capable of storing water in its roots. It is occassionally found with several other uncommon plants. It is distinguished from the similar, common dandelion by its leafy stem and usually multiple heads. Stems are from 10-60 cm tall. Blooms May to June.

Threats: Off-road vehicles

Key Characteristics

Flowers yellow
Pinnately dissected leaves with linear lobes
Stems leafy at or near the base

Malacothrix torreyi (Torrey's Malacothrix)

Family: Asteraceae (Composite)

Status: Review species on the State Sensitive Plant List

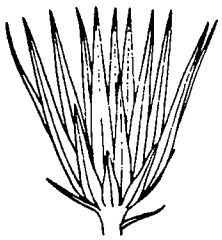
Known Locations: Canyon, Custer, Owyhee Counties, Idaho
Malheur, Harney Counties, Oregon
Arizona, Nevada, Southern Wyoming, S. Utah

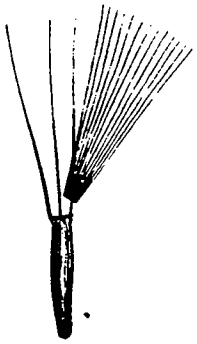
Idaho
T3N, R5W, Sec. 2 SENE behind Trueblood farm near Homedale
T14N, R18E, Sec. 3 NW of Challis
T2S, R3W, Sec. 29 NW near Reynolds Creek
T3S, R1E, Sec. 25 along Snake River below Wild Horse Butte
T7S, R2E, Sec. 23 SE near Perjue Canyon S of Grandview
T16S, R4W, Sec. 13 Bull Camp

Soil Type: Reports vary from sandy to gravelly on top of lacustrine to clay ash soils

Habitat and Ecology: An annual known from dry desert areas, occasionally growing with bud sage. In Utah it is found in the salt desert shrub community. In Idaho it has been collected from 2,600 up to 5,800 feet, but still within the salt desert shrub community. The plant has a wide range but is infrequent throughout. It is usually from 10-30 centimeters tall, and the leaf shape distinguishes it from the preceding Malacothrix glabrata. Blooms May and June.

Threats: Range improvement projects, off-road vehicles





Key Characteristics

Annual
Flowers yellow
Pinnately dissected leaves
with irregularly toothed lobes

Mentzelia mollis (Smooth Stickleaf)

Family: Loasaceae (Blazing Star)

Status: Federal Category II (C2) recommended for Endangered status

Known Locations: Owyhee County, Idaho
Malheur County, Oregon (4 sites)

Idaho
T1S, R5W, Sec. 4,20 1959 record, about 15 miles W of Walter's Ferry
T1S, R5W, Sec. 9 NW,19 center,31 N1/2 about 15 miles W of Walter's Ferry
T1S, R5W, Sec. 34 1946 record, between Squaw and McBride Creeks
T2S, R5W, Sec. 36 W of Reynolds
T3S, R5W, Sec. ?
Jump Creek, 6 miles NE of the ID-OR border, approximately T1N, R5W

Soil Type: Green, brown, white, or grey volcanic ash derived from the Succor Creek Formation

Habitat and Ecology: A low annual that is highly selective in its soil-type preference and habitat requirements and has a very narrow range (30 x 15 miles). Elevations for the sites are 4,200-4,600 feet in the Wyoming big sage-Shadscale zone. Associated species on the barren sites are few and include povertyweed, Phacelia lutea, and sometimes Chaenactis cusickii (another sensitive species). Even though it is an annual, continued destruction of its required habitat has resulted in a marked decline in population size. Blooms May and June.

Threats: Off-road vehicle activities and range improvement programs (several sites already disturbed by these activities)

Key Characteristics

Petals narrowly ovate, bright yellow flowers
Plant 5-12 cm tall
Leaves entire, oblanceolate
Volcanic ash endemic
Annual

Mentzelia torreyi var. acerosa (Torrey's Blazing Star)

Family: Loasaceae (Blazing Star)

Status: Priority one on the State Sensitive Plant List

Known Locations: Ada, Elmore, Gooding, Owyhee, Twin Falls Counties, Idaho
Mono County, California
Nevada

Idaho
T2S, R1E, Sec. 17 1946 record, Snake River Canyon
T5S, R12E, Sec. 6 SW 8 miles E of King's Hill
T6S, R3E, Sec. 27 1946 record, 5 miles S of Grandview
T6S, R5E, Sec. 33 1956 record, Sugar Creek, SW of Bruneau
T6S, R11E, Sec. 7 NE,22 SW of Bliss
T6S, R13E, Sec. 33 NE on Snake River, across from mouth of Malad River
T7S, R3E, Sec. 4 SENW,5 10 miles S of Grandview
T7S, R6E, Sec. 3,26,34,36 NE of Indian Bathtub ?
T8S, R5E, Sec. 19 1971 record, about 10 miles SW of Bruneau
T8S, R6E, Sec. 3,9 1947 record, Indian Bathtub area
T8S, R13E, Sec. 10 SENW near Thousand Springs
T8S, R14E, Sec. 29 SENW,32 1949 record, several miles W of Buhl
T9S, R5E, Sec. 5 1964 record, 17 miles S of Bruneau
T9S, R14E, Sec. 10 near mouth of Mud Creek
T9S, R15E, Sec. ? Snake River Canyon, 10 miles NW of Filer
area below the Bliss Dam
Guffey Butte
several sites along Salmon Falls Creek

Soil Type: Barren sandy lacustrine soil or volcanic cinder

Habitat and Ecology: A caespitose perennial of barren sandy or volcanic soils from 2,900-3,500 feet in Idaho. It is typically found in the Wyoming big sage-grassland zone or shadscale zone, and often grows with shadscale, Nama sp., and white-stemmed blazing star. Southern Idaho is the northern limit of its range. In late summer and fall the plant is still easily recognized and often breaks loose, blowing around like a very small tumbleweed. Blooms May and June.

Threats: Off-road vehicles,
increased agricultural
development

Key Characteristics

Branched spiny white
pubescent stems and
leaves
Flowers orange

Nemacladus rigidus (Rigid Thread-Stem)

Family: Campanulaceae

Status: Monitor species on the State Sensitive Plant List

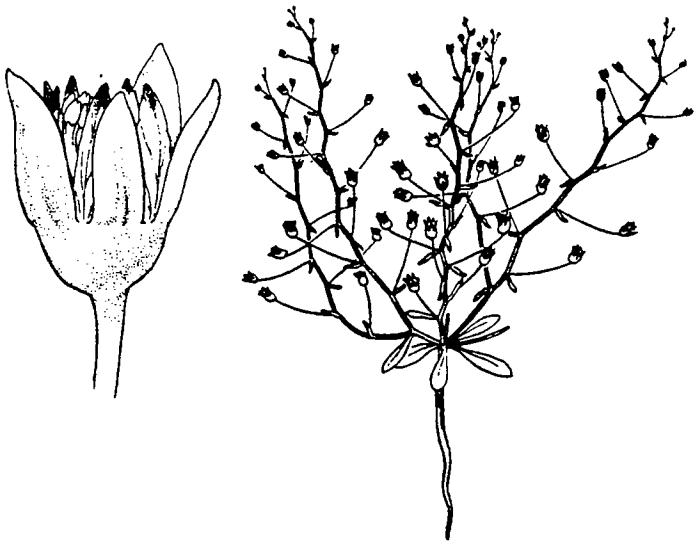
Known Locations: Owyhee County, Idaho
Harney, Malheur Counties, Oregon
NE California, N Nevada

Idaho
T2S, R3W, Sec. 32 SE 10 miles W of Murphy, 1.5 miles E of Reynolds

Soil Type: Loose, sandy, cindery or ashy outcrops, cracks in basalt, or in dried mud

Habitat and Ecology: An exceedingly infrequent annual, known to have been collected only twice in Idaho. Known from the shadscale-sagebrush zone, the plant has been collected at 3,700 feet in Oregon up to 6,500 feet in California. Annuals are unpredictble in their occurrence, making them difficult to inventory or monitor. This species should be watched for and its sites protected from all hazards. Blooms May to June.

Threats: Off-road vehicles, range improvement programs



Key Characteristics

Compact annual to 10 cm tall
Herbage dark greenish-purple or
brownish-purple
Stems spreading, often multi-branched
Flowers white, inconspicuous

Pediocactus simpsonii var. robustior (Simpson's Hedgehog Cactus)

Family: Cactaceae (Cactus)

Status: Sensitive on the BLM and State Sensitive Plant Lists

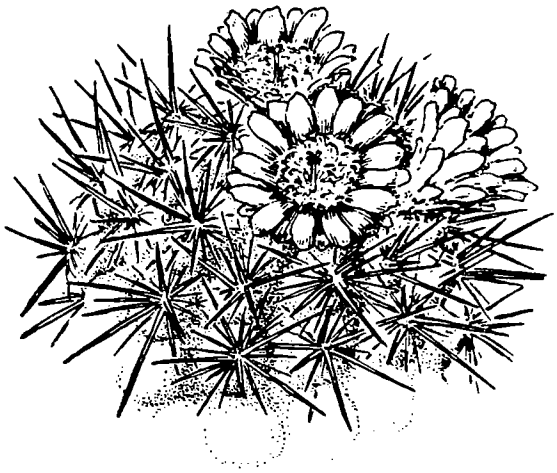
Known Locations: Cassia, Idaho, Nez Perce, Owyhee Counties, Idaho
Colorado, Nevada, Utah, Wyoming

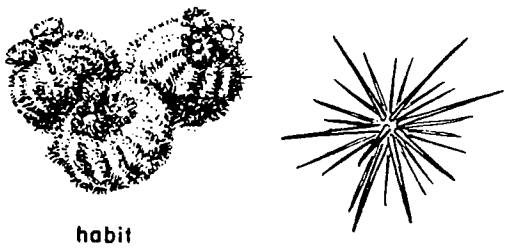
Idaho
T2S, R3W, Sec. 16 NE N of Reynolds
T8S, R1E, Sec. 23,24,13 West Fork Shoofly Creek
T8S, R2E, Sec. 2,28,36 East Fork Shoofly Creek
T8S, R3E, Sec. 27,31,35 John's Pasture, Little Jack's Creek
T9S, R2E, Sec. 1 Little Jack's Creek
T10S, R4E, Sec. 4 S1/2,9 Wickahoney Creek
T12S, R5W, Sec. 31,32 W of Grasmere
T13S, R5W, Sec. 6 W of Red Canyon
Reynolds Creek, half-way up
Juniper Mountain, SE and E of Red Canyon
near City of Rocks, SE Idaho

Soil Type: Dry rocky or sandy soil

Habitat and Ecology: Grows on benches and canyon rims on rocky or sandy soil. Associated with low sage, bud sage, Sandberg bluegrass, and Erigeron bloomeri. This cactus variety is relatively widespread in southern Idaho, and even though it is somewhat protected by its habitat, it may be exploited by cactus collectors.

Threats: Commercial collectors





habit

Key Characteristics

Only barrel cactus in S. Idaho
Pink flowers

Peraphyllum ramosissimum (Squaw Apple)

Family: Rosaceae (Rose)

Status: Sensitive on the BLM and State Sensitive Plant Lists

Known Locations: Washington County, Idaho
Nye County, Nevada
Baker, Grant, Malheur Counties, Oregon
California, S Utah

Idaho
T11N, R4W, Sec. 13 SWSW,24 NW 12 miles E of Weiser
T13N, R5W, Sec. 14 SE,23 NE,25 NE,35 near Sage Creek, 15 miles NE of Weiser
T14N, R5W, Sec. 33 1938 record
T15N, R5W, Sec. 33 1938 record S of Sturgill Peak and about 10 miles E of Brownlee Reservoir
Mann Creek, toward headwaters N of Weiser, historic record

Soil Type: Clayey silt of volcanic origin

Habitat and Ecology: A shrub of dry slopes, either brushy or open, in the sagebrush-grassland and mountain brush zones. This is a browse species highly selected for by both livestock and wildlife. Livestock over-browsing and trampling of seedlings may be a threat to the remaining isolated Idaho populations. The plant is fairly abundant in one drainage on the Oregon side of the Snake River. Its limited occurrence on the Idaho side possibly illustrates dispersal problems within the species. Blooms May to June.

Threats: Over-grazing, particularly warm season grazing by livestock

Key Characteristics

Shrub
Flowers white to pink
Fruits fleshy, apple-like, small, red in color
Leaves alternate, entire or minutely serrate

Peteria thompsonae (Spine-Noded Milk-Vetch)

Family: Fabaceae (Legume)

Status: Federal Category 3C and Priority 2 on the State Sensitive Plant List

Known Locations: Owyhee County, Idaho
Arizona
Southern Nevada
Southern Utah

Idaho

T7S, R6E, Sec. 34 SWNESW just N of Indian Bathtub
T8S, R6E, Sec. 3,9 SW,21 NW Off Blackstone-Grasmere Road, near and S of Indian Bathtub
T8S, R5E, Sec. 18 1956 record, 13 miles S of Bruneau

Soil Type: Small, marble-sized volcanic cinder

Habitat and Ecology: A perennial disjunct of barren areas with thin cinder soils. At low elevations in Idaho from 2,600-3,200 feet. Found with purple sage, shadscale, and annual Eriogonums. Up to 5,800 feet in southern Utah, where it is found in the pinyon-juniper and mixed desert shrub communities. Our one Idaho population is apparently a small disjunct population. Blooms May to June.

Threats: Heavy recreational use of the nearby Indian Bathtub, off-road vehicles, and concentrated riparian grazing use of the adjacent area

Key Characteristics

Small, sharp spines at leaf bases
Flowers white to yellowish
Pods straight, flattened
Pods 1.5-3 inches long

Phacelia lutea var. calva (Malheur Yellow Phacelia)

Family: Hydrophyllaceae (Waterleaf)

Status: Sensitive on the BLM and State Sensitive Plant Lists

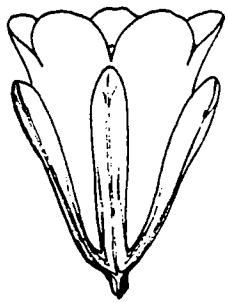
Known Locations: N Owyhee County, Idaho
NW Humboldt County, Nevada
E Malheur County, Oregon

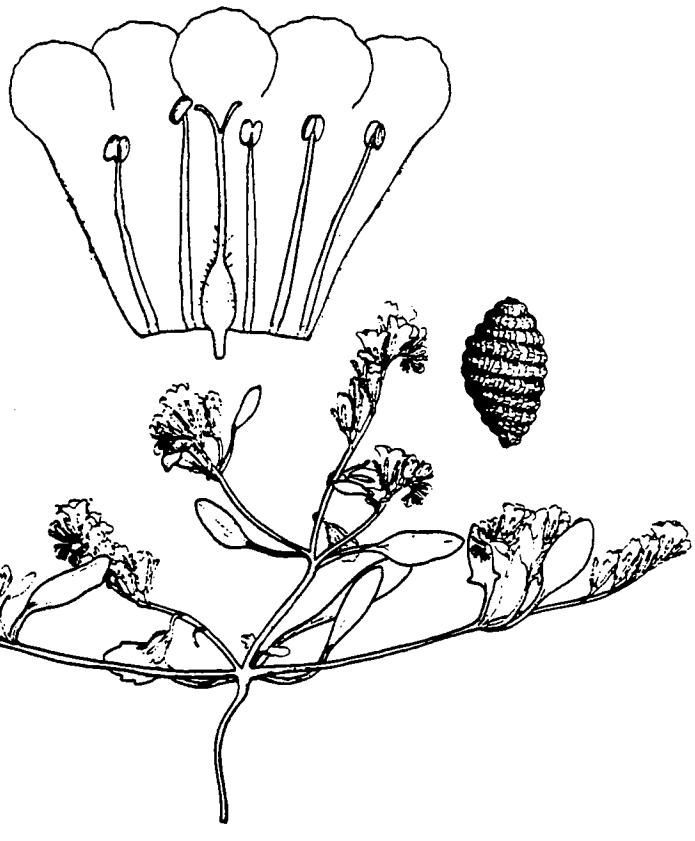
Idaho
T1S, R5W, Sec. 9 NW,19 center,28,30 about 21-25 miles SW of Marsing
T1S, R6W, Sec. 36 1959 record
T2S, R6W, Sec. 11,12 W of Hwy 95 along Dry Creek Rd, 1-2 miles from border
T3S, R6W, Sec. 14 Succor Creek
T15S, R5W, Sec. 28 Blackstone Spring
T1N, R4W, Sec. 13 W1/2,22,24 6-8 miles SW of Marsing
T2N, R5W, Sec. 27 Jump Creek Canyon, 8 miles SW of Marsing
T3N, R6W, Sec. 26,35 NE just E of the Oregon-Idaho border

Soil Type: Loose volcanic ash mixed with some clay

Habitat and Ecology: An annual that is freely branched at the base, laying prostrate and forming mats on the soil, sometimes up to 1.5 feet across. It is restricted to volcanic ash soils in the Wyoming big sage-Sandberg bluegrass-bluebunch wheatgrass or salt desert shrub zones. It frequently grows in monoculture because few plant species can grow in the unstable ashy soils. However, it has been found with Mentzelia mollis, another rare annual. This variety is difficult to separate from the others, which can grow intermixed in population sites. They may not be separate heterogenes, or varieties. More studies need to be done and specimens collected so that the species can be reevaluated. Blooms May to June.

Threats: Off-road vehicles, mining





Key Characteristics

Restricted to ash soils
Flowers yellow to orange, 5-7 mm long
Prostrate and sometimes mat-forming
This variety has glabrous herbage, or is glandular only in the inflorescence

Phacelia minutissima (Least Phacelia)

Family: Hydrophyllaceae (Waterleaf)

Status: Priority 2 on the State Sensitive Plant List

Known Locations: Camas, Owyhee Counties, Idaho
Elko County, Nevada
Wallowa Mountains, Oregon

Idaho
T4S, R3W, Sec. 7 SENW 1972 record, N of Slack Mountain on powerline road
Soldier Mountains, two sites, 1900 record

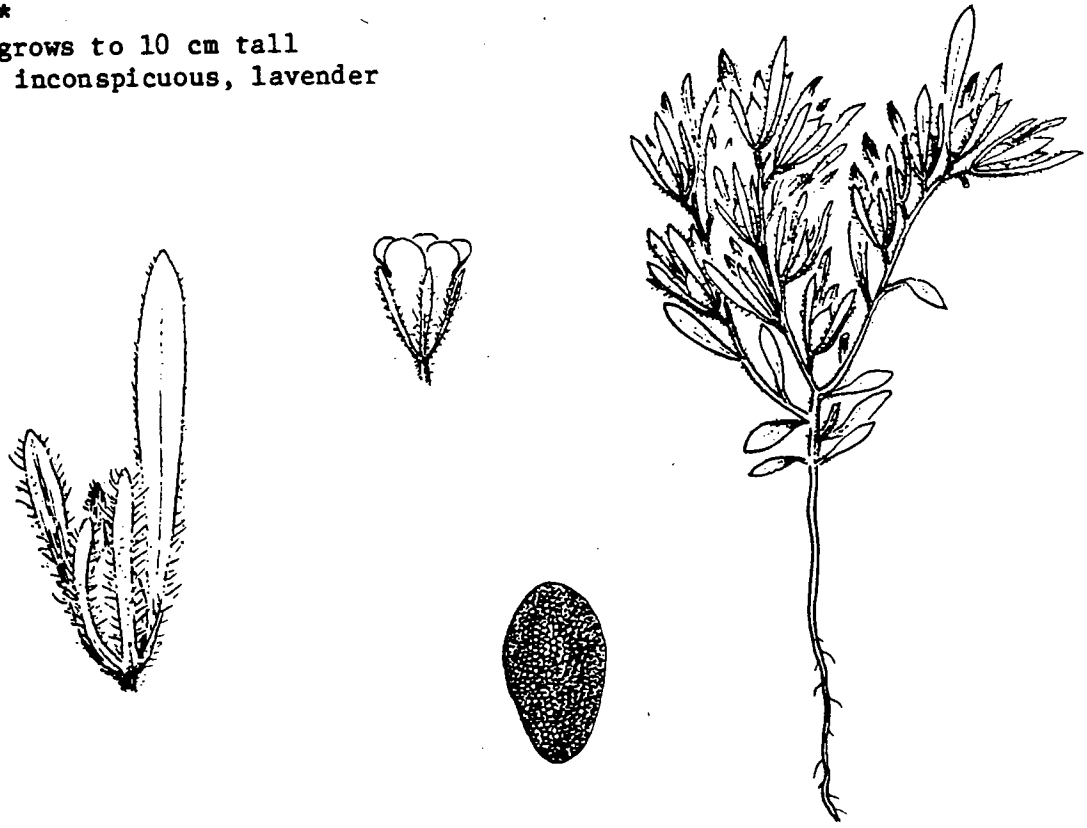
Soil Type: ? Moist sites

Habitat and Ecology: An annual of moist open places at middle elevations in the mountains. Reportedly found in mountain big sage-aspen communities, at 6,400 feet in the Owyhee Mountains. The plant is known from only four disjunct locations, two of those being in Idaho, where it hasn't been collected since 1972. The plant should be searched for, its habitat defined, mapped, and avoided by any projects that would disturb the vegetation. Blooms in July.

Threats: Uncertain

Key Characteristics

Annual*
Plant grows to 10 cm tall
Flower inconspicuous, lavender



Primula wilcoxiana (Wilcox's Primrose)

Family: Primulaceae (Primrose)

Status: Federal Category 3b and a Review species on the State Sensitive Plant List

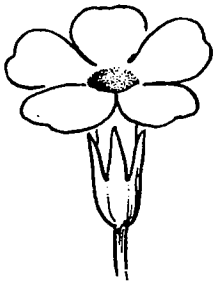
Known Locations: Ada, Boise, Elmore, Gem Counties, Idaho

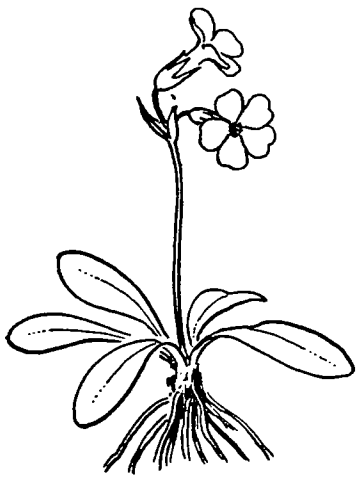
T1N, R6E, Sec. 11 Long Gulch Creek, 2.5 miles NW of Danskin Peak
T1N, R8E, Sec. 30 SWSW Granite Creek, along road to Smith Prairie
T2N, R7E, Sec. 7,8,11 NE,31 South Fork Boise River
T3N, R2E, Sec. 2 center at end of Eastway Street on N end of Boise
T3N, R4E, Sec. 21 Mouth of Mores Creek
T3N, R6E, Sec. 31 opposite Soap Creek, above the South Fork Boise River
T4N, R2E, sec. 14 west of center,15,36 NESW Boise foothills
T4N, R3E, Sec. 20 SWSW, 31 NESW Boise foothills
T5N, R2E, Sec. 24
T6N, R1W, Sec. 30 1-2 miles S of Emmett
T6N, R2W, Sec. 25 NESW near Emmett
T7N, R2E, Sec. 28 near Horseshoe Bend
T9N, R3E, Sec. ? 1/2 mile E of Banks on the South Fork Payette River
T1S, R6E, Sec. 3 Willow Creek, 5 miles SW of Danskin Peak
T1S, R11E, Sec. ? 3.3 miles S of the Hill City Store

Soil Type: Moist hillsides of loamy soils, often with clay

Habitat and Ecology: An early-blooming pernnial found on steep, north-facing slopes in the mountain big sage-Idaho fescue and bitterbrush-sagebrush zone. It frequently grows in snowdrift areas on mats of moss. Its leaves are very similar to those of the shooting star, which occupies the same habitat, and the two are difficult to tell apart without flowers. The taxonomy of this group has not been worked out. Primula cusickiana is very similar and the two species might be lumped in the future, in which case neither would be considered rare. A thorough search for new populations of this taxon is needed. Blooms March and April.

Threats: Heavy grazing in spring, increasing housing developments, off-road vehicles





Key Characteristics

Flowers bluish-violet to purplish
Leaves entire
Plants to 9 cm tall

Stipa webberi (Webber's Needlegrass)

Family: Poaceae (Grass)

Status: Monitor species on the State Sensitive Plant List

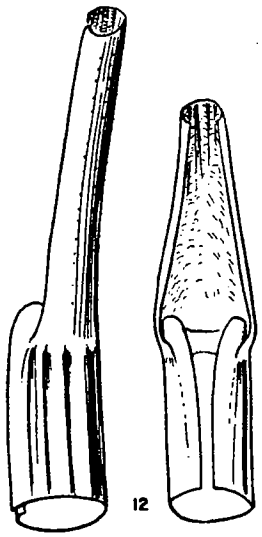
Known Locations: Blaine, Elmore, Gooding Counties, Idaho
E. California, Nevada, SE Oregon, one site in Colorado

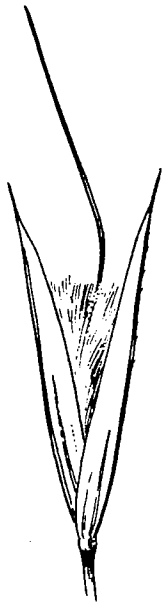
Idaho
T3S, R12E, Sec. 4 SE,7,9 Dempsey Creek area S of Hill City
T16S, R14E, Sec. 2 Salmon Falls Creek drainage
T1N, R21E, Sec. 13 NW
T1N, R23E, Sec. 2,3,34
East of Carey

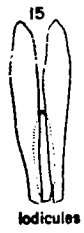
Soil Type: Shallow clay soils over basalt

Habitat and Ecology: A low, densely tufted perennial that occurs in both monoculture stands on fairly barren shallow clay soil and mixed within Eriogonum thymoides plant communities. These shallow sites dry up by late spring. The awn on this grass is deciduous, making its identification difficult. All sites visited in Idaho are at approximately 5,000 feet, and consist of small islands of populations, occurring in areas that are internally drained. The plant has been treated as an Oryzopsis in the past. Flowers from June to August.

Threats: Overgrazing or even moderate grazing may eliminate this palatable grass species







Key Characteristics

Low tufted perennial
Deciduous straight awn

Stylocline filaginea (Hooked Stylocline)

Family: Asteraceae (Composite)

Status: Monitor species on the State Sensitive Plant List

Known Locations: Blaine, Elmore, Lincoln, Owyhee, Washington Counties, Idaho
California, NE Nevada, SE Oregon

Idaho
T1S, R6W, Sec. 1 1.5 miles N of The Rocks Stage Station, S of Homedale
T1S, R4E, Sec. 9 1943 record, 2 miles S of Regina
T3S, R9E, Sec. 1 center Little Canyon, 22 miles N of Glenn's Ferry
T3S, R10E, Sec. 19 by Canyon Creek, 17.5 miles N of Glenn's Ferry
T3S, R11E, Sec. 3 SW E of King Hill Creek and S of Dear Heaven Mountain
T3S, R13E, Sec. 19 SE on rim of Clover Creek, 14 miles S of Hill City
T4S, R17E, Sec. 6 center near Tom Gooding Lake NW of Shoshone
T16S, R3E, Sec. 18 1951 record, 2 miles N of the ID/NV border
T1N, R7E, Sec. 24 NW 1900 record, S Fork Boise River, 8 miles S of Prairie
Weiser 1900 record
one mile NNE of Picabo

Soil Type: Shallow stony basalt with cindery gravel on the surface

Habitat and Ecology: A woolly annual of relatively barren sites of cinder over shallow basalt bedrock. The sites are level flats on terraces with little or no drainage, typically at mid-elevations from 4,100-5,000 feet. It was found in Weiser at 2,200 feet in 1900. Sites are commonly surrounded by Alkali sage (Artemisia longiloba), Owyhee sage (A. papposa), or stiff sage (A. rigida). The plant was collected in Eastern Oregon historically, but despite extensive survey work, it has not surfaced in recent years. More range data is needed. Blooms May and June.

Threats: Off-road vehicles, road building, and salt lick placement

Stylocline filaginea

S. psilocarphoides

Key Characteristics

Woolly annual
Seldom up to 10 cm tall
Male flower with hooked point

Texosporium sancti-jacobi (Texas-Spored Lichen)

Class: Ascomycytes (Fungi)

Status: A North American endemic lichen species of very limited distribution but with no official status

Known Locations: Ada County, Idaho
San Diego, San Benito Counties, California

Idaho
T1N, R2E, Sec. 28,33

Soil Type: Heavy clay soil

Habitat and Ecology: Grows on heavy clay microsites within the Wyoming big sage-Sandberg bluegrass zone, often associated with rabbitbrush. The known sites are currently dominated by rabbitbrush. The lichen appears to favor open areas with high light intensity. It is thought to be one of the few North American endemic lichens, as lichens are generally wide-ranging, and many are world-wide. This species occurs on only two sites in S. California, and is disjunct in Idaho. It grows on areas as small as one inch in diameter, which makes it difficult to locate. A specimen is kept in the Boise District herbarium and should be examined to assist in field identification. It is called the Texax-spored lichen because of its large-sized spores.

Key Characteristics

Green fruiting body with
white rims
Grows adnate to the soil
or over moss

Trifolium owyheense (Owyhee Clover)

Family: Fabaceae (Legume)

Status: Federal Category II (C2) listed as Priority 1 on the State Sensitive Plant List

Known Locations: Owyhee County, Idaho
Malheur County, Oregon

Idaho
T3S, R6W, Sec. 14 center Succor Creek, near the OR-ID border

Soil Type: Volcanic ash and tuff

Habitat and Ecology: A perennial clover on slopes of volcanic ash or loose diatomaceous earth. The surrounding plant community is typically Wyoming big sage-grassland, but the plant usually grows alone or with annuals. It has a restricted habitat and small range, occurring in Leslie Gulch, the Honeycombs, and Succor Creek, so it is primarily found in Oregon. Blooms May and June.

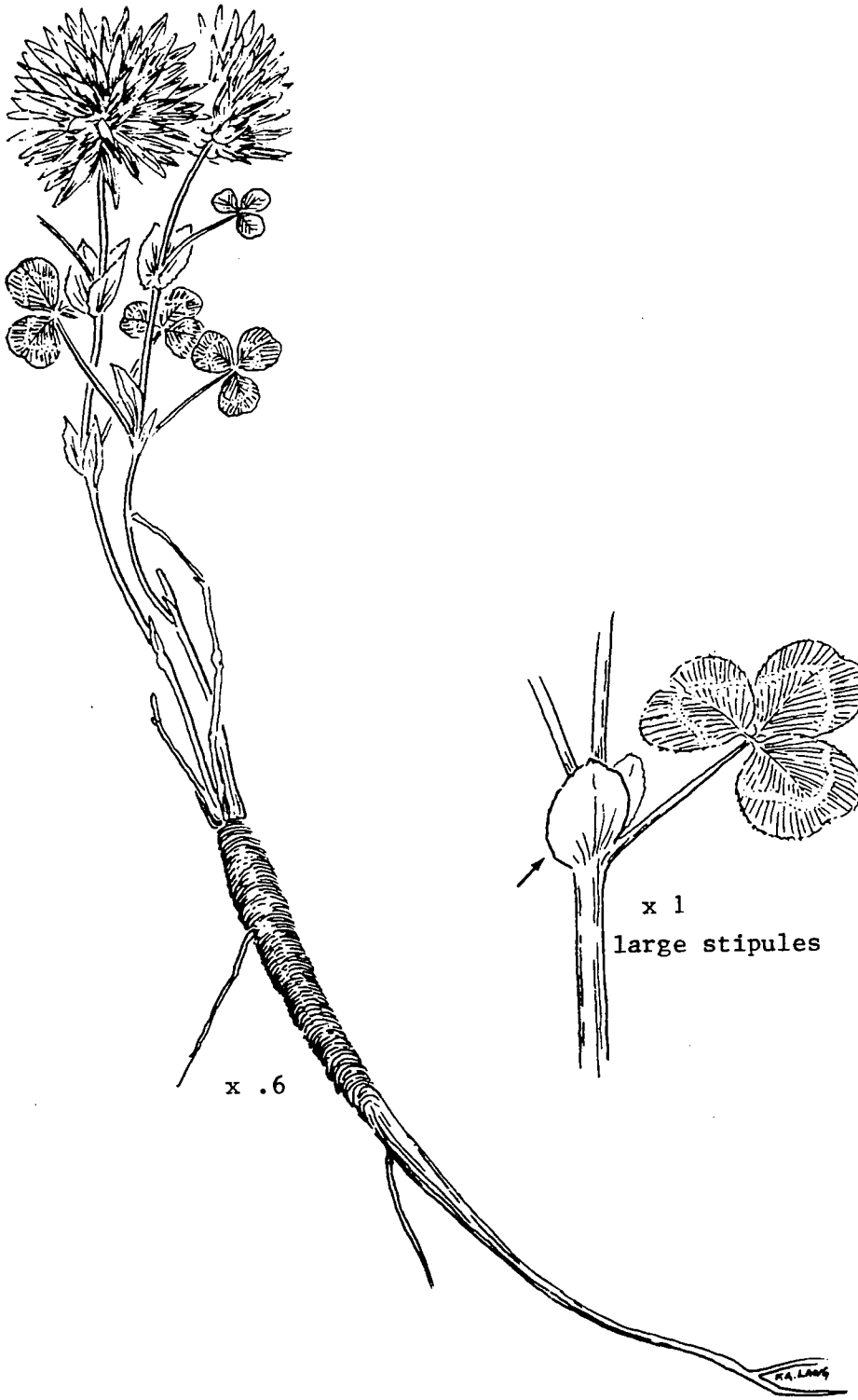
Threats: Removal of required substrate for road construction material, off-road vehicles

Key Characteristics

Large flower heads
Flowers rose-colored
Leaflets in threes
Individual leaflets are circular
Restricted habitat

Trifolium owyheense

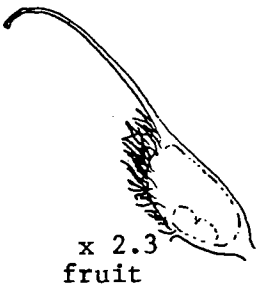
Owyhee Clover



x .6

x 1
large stipules

x 3
flower



x 2.3
fruit

Legal Description of all Sensitive Plants in the Boise District

February 23,88

T1N, R4W, Sec. 3,4	Chaenactis cusickii
Sec. 13,22,24	Phacelia lutea var. calva
R5W, Sec. 7	Gymnosteris nudicaulis
Sec. 21	Eriogonum salicornoides
R2E, Sec. 28,33	Texosporium sancti-jacobi
R6E, Sec. 11	Primula wilcoxiana
R7E, Sec. 24	Stylocline filaginea
R8E, Sec. 30	Primula wilcoxiana
R21E, Sec. 13	Stipa webberi
R23E, Sec. 2,3,34	" "
R24E, Sec.3	Eriogonum salicornoides
R30E, Sec. 18	Gymnosteris nudicaulis
T2N, R1W, Sec. 24	Lepidium montanum var. papilliferum
R3W, Sec. ?	Malacothrix glabrata
R4W, Sec. 17	Glyptopleura marginata
Sec. 22 or 23	Chaenactis cusickii
Sec. 22 or 23	Camassia cusickii
R5W, Sec. 22,27	Chaenactis cusickii
Sec. 27	Phacelia lutea var. calva
R7E, Sec. 7,8,11,31	Primula wilcoxiana
T3N, R2W, Sec. 23	Lepidium montanum var. papilliferum
R5W, Sec. 4,8	Eriogonum salicornoides
Sec. 2	Malacothrix torreyi
R6W, Sec. 26,35	Phacelia lutea var. calva
R2E, Sec. 1,2	Allium aaseae
Sec. 2,12,14	Astragalus mulfordiae
Sec. 2,12	Lepidium montanum var. papilliferum
Sec. 2	Primula wilcoxiana
R3E, Sec. 20	Lepidium montanum var. papilliferum
R4E, Sec. 21	Primula wilcoxiana
R6E, Sec. 31	Primula wilcoxiana
R29E, Sec. 32	Gymnosteris nudicaulis
T4N, R3W, Sec. 10,15	Gymnosteris nudicaulis
R1E, Sec. 13	Lepidium montanum var. papilliferum
Sec. 13	Allium aaseae
R2E, Sec. 15,35,36	Astragalus mulfordiae
Sec. 14,15,16	Primula wilcoxiana
Sec. 6-9,15-17,20,21,23, 25,26,34-36	Allium aaseae
R3E, Sec. 20,21	Allium aaseae
Sec. 20,31	Primula wilcoxiana
T5N, R3W, Sec. 17	Eriogonum salicornoides
Sec. 6	Lepidium montanum var. papilliferum
R5W, Sec. 10	Lepidium m. var. papilliferum
R1E, Sec. 1,4,7-10,14,15, 17,22-28	Allium aaseae

T5N, R2E, Sec. 24	Primula wilcoxiana
R2E, Sec. 27,34	Allium aaseae
R7E, Sec. 24	Epipactis gigantea
T6N, R1W, Sec. 1-3,10-12,221-24,33,34	Allium aaseae
Sec. 30	Primula wilcoxiana
R2W, Sec. 8	Lepidium montanum var. papilliferum
Sec. 25	Primula wilcoxiana
R1E, Sec. 24,36	Allium aaseae
R2E, Sec. 28,34	Allium aaseae
R5E, Sec. 33	Epipactis gigantea
R11E, Sec. 35	Epipactis gigantea
T7N, R1W, Sec. 19	Gymnosteris nudicaulis
	Lepidium montanum var. papilliferum
R2E, Sec. 28	Primula wilcoxiana
T8N, R1W, Sec. 13,24,25	Camassia cusickii
R4W, Sec. 33	Gymnosteris nudicaulis
	Lepidium montanum var. papilliferum
R5E, Sec. 1,8,10	Epipactis gigantea
T9N, R5W, Sec. 12	Astragalus mulfordiae
R3E, Sec. ?	Primula wilcoxiana
T10N, R5W, Sec. 36	Astragalus mulfordiae
Sec. 10	Haplopappus radiatus
T11N, R3W, Sec. 33	Haplopappus radiatus
R4W, Sec. 21,28,32	Astragalus mulfordiae
Sec. 13,24	Peraphyllum ramosissimum
R5W, Sec. 26,29,5	Astragalus mulfordiae
Sec. 3,33	Haplopappus radiatus
T12N, R19E, Sec. 28	Eatonella nivea
T13N, R5W, Sec. 14,23,25,35	Peraphyllum ramosissimum
T14N, R5W, Sec. ?	Astragalus vallaris
Sec. 33	Peraphyllum ramosissimum
R6W, Sec. 8	Astragalus vallaris
Sec. 9,10	Haplopappus radiatus
R7W, Sec. 23	Astragalus vallaris
R18E, Sec. 3	Malacothrix torreyi
T15N, R5W, Sec. 33	Peraphyllum ramosissimum
T17N, R5W, Sec. 26	Haplopappus radiatus
Sec. 27 or 28	Camassia cusickii
R14E, Sec. 22	Epipactis gigantea
T18N, R4W, Sec. 3,4,9 10,21,33	Camassia cusickii
Sec. 3,4,13,35	Astragalus vallaris
R21E, Sec. 12	Epipactis gigantea

T19N, R4W, Sec. 17,20	Camassia cusickii
T1S, R1W, Sec. 28,32,35	Eriogonum shockleyi var. shockleyi
R2W, Sec. 28,29,33,34	Astragalus camptopus
R3W, Sec. 14	Astragalus mulfordiae
R4W, Sec. 6	Chaenactis cusickii
Sec. 6,34	Dimersia howellii
T1S, R5W, Sec. 13	Dimersia howellii
Sec. 13,19	Chaenactis cusickii
Sec. 30	Astragalus sterilis
Sec. 28,30	Eriogonum salicornoides
Sec. 4,9,19,20,31,34	Mentzelia mollis
Sec. 9,19,28,30	Phacelia lutea var. calva
R6W, Sec. 36	Eriogonum salicornoides, Phacelia lutea var. calva
Sec. 1	Stylocline filaginea, Dimersia howellii
R4E, Sec. 9	Stylocline filaginea
Sec. 14	Lepidium montanum var. papilliferum
R6E, Sec. 3	Primula wilcoxiana
R11E, Sec. ?	Primula wilcoxiana
R18E, Sec. 18	Eriogonum salicornoides
R19E, Sec. ?	Gymnosteris nudicaulis
T2S, R1W, Sec. 9	Glyptopleura marginata
Sec. 6	Astragalus mulfordiae
R2W, Sec. 3,4,23,32	Astragalus camptopus
Sec. 10	Eriogonum salicornoides
Sec. 15	Glyptopleura marginata
R3W, Sec. 2	Eriogonum salicornoides
Sec. 32	Nemacladus rigidus
Sec. 16	Pediocactus simpsonii var. robustior
Sec. 17	Eatonella nivea
R4W, Sec. 24	Cryptantha propria
Sec. 23	Eriogonum salicornoides
R5W, Sec. 36	Mentzelia mollis
R6W, Sec. 11	Astragalus sterilis, Eriogonum salicornoides
Sec. 11,12	Phacelia lutea var. calva
R1E, Sec. 17	Mentzelia torreyi var. acerosa
R2E, Sec. 11	Lepidium davisii
Sec. 2	Glyptopleura marginata
R5E, Sec. 20	Astragalus camptopus
R9E, Sec. 18	Astragalus atratus var. owyheensis
R16E, Sec. 12	Astragalus atratus var. inseptus
R18E, Sec. 3,18,20	" " "
T3S, R2W, Sec. 10,12	Astragalus camptopus
Sec. 2	Malacothrix glabrata
Sec. 22	Glyptopleura marginata
R3W, Sec. 20	Dimersia howellii
R4W, Sec. 2	Astragalus atratus var. owyheensis
R5W, Sec. ?	Mentzelia mollis
R6W, Sec. 14	Phacelia lutea var. calva, Trifolium owyheense

T3S, R1E, Sec. 7,25,29,31	Malacothrix glabrata
Sec. 7	Eatonella nivea
R2E, Sec. 11,21,31	Lepidium davisii
R3E, Sec. 23,27	Lepidium davisii
R4E, Sec. 22,28,31,33,36	" "
R5E, Sec. 20,35	" "
R6E, Sec. 23 (or 26,35)	Lepidium montanum var. papilliferum
R9E, Sec. 1	Stylocline filaginea
R10E, Sec. 19	Stylocline filaginea
R11E, Sec. 3	" "
R12E, Sec. 4,7,9	Stipa webberi
R13E, Sec. 19	" "
R16E, Sec. 9,16	Gymnosteris parvula
Sec. 6	Astragalus atratus var. inseptus
R17E, Sec. 27	" " "
R20E, Sec. 7	Gymnosteris nudicaulis
Sec. 10,19	Astragalus atratus var. inseptus
R24E, Sec. 21	Gymnosteris nudicaulis
T4S, R1W, Sec. 4	Astragalus kentrophyta var. jessiae
Sec. 23,24	" " "
R3W, Sec. 7	Phacelia minutissima
R1E, Sec. 5,10	Eriogonum salicornoides
Sec. 33	Glyptopleura marginata
R2E, Sec. 25,30	Eriogonum salicornoides
R3E, Sec. 1,12	Lepidium davisii
R4E, Sec. 2-8,13,16-19,21,22,27	" "
R5E, Sec. 1,2,6,17,17,31	" "
R6E, Sec. 9,29	" "
R11E, Sec. 31	Eatonella nivea
R16E, Sec. 18	Astragalus atratus var. inseptus
R17E, Sec. 6	Stylocline filaginea
T5S, R1W, Sec. 8	Eriogonum salicornoides
R1E, Sec. 11	" "
R3E, Sec. 22	" "
Sec. 7	Astragalus kentrophyta var. jessiae
Sec. 11,22	Astragalus mulfordiae
Sec. 17	Malacothrix glabrata
R5E, Sec. 6	Lepidium davisii
Sec. 14	Eriogonum shockleyi var. shockleyi
R6E, Sec. 9,17,19,21	Lepidium davisii
Sec. 29	Eriogonum salicornoides
Sec. 9	Lepidium montanum var. papilliferum
R7E, Sec. 24	" " "
R8E, Sec. 23,24	Gymnosteris nudicaulis
R9E, Sec. 30,32	" "
Sec. 18	Lepidium montanum var. papilliferum
Sec. 34	Astragalus atratus var. owyheensis
R10E, Sec. 3	Gymnosteris nudicaulis
R11E, Sec. 7	Malacothrix glabrata
R12E, Sec. 6	Mentzelia torreyi var. acerosa

T6S, R3E, Sec. 22,34	Astragalus camptopus
Sec. 27	Mentzelia torreyi var. acerosa
R5E, Sec. 24	Astragalus camptopus, Epipactis gigantea, Eriogonum salicornoides
Sec. 33	Mentzelia torreyi var. acerosa
Sec. 35	Eriogonum shockleyi var. shockleyi
R6E, Sec. 8,10	Eriogonum salicornoides
Sec. 11,32	Malacothrix glabrata
Sec. 22	Cymopteris acaulis var. greeleyorum
Sec. 18	Astragalus kentrophyta var. jessiae
Sec. 16,21	Eatonella nivea
Sec. 18,26	Eriogonum shockleyi var. shockleyi
R9E, Sec. 8	" " "
R10E, Sec. 16	Gymnosteris nudicaulis
R11E, Sec. 7,22	Mentzelia torreyi var. acerosa
R13E, Sec. 20	Astragalus atratus var. inseptus
Sec. 33	" " "
T7S, R2W, Sec. 6,7	Astragalus yoder-williamsii
R3W, Sec. 4	Astragalus camptopus
R1E, Sec. 14	Gymnosteris nudicaulis
R2E, Sec. 14	Astragalus camptopus, Glyptopleura marginata
Sec. 23	Malacothrix torreyi
R3E, Sec. 2-5,7,9	Astragalus camptopus
Sec. 3	Malacothrix glabrata
Sec. 4,5	Mentzelia torreyi var. acerosa, Eriogonum shockleyi var. shockleyi
Sec. 4	Glyptopleura marginata
Sec. 5	Astragalus mulfordiae
R5E, Sec. 5,20,21,30,31	Astragalus camptopus
Sec. 30	Malacothrix glabrata
Sec. 5,31	Astragalus kentrophyta var. jessiae
Sec. 20	Astragalus mulfordiae
Sec. 1,2,20	Eriogonum shockleyi var. shockleyi
Sec. 20	Glyptopleura marginata
R6E, Sec. 7	Astragalus camptopus
Sec. 3,26,34,36	Mentzelia torreyi var. acerosa
Sec. 34	Peteria thompsonae, Glyptopleura marginata
Sec. 17-20	Eriogonum shockleyi var. shockleyi
Sec. 36	Astragalus kentrophyta var. jessiae
R12E, Sec. 14	Gymnosteris nudicaulis
R13E, Sec. 32	Astragalus atratus var. owyheensis, Astragalus atratus var. inseptus
Sec. 25	Gymnosteris nudicaulis
R15E, Sec. 33	Gymnosteris nudicaulis
T8S, R1W, Sec. 36	Astragalus yoder-williamsii
R1E, Sec. 13,23,24	Pediocactus simpsonii var. robustior
R2E, Sec. 2,28,36	" " "
R3E, Sec. 27,31,35	" " "
R5E, Sec. 19	Mentzelia torreyi var. acerosa
Sec. 6	Astragalus camptopus
Sec. 18	Peteria thompsonae, Glyptopleura marginata

T8S, R6E, Sec. 3,9	Mentzelia torreyi var. acerosa, Peteria thompsonae
Sec. 21	Peteria thompsonae
Sec. 20	Astragalus camptopus
Sec. 16,21	Eatonella nivea
R7E, Sec. 6	Astragalus kentrophyta var. jessiae
R8E, Sec. 18	Gymnosteris nudicaulis
R13E, Sec. 10	Mentzelia torreyi var. acerosa
R14E, Sec. 29	" " "
T9S, R1W, Sec. 3,8,10	Astragalus yoder-williamsii
R6W, Sec. 36	Dimersia howellii
R1E, Sec. 13	Gymnosteris parvula
R2E, Sec. 1	Pediocactus simpsonii var. robustior
R5E, Sec. 5	Astragalus kentrophyta var. jessiae, Mentzelia torreyi var. acerosa
R13E, Sec. 11	Astragalus atratus var. owyheensis
R14E, Sec. 10	Mentzelia torreyi var. acerosa
R15E, Sec. ?	" " "
T10S, R2W, Sec. 4,6	Erigeron latus
R3W, Sec. ?	Hackelia ophiobia
Sec. 2,8	Astragalus yoder-williamsii
Sec. 27	Artemisia packardiae
R4W, Sec. 1,20	Gymnosteris parvula
Sec. 21,23,31	Astragalus yoder-williamsii
Sec. 20,21	Erigeron latus
R5W, Sec. 6	Dimersia howellii
Sec. 22,36	Astragalus yoder-williamsii
R6W, Sec. 1	Dimersia howellii
R4E, Sec. 4,9	Pediocactus simpsonii var. robustior
Sec. 9,17,21	Lepidium davisii
R5E, Sec. 23	" "
R6E, Sec. 11,22	" "
R7E, Sec. 33	" "
Sec. 35	Leptodactylon glabrum
R8E, Sec. 15	Gymnosteris parvula
R12E, Sec. 14	Gymnosteris nudicaulis
T11S, R4W, Sec. 11,14	Astragalus yoder-williamsii
R6E, Sec. 2,22	Lepidium davisii
T12S, R3W, Sec. 15	Erigeron latus
R4W, Sec. 20 ?	" "
R5W, Sec. 31,32	Pediocactus simpsonii var. robustior
R6E, Sec. 13	Lepidium davisii
R7E, Sec. 6,18	" "
T13S, R2W, Sec. 5	Hackelia ophiobia
R3W, Sec. 25	" "
Sec. 15,22,27,28,33	Erigeron latus
R5W, Sec. 6	Pediocactus simpsonii var. robustior
R6E, Sec. 3,18,22,23,27	Lepidium davisii

T14S, R1W, Sec. 18	Artemisia packardiae
R5W, Sec. 11	Hackelia ophiobia
Sec. 23	Lupinus uncialis
R1E, Sec. 26	Astragalus atratus var. owyheensis
R6E, Sec. 2,22,23	Lepidium davisii
R8E, Sec. 5	Leptodactylon glabrum
R13E, Sec. 7	Astragalus atratus var. owyheensis
R15E, Sec. 23,,31,32	Lepidium davisii
T15S, R4W, Sec. 22	Eatonella nivea
Sec. 19,21,22	Lupinus uncialis
Sec. 15	Artemisia packardiae
R5W, Sec. 28	Eriogonum salicornoides, Phacelia lutea var. calva
R7E, Sec. 19	Leptodactylon glabrum
R11E, Sec. 34	Erigeron latus
R12E, Sec. 11 (or adjacent)	" "
T16S, R4W, Sec. 13	Lupinus uncialis, Malacothrix torreyi
R5W, Sec. 16	Hackelia ophiobia
R3E, Sec. 18	Stylocline filaginea
R9E, Sec. 11	Astragalus atratus var. owyheensis
R14E, Sec. 2	Stipa webberi
Sec. 29	Glyptopleura marginata
R15E, Sec. 7	" "