

***Arctomecon merriamii* Coville**

WHITE BEAR POPPY

Papaveraceae

Status:

Global/State ranks G3, S3

NNHP: At-risk list

NNPS: Watch list

State: unlisted

BLM: Sensitive

USFWS: unlisted

Habitat: Basic soils ranging from dry to moist; alkaline sand and clay, gypsum, outcrops of carbonate rock, calcareous alluvial gravels. 610 - 1,585 meters (2000 - 5,200 feet)



Counties:

Clark, Lincoln, Nye. Also in CA.

Life Form:

Dicot
perennial herb

Bloom period:

April - May



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Arctomecon merriamii Coville



Jepson eFlora Treatment and Key:

Gary L. Hannan & Curtis Clark 2012. *Arctomecon*, in Jepson Flora Project (eds.) *Jepson eFlora*, http://ucjeps.berkeley.edu/cgi-bin/get_IJM.pl?tid=13901, accessed on Jan 22 2014. Reprinted with permission from the Jepson Herbarium, UC Berkeley.

Note that these treatments and keys describe California taxa and may not be a perfect match for Nevada material.

Arctomecon

Perennial herb; hairs generally \pm 5–15 mm; taproot stout; sap colorless or yellow. Leaf: generally basal, obovate or wedge-shaped, long white-hairy; teeth rounded. Inflorescence: terminal, 1-flowered. Flower: bud nodding; sepals 2–3, long-hairy; petals 4 or 6, free, obovate, white [yellow], generally persistent after flower; stamens many, free; placentas 3–6, style 1, stigma lobes 3–6. Fruit: ovate to oblong, dehiscent from tip. Seed: few, oblong, wrinkled, black; aril present; fleshy appendage present. 3 species: southwestern United States. (Greek: bear poppy, from long hairs)

A. merriamii

Plant 2–5 dm. Stem: glaucous. Leaf: 2.5–12 cm. Flower: sepals 3, 15–20 mm; petals 6, 25–40 mm. Fruit: 25–40 mm. Seed: 1.5–2 mm. Rocky slopes; 800–1600 m. ne Mojave Desert; southern Nevada. Unabridged note: *Arctomecon californica* Torr. & Frém. (sepals 3, glabrous; petals 6, yellow) in southwestern Nevada, northern Arizona, but undocumented for California.

***Arctomecon merriamii* Coville**

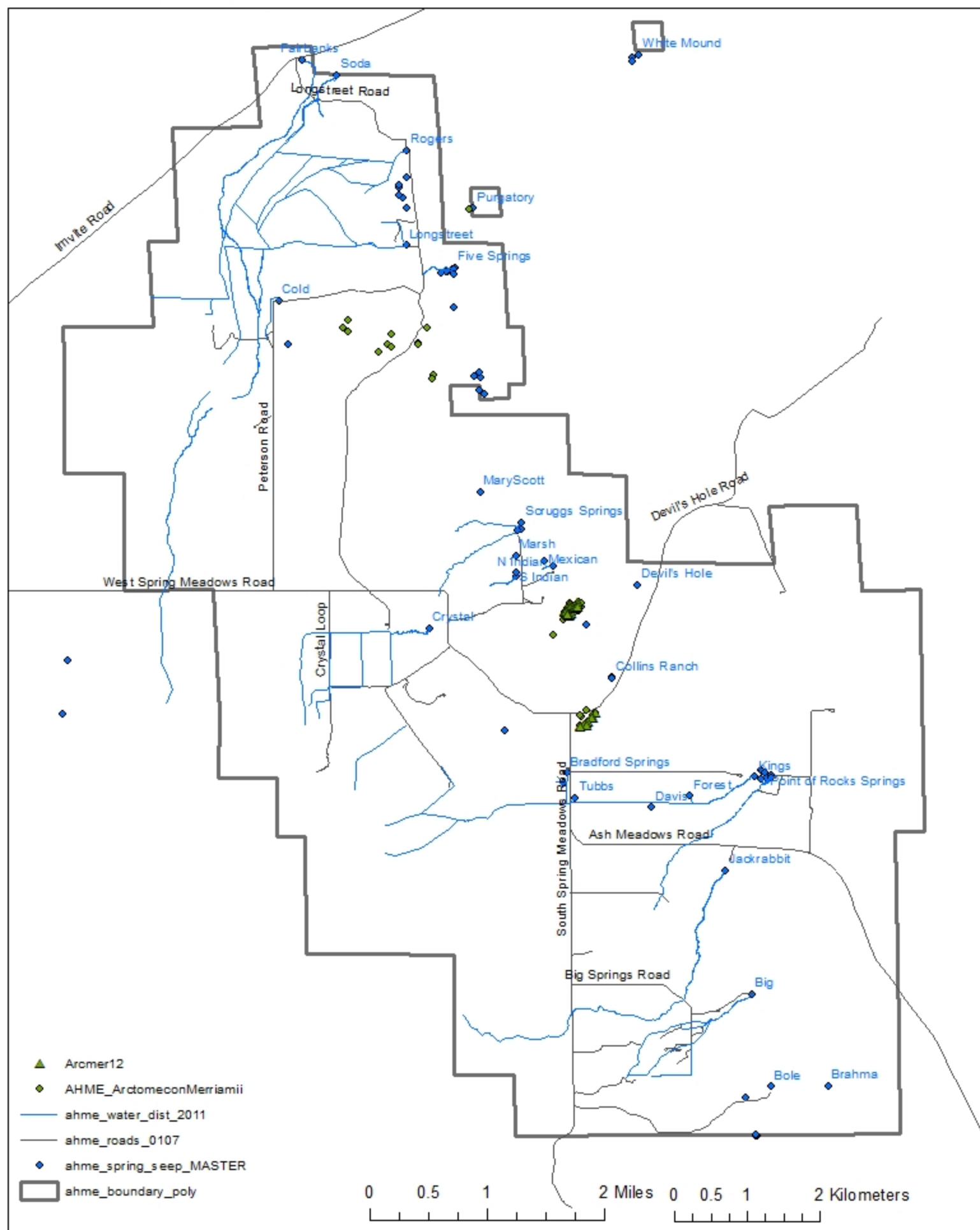
Key to *Papaveraceae* (no key for *ARCOMECON* genus, contains a single species in CA)

1. Flower bilateral or biradial; petals 4, 1 or both outer spurred or pouched at base (*Fumarioideae*)
 2. Flower biradial; outer 2 petals alike, both pouched at base
 3. Plant without leafy stems *DICENTRA*
 - 3' Plant with leafy stems *EHRENDORFERIA*
 - 2' Flower bilateral; outer 2 petals not alike, upper spurred at base
 4. Fruit a capsule, generally linear to oblong, several- to many-seeded *CORYDALIS*
 - 4' Fruit ± a nut, ± round, 1-seeded *FUMARIA*
- 1' Flower radial; petals ≥ 4, not spurred or pouched at base (*Papaveroideae*)
 5. Subshrub to small tree
 6. Petals 4(6), yellow, 2–3 cm; leaf entire or minutely toothed *DENDROMECON*
 - 6' Petals 6, white, 4–10 cm; leaf deeply lobed *ROMNEYA*
 - 5' Annual, biennial, perennial herb, occasionally woody at base
 7. Leaves entire to minutely toothed; petals generally 6
 8. Plant generally glabrous; stamens 4–15
 9. Basal leaves sessile, linear, fleshy; petals persistent; capsule ovoid, 1.5–2.5 mm
CANBYA
 - 9' Basal leaves petioled, spoon-shaped, not fleshy; petals deciduous; capsule linear, to 50 mm *MECONELLA*
 - 8' Plant long-hairy; stamens > 12
 10. Stigmas 3; fruit ovoid, opening by 3 valves, not breaking transversely into units
HESPEROMECON
 - 10' Stigmas ≥ 6; fruit ovoid to widely linear, breaking transversely into 1-seeded, indehiscent units *PLATYSTEMON*
 - 7' Leaves toothed to dissected; petals 4, 6, or more
 11. Plant spiny; leaves generally cauline *ARGEMONE*
 - 11' Plant unarmed; leaves basal, cauline, or both
 12. Hairs generally ± 5–15 mm, wavy; leaves generally basal — ne Mojave Desert
ARCTOMECON
 - 12' Hairs 0 or to 3 mm, straight; leaves basal, cauline, or both
 13. Ovary, fruit < 3 × longer than wide; carpels > 2; fruit opening by pores *PAPAVER*
 - 13' Ovary generally > 3 × (fruit > 4 ×) longer than wide; carpels 2; fruit splitting into 2 valves
 14. Leaf dissected into ± linear segments; sepals 2, fused into conical cap; receptacle cup-shaped around ovary base; stigma lobes 4–8, linear *ESCHSCHOLZIA*
 - 14' Leaf deeply pinnate-lobed; sepals 2, free; receptacle not cup-shaped, not around ovary base; stigma lobes 2, not linear [*GLAUCIUM*]

AMNWR Rare Plant Occurrences

Arctomecon merriamii

Last updated K. Tanner 2/26/2014



Astragalus phoenix Barneby

ASH MEADOWS MILKVETCH

Fabaceae

Status:

Global/State ranks G2, S2
NNHP: At-risk list
NNPS: Threatened
State: Critically endangered
BLM: Sensitive
USFWS: Threatened

Habitat: Seasonally moist to dry flats, knolls and washes with alkaline calcareous soils. 671 - 716 meters (2,201 - 2,349 feet)



Counties:

Nye

Life Form:

Dicot
perennial herb

Bloom period:

February - May



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Astragalus phoenix Barneby



Plant associates: *Atriplex confertifolia*, *Distichlis spicata*, *Enceliopsis nudicaulis corrugata*, *Haplopappus acradenius*, *Mentzelia leucophylla*

Jepson eFlora Treatment (*Astragalus* genus only; *A. phoenix* not listed):

Martin F. Wojciechowski & Richard Spellenberg 2012. *Astragalus*, in Jepson Flora Project (eds.) *Jepson eFlora*, http://ucjeps.berkeley.edu/cgi-bin/get_IJM.pl?tid=54612, accessed on Jan 24 2014. Reprinted with permission from the Jepson Herbarium, UC Berkeley. *Note that these treatments and keys describe California taxa and may not be a perfect match for Nevada material.*

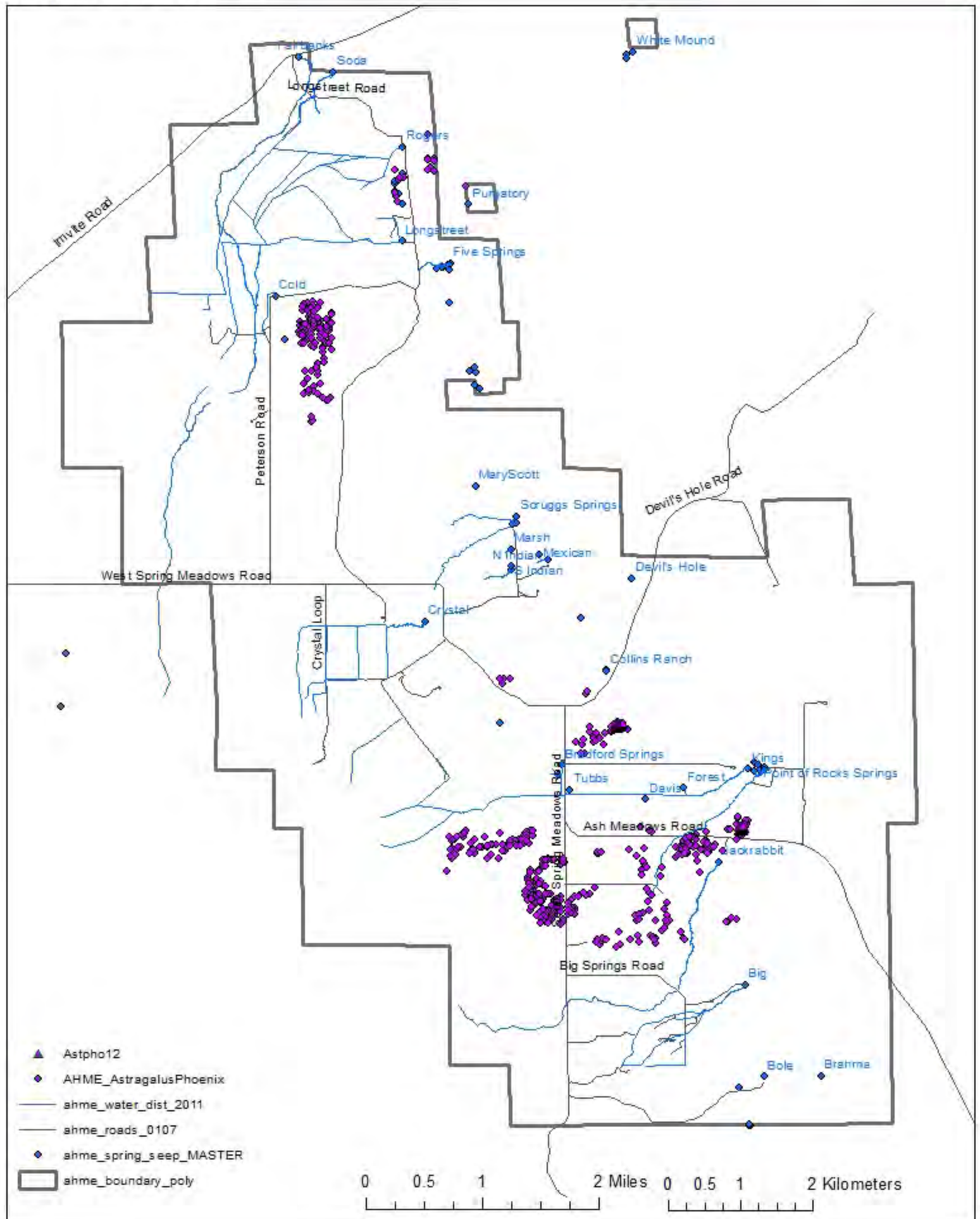
Astragalus

Annual, perennial herb from crown, generally unarmed; hairs generally present, simple or branches 2, from base, parallel to leaf surface, unequal or not. Stem: 0 or prostrate to erect. Leaf: odd-1-pinnate (or palmately compound); leaflets generally jointed to midrib, entire; stipules membranous, lower fused around stem into sheaths (stipule sheaths) or not. Inflorescence: raceme, head- or umbel-like or not, axillary; flowers 2–many. Flower: bilateral; keel petals with small protrusion at base locking into pit on adjacent wing; 9 filaments fused, 1 free; ovary (and fruit) generally sessile, style slender, stigma minute. Fruit: generally 1- or \pm 2-chambered, often mottled, generally \pm dry in age, sometimes deciduous (falling from plant with or without pedicel, calyx, receptacle) before dehiscence. Seed: 2–many, smooth, compressed, \pm notched at attachment scar.

AMNWR Rare Plant Occurrences

Astragalus phoenix

Last updated K. Tanner 2/21/2014



Chloropyron tecopense (Munz & J.C. Roos)

Tank & J.M. Egger

TECOPA SALTY BIRD'S-BEAK

Orobanchaceae

Synonyms: *Cordylanthus tecopensis*

Status:

Global/State ranks G2, S2

NNHP: At-risk list

NNPS: Threatened

State: unlisted

BLM: Sensitive

USFWS: unlisted

Habitat: Moist to wet alkaline soils.in open areas near drainages, seeps, meadows. 640 - 1,494 meters (2,100 - 4,902 feet)



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Counties:

Esmeralda, Nye.
Also in CA.

Life Form:

Dicot
annual herb

Bloom period:

June - October



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***Chloropyron tecopense* (Munz & J.C. Roos) Tank & J.M. Egger**

Plant associates: *Distichlis spicata*, *Centaurium namophilum*, *Cirsium*, *Ericameria albida*, *Eleocharis*, *Ivesia kingii eremica*, *Juncus balticus*, *Spiranthes infernalis*, *Typha*

Jepson eFlora Treatment and Key:

Margriet Wetherwax & David C. Tank 2012. Chloropyron, in Jepson Flora Project (eds.) Jepson eFlora, http://ucjeps.berkeley.edu/cgi-bin/get_IJM.pl?tid=93769, accessed on Jan 19 2014 .

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Chloropyron

Annual 10–60 cm, green, branches few to many; roots \pm yellow. Leaf: alternate, sessile, 5–35 mm, entire, lanceolate to oblong. Inflorescence: spike, loose to dense, subtended by outer, leaf-like bracts; inner bract 1 per flower, \pm leaf-like, entire or pinnately lobed. Flower: calyx = or slightly < corolla, sheath-like, generally cut completely to base abaxially, partially surrounding corolla tube laterally, notched \pm 1 mm at tip; corolla 2-lipped, club-shaped, tubular below, expanded laterally, upper lip folded lengthwise, tip rounded, closed, opening directed downward forming a hood enclosing anthers and style; lower lip \leq upper lip, obscurely 3-lobed; fertile stamens 4 and staminodes 0, or 2 with adaxial pair of staminodes (attached deeper in corolla tube), anther sacs generally 2 per stamen, \pm overlapping, tufted-hairy at base, unequal in size and placement; ovary 2-chambered, glabrous, ovules many, style bent near tip, stigma barely exerted. Seed: attached at side; seed coat tight-fitting, netted. n=14,15,21.

4 species: saline and alkaline habitats, western North America. (Greek: salt plant) [Tank et al. 2009 Syst Bot 34:182–197] Formerly included in *Cordylanthus*. Close to *Dicranostegia*, together forming the *Pseudocordylanthus* clade (see Tank et al. 2009); distinguished by salt-tolerant ecology, inflorescence, calyx, stamens; flowers May–Nov.

Chloropyron tecopense

Plant 10–60 cm, \pm gray or tinged purple, sparsely puberulent, glaucous. Leaf: 5–15 mm, 1–2 mm wide, lance-linear, entire. Inflorescence: spike, 20–150 mm, loose; outer bracts leaf-like; inner bracts 10–15 mm, 3-lobed near middle. Flower: calyx 10–13 mm; corolla 10–15 mm, pale lavender, densely puberulent, middle lobe of lower lip erect; fertile stamens 2, staminodes 2; style puberulent. Seed: 8–10, 2–3 mm, \pm reniform, deeply netted, light brown.

2n=28. Alkaline meadows and flats; 100–900 m. s East of Sierra Nevada, n Mojave Desert; western Nevada. [*Cordylanthus tecopensis* Munz & J.C. Roos] Aug–Oct

Chloropyron tecopense (Munz & J.C. Roos) Tank & J.M. Egger

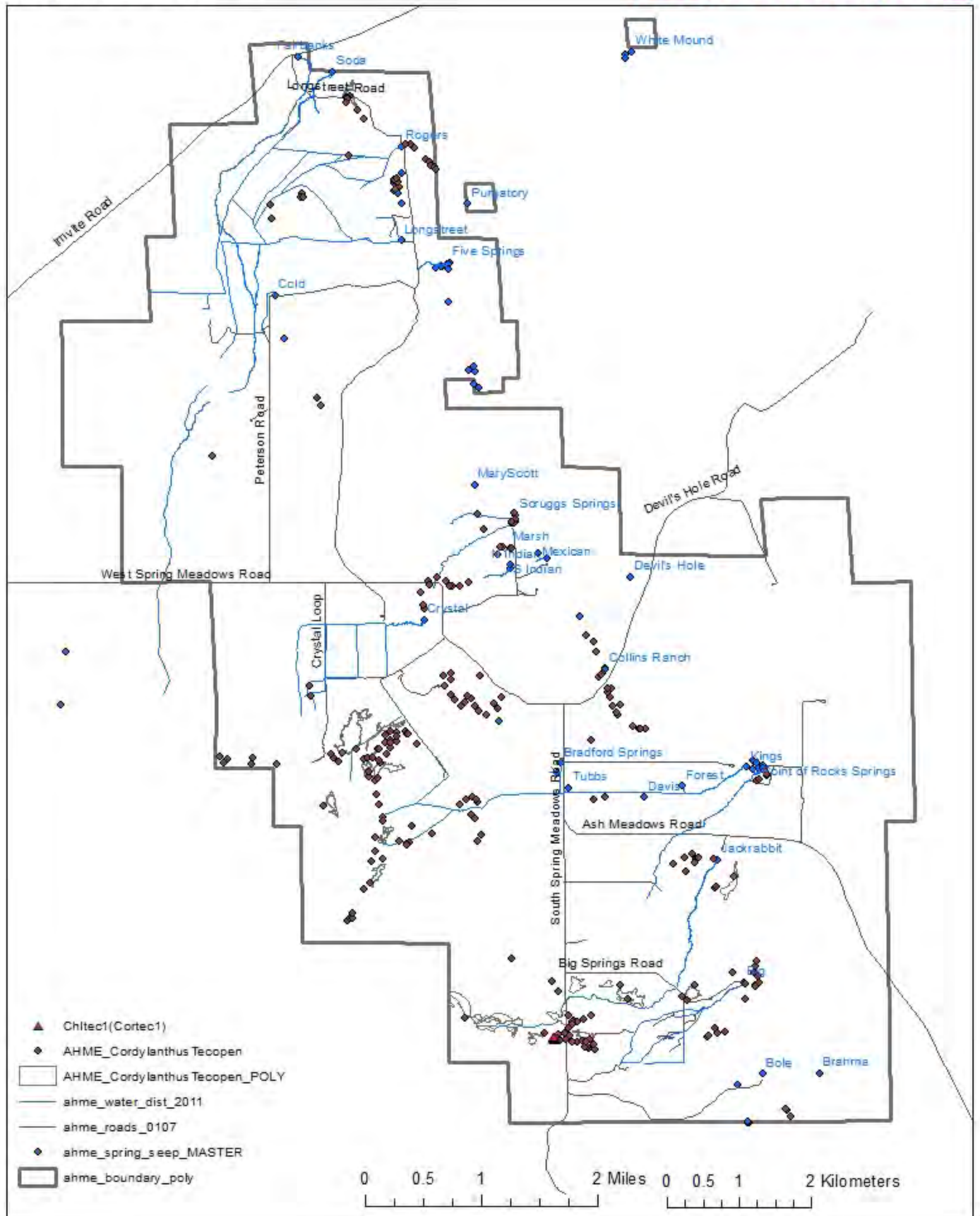
Key to *Chloropyron*

1. Fertile stamens 4; inner bracts entire or slightly notched *C. maritimum*
2. Inner bracts generally entire; seeds 25–40, 1–1.5 mm; inland subsp. *canescens*
- 2' Inner bracts slightly notched; seeds 10–20, 2–3 mm; generally coastal
3. Stem generally much-branched, distal branches generally > central spike; seeds \pm 2 mm; s Central Coast, South Coast subsp. *maritimum*
- 3' Stem 0–few-branched, branches \leq central spike; seeds 2–3 mm; North Coast, n Central Coast subsp. *palustre*
- 1' Fertile stamens 2, staminodes 2; inner bracts 3–7-lobed
4. Leaf 1–2 mm wide; inner bracts 3-lobed; style puberulent *C. tecopense*
- 4' Leaf 3–8 mm wide; inner bracts 3–7-lobed; style glabrous
5. Plant soft-hairy to becoming glabrous, longest hairs < 1 mm; seed coat deeply netted, wavy-crested *C. palmatum*
- 5' Plant, especially inflorescence, glandular-puberulent and stiff-long-nonglandular-hairy, longest hairs > 1 mm; seed coat deeply netted, not wavy-crested *C. molle*
6. Stem much-branched from near base; inflorescence generally 2–6 cm; corolla pouch and tube sparsely tomentose; seed 1–1.5 mm; Great Central Valley subsp. *hispidum*
- 6' Stem generally few-branched from middle; inflorescence 5–15 cm; corolla pouch and tube densely tomentose; seed 2–3 mm; n Central Coast, deltaic Great Central Valley subsp. *molle*

AMNWR Rare Plant Occurrences

Last updated K. Tanner 2/21/2014

Chloropyron tecopense (*Cordylanthus tecopenis*)



Enceliopsis nudicaulis (A. Gray) A. Nelson
var. ***corrugata*** Cronquist
ASH MEADOWS SUNRAY
Asteraceae

Status:

Global/State ranks G5T2, S2
NNHP: At-risk list
NNPS: Threatened
State: Critically endangered
BLM: Sensitive
USFWS: Threatened

Habitat: Alkaline, hard, dry to moist clay and silty soils near calcareous outcrops and seep or spring areas. 671 - 707 meters (2,201 - 2,320 feet)



Counties:

Nye

Life Form:

Dicot
perennial herb

Bloom period:

May - June



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Last revised 2/18/2014

***Enceliopsis nudicaulis* (A. Gray) A. Nelson var. *corrugata* Cronquist**



Plant associates: *Arctomecon merriamii*, *Astragalus phoenix*, *Atriplex confertifolia*, *Cryptantha confertiflora*, *Distichlis spicata*, *Grindelia fraxinipratensis*, *Gutierrezia sarothrae*, *Haplopappus acradenius*, *Ivesia kingii eremica*, *Krameria*, *Mentzelia leucophylla*

Jepson eFlora Treatment and Key:

David J. Keil & Curtis Clark 2012. *Enceliopsis*, in Jepson Flora Project (eds.) *Jepson eFlora*, http://ucjeps.berkeley.edu/cgi-bin/get_IJM.pl?tid=2566, accessed on Jan 19 2014. Reprinted with permission from the Jepson Herbarium, UC Berkeley. *Note that these treatments and keys describe California taxa and may not be a perfect match for Nevada material.*

Enceliopsis

Perennial herb from stout caudex, ± scapose. Stem: densely leafy at base, leafless distally. Leaf: basal and closely alternate, simple, petioled or sessile, entire, 3-veined. Inflorescence: heads radiate [discoid], 1; peduncle long; involucre hemispheric; phyllaries ± overlapped in 3–6 series, free; receptacle paleate, palea folded around and falling with fruit. Ray flower: sterile; style 0; ray yellow. Disk flower: (50)200–500+; corolla yellow, tube slender, throat abruptly expanded, lobes triangular; anther tips ovate, ± acute; style tips triangular. Fruit: strongly compressed, wedge-shaped; edges ± white, corky, glabrous or long-ciliate; faces black, glabrous or ± hairy; pappus [0] of 2 narrow awns and a crown of shorter scales.

***Enceliopsis nudicaulis* (treatment for *E. nudicaulis* var. *corrugata* not available)**

Plant 1–4 dm; hairs short, ± spreading. Stem: woody at base. Leaf: blades 2–6 cm, 2–6 cm wide. Inflorescence: head 4–9 cm diam; peduncle 1.5–4.5 dm, gray-puberulent; involucre 1–2 cm; phyllaries in 3–5 series, narrowly lanceolate from ovate base, acute, densely gray-puberulent. Ray flower: ± 21; ray 2–4 cm. Fruit: ± 9 mm, 3.5 mm wide, silky-hairy; pappus awns 1–1.5 mm, smooth. 2n=36. Stony hillsides and canyons; 950–2000 m. White and Inyo Mountains, Desert Mountains; to Idaho, Utah, northern Arizona. [*Enceliopsis nudicaulis* var. *corrugata* Cronquist] May–Jun

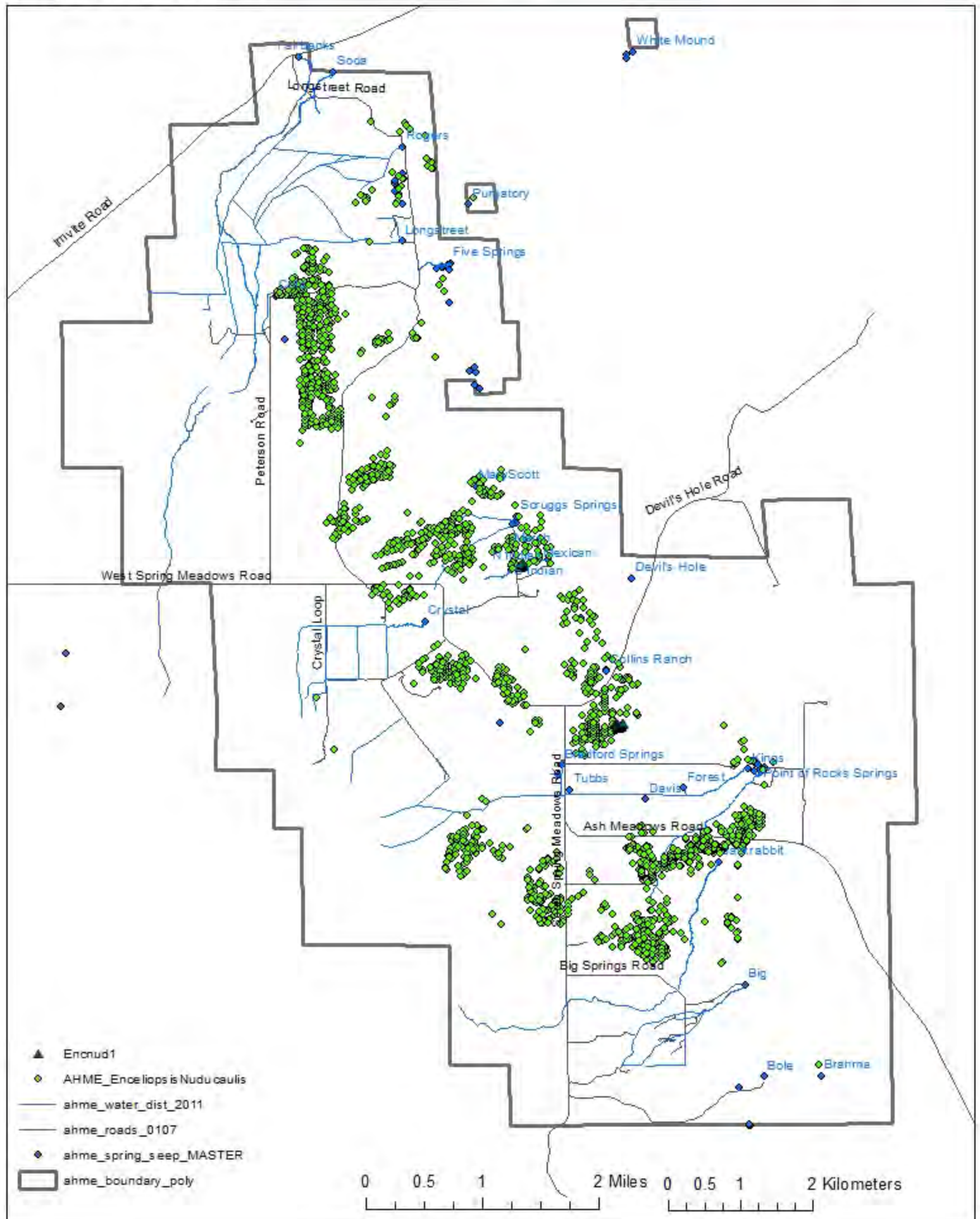
Key to *Enceliopsis*

1. Petioles winged, wings merging with blades, blades diamond-shaped or widely elliptic; herbage silvery-canescens *E. covillei*
- 1' Petioles not or barely winged, blades ovate; herbage dull gray *E. nudicaulis*

AMNWR Rare Plant Occurrences

Enceliopsis nudicaulis var. *corrugata*

Last updated K. Tanner 2/21/2014



Grindelia fraxinipratensis Reveal & Beatley

ASH MEADOWS GUMPLANT

Asteraceae

Synonyms: *Grindelia fraxino-pratensis*

Status:

Global/State ranks G2, S2
NNHP: At-risk list
NNPS: Threatened
State: Critically endangered
BLM: Sensitive
USFWS: Threatened

Habitat: Alkaline flats, moist to dry clay soils in drainage areas, seeps, meadows. 631 - 707 meters (2,070 - 2,320 feet)

Counties:

Nye. Also in CA.

Life Form:

Dicot
perennial herb

Bloom period:

July - October



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***Grindelia fraxinipratensis* Reveal & Beatley**

Plant associates: *Atriplex confertifolia*, , *Baccharis emoryi*, *Centaureum namophilum*, *Cirsium mohavense*, *Distichlis spicata*, *Fraxinus*, *Iva acerosa*, *Prosopis*, *Sporobolus airoides*, *Suaeda*, *Tamarix ramosissima*

BEWARE OF POTENTIAL LOOK-ALIKE *Pyrracoma racemosa*

Leaves

Grindelia fraxinipratensis has almost cordate [heart-shaped, with the notch at the base] shaped leaves that are resinous-punctate [dotted with pits or translucent, sunken glands, or with colored dots], they are entire [not toothed or divided] to dentate [toothed along margin, the teeth directed outward rather than forward toward apex (the tip – farthest from the point of attachment)] and are acute tipped [tapering to a pointed apex with more or less straight sides].

Pyrracoma racemosa leaves are spinulose [bearing spinules; small spined] or serrate [saw-like; toothed along margin, the sharp teeth pointing forward] or entire

Both species have basal leaves

Grindelia fraxinipratensis has oblanceolate [inversely lanceolate, with attachment at the narrow end] basal leaves 4-7 cm long (1.5 – 2.8 inches) & 9-12 mm wide ($\frac{1}{3}$ – $\frac{1}{2}$ inch) and has a 1-3 mm (up to 1/10 inch) long petiole.

Pyrracoma racemosa also has oblanceolate to elliptic [a narrow oval; broadest at the middle and narrower at the two equal ends] basal leaves that are 5-30 cm long (2 – 12 inches) & 5-30 cm wide (2 – 12 inches), Jepson says that this petiole is tomentose [with a covering of short, matted or tangled, soft, wooly hairs]. Both species have cauline [arising from the stem above ground level] leaves that are sessile [attached directly, without a supporting stalk, as a leaf without a petiole].

Inflorescence [the flowering part of the plant; a flower cluster; the arrangement of flowers around the axis]

Grindelia fraxinipratensis has an open and paniculately [flowers in panicles; a branched racemose (having flowers in racemes) inflorescence with flowers maturing from the bottom upwards] branched inflorescence (branched)

Pyrracoma racemosa has an elongate, racemiform [an inflorescence with the general appearance, but not necessarily the structure, of a true raceme (an unbranched, elongated inflorescence with pedicellate flowers (individual flowers in an inflorescence have a pedicel or stalk) maturing from the bottom upwards)] or narrowly paniculiform [an inflorescence with the general appearance, but not necessarily the structure, of a true panicle] inflorescence (unbranched)

Involucres [whorl of bracts subtending a flower or flower cluster]

Grindelia fraxinipratensis --> cylindrical (arranged in rows or series) & narrowly lanceolate [lance-shaped; much longer than wide; widest point below the middle], 7-9 mm high (approx. $\frac{1}{3}$ inch), 5-10 mm wide, thick-resinous phyllaries [an involucral bract of the Asteraceae].

Pyrracoma racemosa --> Imbricate in several series [overlapping like tiles on a roof] & firm, blunt, & pointed, 5.5-10 mm high; Intermountain Flora says involucres are above a pale chartaceous [pappery texture, usually not green] or coriaceous [leathery texture] base.

Both have bracts that are green tipped

Ray florets [a small flower; an individual flower in a spikelet, or a flower of the Asteraceae in an involucre head].

Grindelia fraxinipratensis has mostly 13 & are resinous

Pyrracoma racemosa has 8-25

Grindelia fraxinipratensis also has a minutely hispid [rough with firm, stiff hairs] stigma [the portion of the pistil which is receptive to pollen]; stigma is linear

Grindelia fraxinipratensis Reveal & Beatley

Jepson eFlora Treatment and Key:

Abigail J. Moore 2012. *Grindelia*, in Jepson Flora Project (eds.) Jepson eFlora, http://ucjeps.berkeley.edu/cgi-bin/get_IJM.pl?tid=88994, accessed on Jan 18 2014. Reprinted with permission from the Jepson Herbarium, UC Berkeley. *Note that these treatments and keys describe California taxa and may not be a perfect match for Nevada material.*

Grindelia

[Annual] perennial herb to subshrub from taproot or woody caudex, glabrous or tomentose, often glandular-sticky. Leaf: simple, alternate, generally not fleshy, entire, crenate, serrate, or pinnately lobed, gland-dotted. Inflorescence: heads generally radiate (discoid); involucre obconic to hemispheric, generally gummy; phyllaries in 4–10 graduated series; receptacle flat to convex, ± pitted, epaleate. Ray flower: 0–60; corolla yellow. Disk flower: corolla yellow; anther tip lanceolate; style-branch appendages linear to lanceolate, generally >= stigmatic portion. Fruit: cylindric or swollen-obconic, shiny-white to ± brown, smooth or ridged, glabrous; pappus of 1–6 narrow awns (occasionally construed as bristle-like) [25–40 bristles], ± < disk corolla, generally entire, deciduous.

Grindelia fraxinipratensis

Perennial herb 5–12 dm, erect, branched throughout. Leaf: 1–8 cm; basal 0 at flower, distal smaller; blade oblanceolate to oblong, narrowed to base, glabrous, resinous, dark green to yellow-green, entire or serrate. Inflorescence: involucre 5–9 mm diam, ± obconic, glabrous, resinous; phyllaries in 4–7 series, bases wide, straw-colored, tips green, acuminate, ± round in x-section, spreading to reflexed or coiled 180°. Ray flower: 8–12; ray 4–6 mm. Fruit: 2.5–4 mm, white to golden-brown, top generally truncate; pappus awns 2.

2n=24. Wet clay of meadows, woodland edges near alkaline springs; ± 700 m. e Mojave Desert; Nevada. [[Grindelia fraxino-pratensis](#), orth. variety.] Threatened by water diversion. Jul–Oct

Key to *Grindelia*

1. Leaves crenate, each tooth with a distinct, ± yellow bump near tip *G. squarrosa* var. *serrulata*
- 1' Leaves entire or serrate; if serrate, ± yellow bump near tip of teeth 0;
 2. Plants of dunes, salt marshes, coastal bluffs, tidal flats, sloughs; leaves ± fleshy; North Coast to South Coast, deltaic Great Central Valley (Suisun)
 3. Stems woody in proximal 3–15 dm, erect; phyllaries appressed to head except for short, erect tips, tip < 3 mm long; tidal wetlands; Central Coast (San Francisco Bay) *G. stricta* var. *angustifolia*
 - 3' Stems herbaceous or woody in proximal 0–1 dm, erect, decumbent, or prostrate; phyllaries generally spreading, recurved, or coiled; widespread
 4. Stems erect, 6–20 dm; salt marshes, sloughs
 5. Leaves on flowering stems generally widest at base or of ± equal width throughout; Deltaic Great Central Valley (Suisun) *G. xpaludosa*
 - 5' Leaves on flowering stems generally widest at rounded tip or ± equally wide at tip and base but narrower in middle of leaf; North Coast *G. stricta* var. *stricta* (2)
 - 4' Stems prostrate, decumbent, or erect, if erect, stems 1–6 dm; dunes, coastal bluffs
 6. Plants decumbent or erect; leaves generally sessile, sometimes clasping stems, ± same width throughout or widest near base; North Coast to South Coast, Channel Islands *G. stricta* var. *platyphylla*

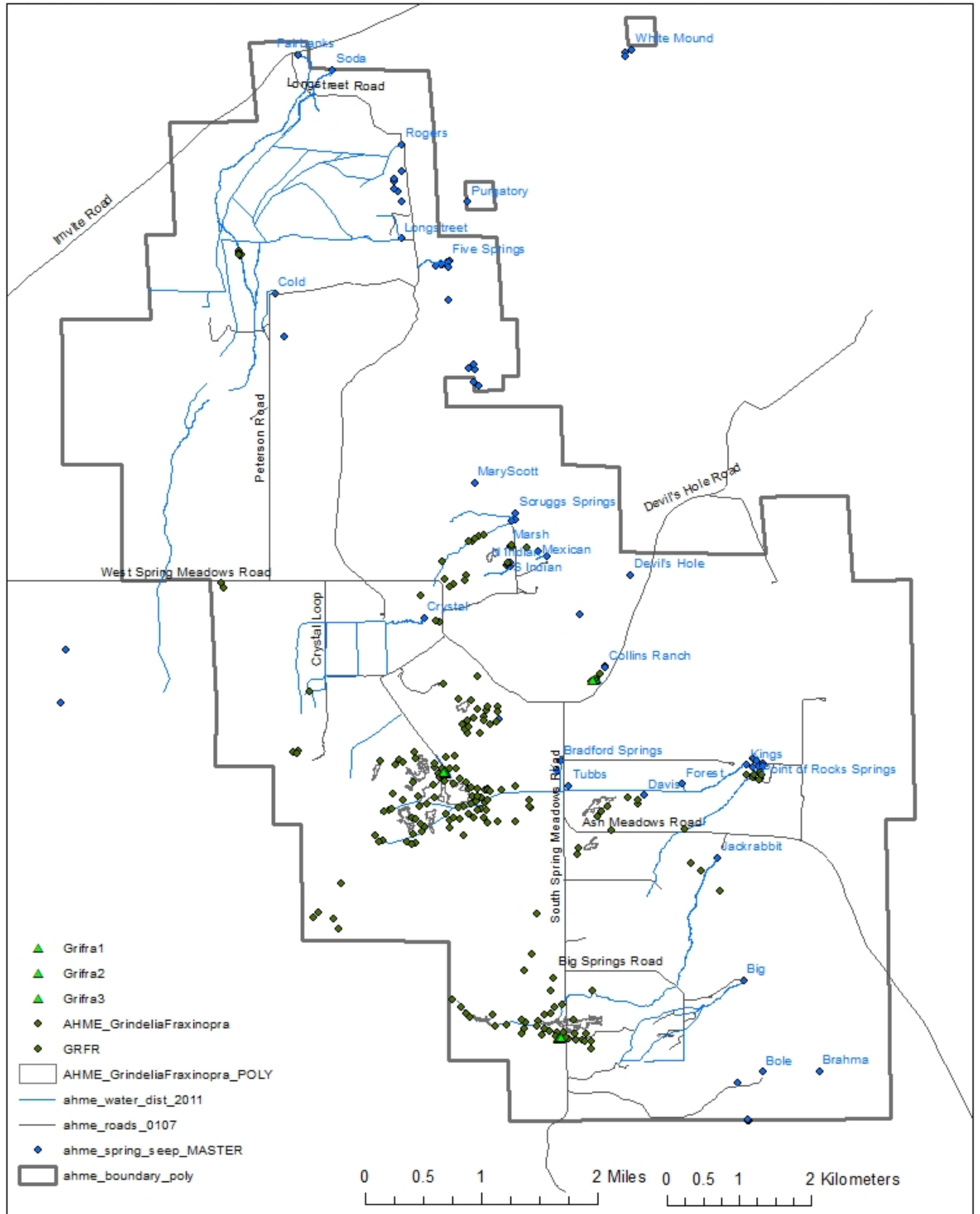
***Grindelia fraxinipratensis* Reveal & Beatley**

- 6' Plants decumbent; leaves generally tapered to petioles, widest at rounded tip; North Coast..... *G. stricta* var. *stricta* (2)
- 2' Plants of fields, grassland, woodland, serpentine soils, disturbed areas, or interior wetlands; leaves not fleshy; widespread (absent from Suisun delta)
7. Phyllaries flattened throughout, gradually tapered to tips; phyllary tips erect; plants generally ± hairy
8. Heads 7–10 mm diam; rays 8–9 mm; Peninsular Ranges (San Diego Co.) *G. hallii* (2)
- 8' Involucres 7–25 mm diam; rays 8–20 mm; North Coast Ranges, Great Central Valley, Central Western California *G. hirsutula*
- 7' Phyllaries flattened only at bases, rounded in x-section distally, abruptly narrowed to tips; phyllary tips spreading, reflexed, or coiled; plants generally glabrous
9. Heads ± obconic; e Mojave Desert, wet clay of meadows, woodland borders ***G. fraxinipratensis***
- 9' Heads bell-shaped or hemispheric, widening abruptly at the base; widespread
10. Phyllaries appressed to head for > 3/4 length, reflexed or coiled portion < 3 mm; Peninsular Ranges (San Diego Co.) *G. hallii* (2)
- 10' Phyllaries appressed to head for < 1/2 length, spreading, reflexed, or coiled portion > 5 mm; widespread
11. Outer phyllaries reflexed, curved, or coiled < 270° *G. camporum* (2)
- 11' > 75% of phyllaries coiled or recurved 270–360° or more
12. Plants 6–25 dm; mature involucre bell-shaped to hemispheric, 15–22 mm diam; San Joaquin Valley, South Coast (geog subset of sp.) *G. camporum* (2)
- 12' Plants 1–5 dm; mature involucre bell-shaped, 7–12 mm diam; Cascade Range, Modoc Plateau *G. nana*

AMNWR Rare Plant Occurrences

Last updated K. Tanner 2/26/2014

Grindelia fraxinipratensis (*Grindelia fraxino-pratensis*)



Ivesia kingii* S. Watson var. *eremica

(Coville) Ertter

ASH MEADOWS MOUSETAILS

Rosaceae

Status:

Global/State ranks G3T1T2Q, S1S2

NNHP: At-risk list

NNPS: Threatened

State: Critically endangered

BLM: Sensitive

USFWS: Threatened

Habitat: Alkaline, moist to saturated clay soils in open flats, meadows, drainage areas, springside bluffs. 655 - 716 meters (2,149 - 2,349 feet)

Counties:

Nye

Life Form:

Dicot

perennial herb

Bloom period:

May - August



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***Ivesia kingii* S. Watson var. *eremica* (Coville) Ertter**

Plant associates: *Anemopsis californica*, *Atriplex confertifolia*, *Centaureum namophilum*, *Cirsium mohavense*, *Distichlis spicata*, *Fraxinus velutina*, *Iva acerosa*, *Juncus balticus*, *Prosopis*

Jepson eFlora Treatment and Key:

Barbara Ertter 2012. *Ivesia*, in Jepson Flora Project (eds.) Jepson eFlora, http://ucjeps.berkeley.edu/cgi-bin/get_IJM.pl?tid=72590, accessed on Jan 19 2014. Reprinted with permission from the Jepson Herbarium, UC Berkeley. *Note that these treatments and keys describe California taxa and may not be a perfect match for Nevada material.*

Ivesia

Perennial herb, glandular; odor resinous. Leaf: generally basal, odd-1-pinnately compound, generally \pm cylindrical; cauline generally alternate, reduced; leaflets 4–80 per side, generally overlapped, generally divided \pm to base. Inflorescence: cyme; pedicel bractlets 0. Flower: receptacle generally not stalked; hypanthium shallow or deep, bractlets (0)5, generally $<$ sepals; petals generally 5, 1–5(7) mm, linear to obovate or round, acute to rounded; stamens 5–20(40), filaments generally thread-like; pistils 1–8(20), ovary superior, style attached below fruit tip, base \pm rough-thickened. Fruit: achene.

Ivesia kingii

Plant rosetted, glabrous or short-appressed-hairy, glaucous or not; caudex generally simple. Stem: decumbent to ascending, 15–40 cm. Leaf: 7–15 cm; sheathing bases generally strigose; leaflets 30–50 per side, overlapped but distinct, lobes $<$ 4, 2–6 mm, oblanceolate to obovate; cauline leaves 4–13. Inflorescence: open; clusters generally $<$ 10, loosely head-like, 10–20 mm wide, generally $<$ 5-flowered; pedicels 3–25 mm, straight. Flower: 8–12 mm wide; hypanthium length \pm 1/2 width; petals 3–5 mm, $>$ sepals, \pm obovate, white; stamens 20; pistils 2–6. Fruit: 2–2.5 mm, smooth, light brown.

Moist alkaline clay; 1200–2100 m. n East of Sierra Nevada; to Utah. Jun–Aug [Online Interchange] {CNPS list}

Unabridged note: ***Ivesia kingii* var. *eremica* (Coville) Ertter, Ash Meadows mousetails (western Nevada), has branched caudex, denser hairs, more tightly overlapped leaflets.**

Key to *Ivesia*

1. Leaf \pm flat, leaflets toothed or lobed generally $<$ 3/4 to base, generally \pm separate — plants rosettes or hanging clumps
 2. Stamens 15–40 — s High Sierra Nevada, San Bernardino Mountains, Peninsular Ranges, East of Sierra Nevada, Desert Mountains *I. saxosa*
 - 2' Stamens 5–10
 3. Hypanthium bractlets 5; Modoc Plateau, adjacent High Sierra Nevada *I. baileyi*
 4. Petals pale yellow; hypanthium bractlets \pm = sepals var. *baileyi*
 - 4' Petals white; hypanthium bractlets \pm $<$ 1/2 sepals var. *beneolens*
 - 3' Hypanthium bractlets generally 0; Desert Mountains
 5. Hypanthium width \leq length, receptacle stalked in pistil-bearing portion; n Desert Mountains *I. arizonica* var. *arizonica*
 - 5' Hypanthium width $>$ 2 \times length; receptacle not stalked; e Desert Mountains *I. patellifera*

Ivesia kingii S. Watson var. *eremica* (Coville) Ertter

- 1' Leaf ± cylindric, leaflets generally lobed ± to base, overlapped
- 6. Stamens 10–20 (if 10, cauline leaves ≥ 3)
 - 7. Leaflets < 8 per side; stems hanging to ± matted; caudex few- to many-branched; rock outcrops
 - 8. Leaflet lobes < 4; petals white; San Jacinto Mountains *I. callida*
 - 8' Leaflet lobes 3–6; petals yellow; e Desert Mountains *I. jaegeri*
 - 7' Leaflets > 10 per side; stems decumbent to erect; caudex 0–few-branched; meadows, sandy flats
 - 9. Leaflets generally 15–20 per side; sheathing leaf bases glabrous; stamens 10–16, filament ± < 1 mm; style < 1.5 mm
 - 10. Petals 4(5), pale yellow; inflorescence not red-tinged; s High Sierra Nevada
I. campestris
 - 10' Petals 5, white or pink-tinged; inflorescence often red-tinged; c&s High Sierra Nevada
I. unguiculata
 - 9' Leaflets ≥ 20 per side; sheathing leaf bases generally ± strigose; stamens 15–20; filament 1–4 mm; style ± > 2 mm
 - 11. Inflorescence of separate flowers or generally < 5-flowered clusters; pedicels generally > 5 mm; leaflets generally 30–80 per side
 - 12. Leaf mousetail-like, leaflets indistinct, obscured by dense, silvery hairs, lobes < 1.5 mm; stamens 15; pistil 1; granitic sand — High Sierra Nevada, Transverse Ranges, San Jacinto Mountains *I. santolinoides*
 - 12' Leaf not mousetail-like, leaflets overlapped but distinct, not obscured by hairs, lobes ≥ 2 mm; stamens 20; pistils ≥ 2; meadows
 - 13. Herbage hairs ± 0 or appressed, < 1 mm; petals ± obovate; alkali meadows; n East of Sierra Nevada *I. kingii* var. *kingii*
 - 13' Herbage hairs spreading, < 4 mm; petals ± oblanceolate; generally on serpentine clays; c Klamath Ranges *I. pickeringii*
 - 11' Inflorescence of generally > 5-flowered clusters; pedicels generally < 3 mm (except lowest); leaflets 20–35 per side
 - 14. Stem 10–20 cm, ± decumbent; leaves generally 4–8 cm, cauline ± 2; filament ± flat; San Bernardino Mountains *I. argyrocoma* var. *argyrocoma*
 - 14' Stem generally > 20 cm, decumbent to erect; leaves > 8 cm, cauline ≥ 3; filament thread-like, not flat; n High Sierra Nevada, Modoc Plateau
 - 15. Petals white; hypanthium length ≥ width; hairs of stem base ± spreading, 2–4 mm *I. sericoleuca*
 - 15' Petals yellow; hypanthium length ≤ width; hairs of stem base ascending, < 2 mm *I. aperta*
 - 16. Petals 2–3 mm, oblanceolate; filament 1–1.5 mm; n High Sierra Nevada (except Dog Valley), s Modoc Plateau var. *aperta*
 - 16' Petals generally 4–7 mm, ± obovate; filament 2–4 mm; n High Sierra Nevada (Dog Valley, e Sierra Co.) var. *canina*
- 6' Stamens 5 or 10; cauline leaves 1–3
 - 17. Hypanthium bractlets > sepals — Klamath Ranges (Castle Crags) *I. longibracteata*
 - 17' Hypanthium bractlets ± 1/2 sepals

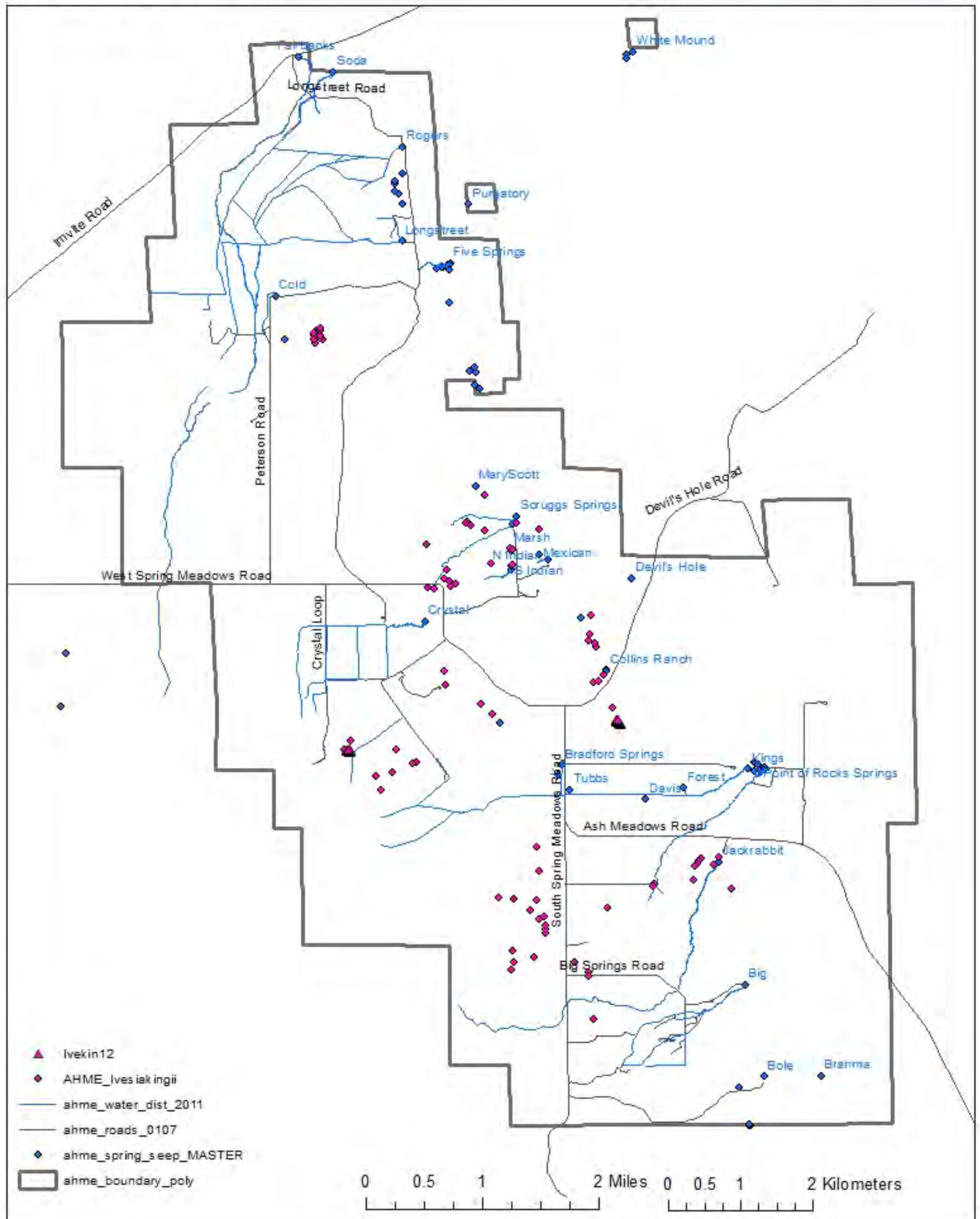
Ivesia kingii S. Watson var. *eremica* (Coville) Ertter

- 19' Stamens 5; pistils generally < 5
 - 20. Petals white to pale ± yellow, linear, ± 1 mm; plant densely hairy, glands not obvious; 1400–1800 m; Modoc Plateau *I. paniculata*
 - 20' Petals yellow, oblanceolate, ± 2 mm; plant moderately hairy, glands many; 2700–4000 m; n&c High Sierra Nevada, White and Inyo Mountains *I. shockleyi* var. *shockleyi*
- 18' Inflorescence of 1–few generally head-like, 3–20-flowered clusters (becoming more open in *Ivesia webberi*); plant generally rosetted from 0–few-branched caudex; pedicels straight in fruit; sheathing leaf-bases hairy or not
 - 21. Cauline leaves 2, ± opposite; leaflets 4–8 per side, lobes linear to lanceolate; 1500–1900 m — s-most Modoc Plateau, adjacent n High Sierra Nevada *I. webberi*
 - 21' Cauline leaves generally 1 or alternate; leaflets > 8 per side, lobes oblanceolate to ± round; > 1800 m
 - 22. Leaf mousetail-like, leaflets indistinct, < 1 mm, hidden by dense, silvery hairs; petals 1–2 mm — c&s High Sierra Nevada *I. muirii*
 - 22' Leaf not mousetail-like, leaflets overlapped but distinct, generally > 1 mm, ± glabrous to ± hairy; petals >= 2 mm
 - 23. Stamens 10; sheathing leaf-bases generally ± strigose; hypanthium length ± < 1/2 width — c&s High Sierra Nevada *I. pygmaea* (2)
 - 23' Stamens 5; sheathing leaf-bases not strigose (± glabrous or glandular); hypanthium length > 1/2 width
 - 24. Hypanthium length >= width; petals narrow-oblanceolate; pistils generally 2–4; fruit ± 2 mm, mottled brown *I. gordonii*
 - 25. Stems ascending to erect, generally not ± red var. *alpicola*
 - 25' Stems prostrate to ascending, dark ± red var. *ursinorum*
 - 24' Hypanthium length ± < width; petals ± obovate; pistils generally 5–15; fruit 1–1.5 mm, not mottled *I. lycopodioides*
 - 26. Leaflet lobes ± 1 mm, ± round, ± glabrous; petals 2–3 mm — rocky areas; n&c High Sierra Nevada, East of Sierra Nevada (Sweetwater Mtns) var. *lycopodioides*
 - 26' Leaflet lobes >= 1 mm, narrow-oblanceolate to obovate, often ± hairy; petals generally > 3 mm
 - 27. Leaflet lobes 2–8 mm, ± glabrous to sparsely hairy, bristle-tip 0–0.5 mm; wet meadows; c&s High Sierra Nevada var. *megalopetala*
 - 27' Leaflet lobes 1–3 mm, moderately to densely hairy, bristle-tip generally 0.5–1 mm; vernal moist, rocky areas; c&s High Sierra Nevada, White and Inyo Mountains var. *scandularis*

AMNWR Rare Plant Occurrences

Ivesia kingii var. *eremica*

Last updated K. Tanner 2/21/2014



Mentzelia leucophylla Brandegees

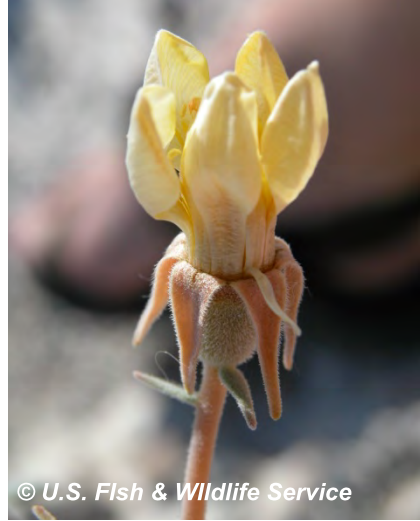
ASH MEADOWS BLAZINGSTAR

Loasaceae

Status:

Global/State ranks G1Q, S1
NNHP: At-risk list
NNPS: Threatened
State: Critically endangered
BLM: Sensitive
USFWS: Threatened

Habitat: Alkaline, salt-crusted, often dry, hard clay or sandy clay soils.
Flats, drainage areas, low bluffs. 671 - 716 meters (2,201 - 2,349 feet)



Counties:

Nye

Life Form:

Dicot
perennial herb

Bloom period:

July - October



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***Mentzelia leucophylla* Brandegee**



Plant associates: *Astragalus phoenix*, *Atriplex confertifolia*, *Enceliopsis nudicaulis corrugata*, *Haplopappus acradenius*

Jepson eFlora Treatment and Key:

Joshua M. Brokaw, John J. Schenk & Barry Prigge 2012. *Mentzelia*, in Jepson Flora Project (eds.) *Jepson eFlora*, http://ucjeps.berkeley.edu/cgi-bin/get_IJM.pl?tid=33271, accessed on Jan 19 2014. Reprinted with permission from the Jepson Herbarium, UC Berkeley. *Note that these treatments and keys describe California taxa and may not be a perfect match for Nevada material.*

***Mentzelia* (treatment for genus only; none available for *M. leucophylla*)**

Annual to perennial herb; hairs barbed to needle-like, not stinging; stems pale pink or generally \pm white, branched or not. Leaf: linear to ovate, entire to pinnate-lobed; basal in rosettes, generally petioled; cauline generally sessile, \pm reduced distally on stem. Inflorescence: generally cyme (or flower 1); bracts green to white, margin green. Flower: sepals lanceolate to deltate, persistent; petals generally 5, free, white to yellow or orange; stamens generally many, \pm free, generally unequal, inner filaments generally thread-like; outermost stamens opposite sepal lobes generally modified, \pm widened, or petal-like with anther or not; ovary generally cylindrical, placentas generally 3, style thread-like, stigma 3-furrowed or -lobed. Fruit: capsule, cup-, barrel-, or urn-shaped to narrowly cylindrical, occasionally curved. Seed: generally many, shape variable.

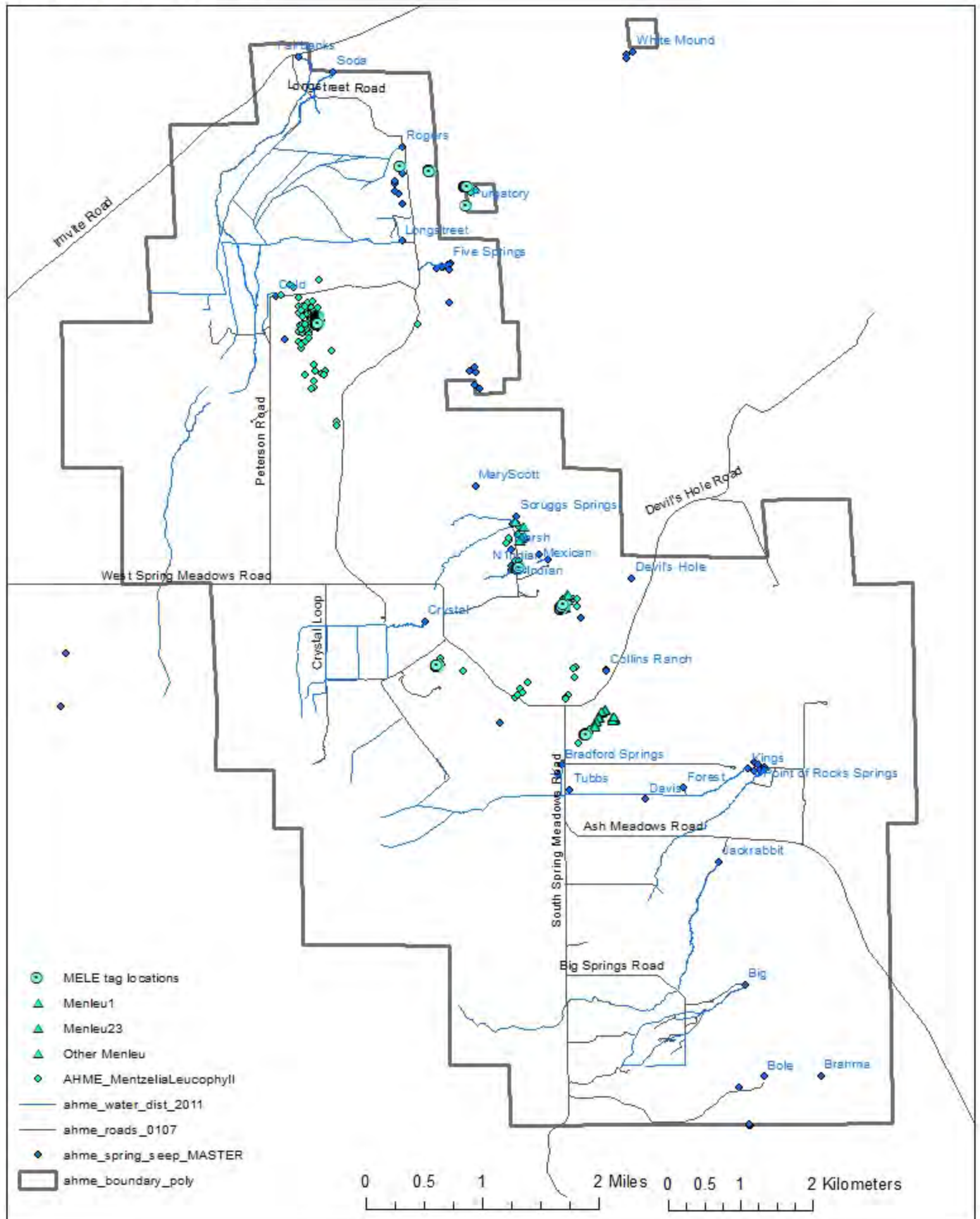
Mentzelia leucophylla Brandege

- 22. Seeds without conspicuous recurved flap over attachment scar; seed coat cells pointed or domed, in age > 1/2 tall as wide on seed surface edges *M. jonesii*
- 22' Seeds with conspicuous recurved flap over attachment scar; seed coat cells domed, in age < 1/2 tall as wide on seed surface edges *M. nitens*
- 17' Flower bracts toothed to lobed or flower bracts entire with ± white base and green margin
- 23. Flower bracts green only
- 24. Styles > 15 mm
- 25. Petals generally 8–17 mm wide; c&s Sierra Nevada Foothills, s High Sierra Nevada
M. crocea
- 25' Petals generally 16–33 mm wide; San Joaquin Valley, e San Francisco Bay Area, n Inner South Coast Ranges *M. lindleyi*
- 24' Styles < 15 mm
- 26. Petals generally < 8 mm
- 27. Petals orange to orange-yellow, base generally red to orange; flower bracts 3–7-toothed to lobed (entire); fruit generally curved < 40° *M. veatchiana* (3)
- 27' Petals yellow, base generally orange; flower bracts 3-toothed to entire; fruit generally curved < 180° *M. albicaulis* (4)
- 26' Petals generally ≥ 8 mm
- 28. Petals yellow only; w Mojave Desert *M. eremophila* (2)
- 28' Petals orange to yellow, base red to orange; s Sierra Nevada Foothills, s San Joaquin Valley, s Outer South Coast Ranges, n Western Transverse Ranges
M. pectinata
- 23' Flower bracts ± white at base, margin green
- 29. Flower bracts ± concealing fruits, mostly white-scarious; inflorescence dense *M. congesta*
- 29' Flower bracts not concealing fruits, ± white below middle; inflorescence open to ± dense
- 30. Petals generally > 8 mm, yellow, base generally orange; seed coat cells domed, in age ± 1/2 tall as wide on seed surface edges
- 31. Pine/oak woodland; s San Francisco Bay Area, South Coast Ranges, Western Transverse Ranges, w San Gabriel Mountains *M. gracilentia*
- 31' Desert scrub, Joshua-tree woodland; San Gabriel Mountains, e Peninsular Ranges, sw Mojave Desert, w Sonoran Desert *M. ravenii* (2)
- 30' Petals generally < 8 mm, orange to yellow, base generally red to orange; seed coat cells generally pointed or domed, in age > 1/2 tall as wide on seed surface edges
- 32. Styles generally < 3.5 mm; longest mature fruit generally > 10 mm
- 33. Flower bracts 3-toothed to entire; ± white base of bracts faint, small; longest mature fruit generally > 15 mm, generally curved < 180°; below 2300 m *M. albicaulis* (4)
- 33' Flower bracts 3–7-toothed; ± white base of bracts prominent, generally conspicuously extending outwards from midvein; longest mature fruit generally < 17 mm, curved < 45°; 600–3400 m *M. montana*
- 32' Styles generally ≥ 3.5 mm; longest mature fruit generally > 15 mm
- 34. Petals orange to orange-yellow, base generally red to orange; flower bracts 3–7-toothed to lobed (entire) *M. veatchiana* (3)
- 34' Petals yellow, base generally orange; flower bracts 7-toothed to entire
- 35. Flower bracts 3-toothed to entire, width < 2/3 length; ± white base of bracts faint, small; fruit generally curved < 180° *M. albicaulis* (4)
- 35' Flower bracts 3–7-toothed, width > 1/3 length; ± white base of bracts prominent, generally conspicuously extending outwards from midvein; fruit generally curved < 40°
- 36. Stem generally spreading; desert scrub, Joshua-tree woodland *M. ravenii* (2)
- 36' Stem generally erect; pine/oak woodland, grassland *M. veatchiana* (3)

AMNWR Rare Plant Occurrences

Mentzelia leucophylla

Last updated K. Tanner 2/21/2014



Nitrophila mohavensis Munz & J.C. Roos

AMARGOSA NITERWORT

Amaranthaceae

Status:

Global/State ranks G1, S1
NNHP: At-risk list
NNPS: Endangered
State: Critically endangered
BLM: Sensitive
USFWS: Endangered

Habitat: Alkaline clay flats in poorly drained and seepage areas.
625 - 658 meters (2,051 - 2,159 feet)

Counties:

Nye. Also in CA.

Life Form:

Dicot
perennial herb

Bloom period:

May - October



© Sarah Kulpa



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Nitrophila mohavensis Munz & J.C. Roos



Jepson eFlora Treatment and Key:

Margriet Wetherwax, Dieter H. Wilken & Noel H. Holmgren 2012. *Nitrophila*, in Jepson Flora Project (eds.) Jepson eFlora, http://ucjeps.berkeley.edu/cgi-bin/get_IJM.pl?tid=34674, accessed on Jan 24 2014. Reprinted with permission from the Jepson Herbarium, UC Berkeley. *Note that these treatments and keys describe California taxa and may not be a perfect match for Nevada material.*

Nitrophila

Perennial herb, glabrous, rhizomed. Stem: decumbent to erect, ± ribbed. Leaf: opposite, sessile to clasping, linear to ovate, fleshy. Inflorescence: axillary, flowers 1–3; bractlets 1 or 2 per flower. Flower: calyx 5(7)-parted, enclosing fruit, papery, lobes erect, overlapping, ovate, back ribbed, persistent in fruit; stamens 5, included; style slender, = ovary, stigmas 2. Fruit: indehiscent, ± 2 mm. Seed: vertical, lenticular, black or brown.

N. mohavensis

Stem: many, generally erect. Leaf: ± clasping. Inflorescence: bracts 2; flowers 1 in axils, sessile. Flower: calyx 2–3.5 mm, ± pink. Seed: ± 1 mm, shiny. Alkaline flats; 300–750 m. n Mojave Desert (Amargosa Desert); western Nevada.

Key to *Nitrophila*

- Internodes < leaves, leaves (2)3–4.5 mm, widely ovate; plant 3–10 cm *N. mohavensis*
- Internodes > leaves, leaves 5–30 mm, ± linear; plant 7–30 cm *N. occidentalis*

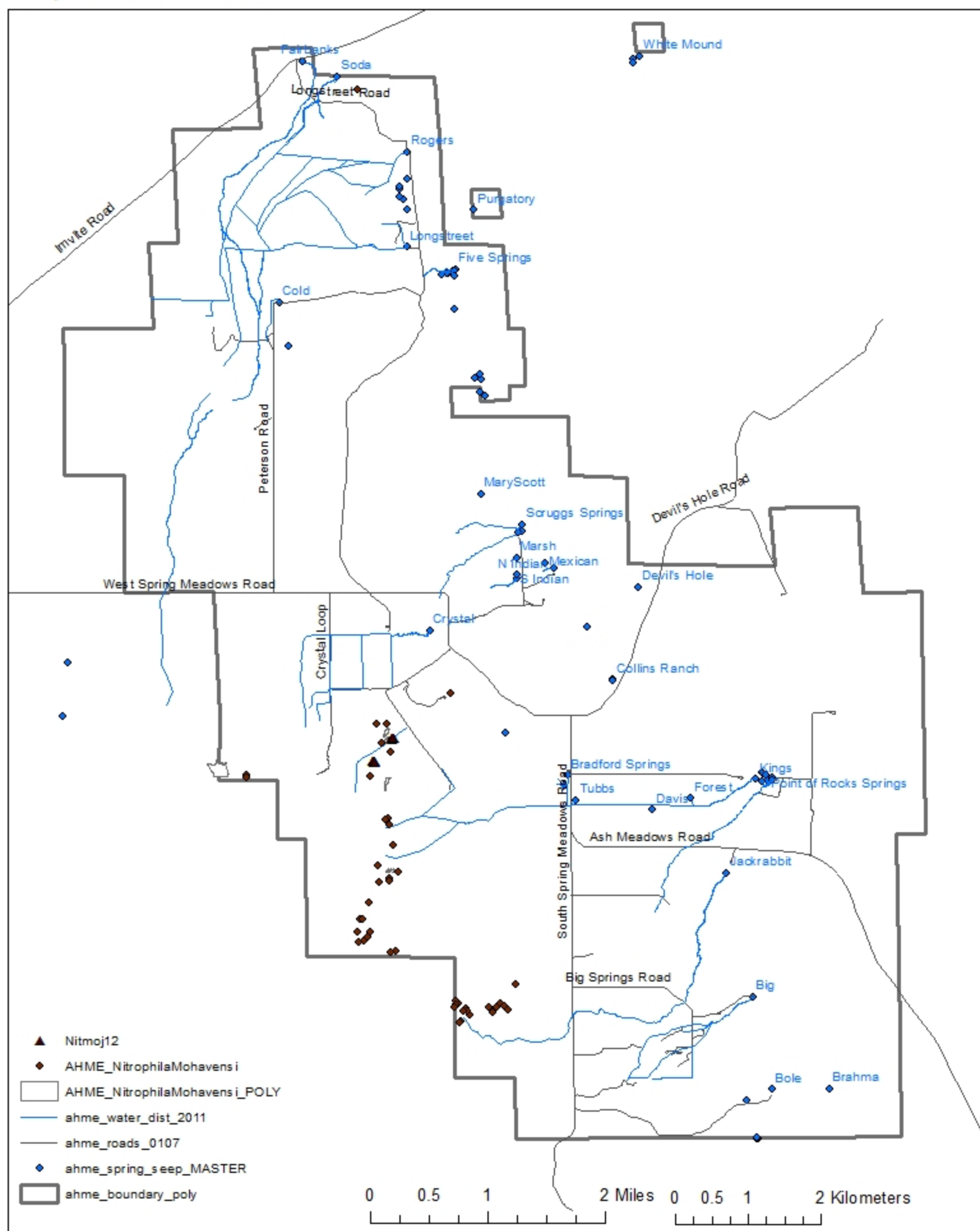
BEWARE OF POTENTIAL LOOK-ALIKE *Halogeton glomeratus*



AMNWR Rare Plant Occurrences

Nitrophila mohavensis

Last updated K. Tanner 2/21/2014



Spiranthes infernalis Sheviak

ASH MEADOWS LADY'S TRESSES

Orchidaceae

Status:

Global/State ranks G1, S1
NNHP: At-risk list
NNPS: Threatened
State: unlisted
BLM: unlisted
USFWS: unlisted

Habitat: Wet or seasonally wet meadows with alkaline soils.
668 - 695 meters (2,191 - 2,280 feet)



Counties:

Nye

Life Form:

Monocot tuberous
perennial herb

Bloom period:

May - August



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***Spiranthes infernalis* Sheviak**

Plant associates: *Anemopsis californica*, *Centaureum namophilum*, *Chloropyron tecopense*, *Distichlis spicata*, *Eleocharis rostellata*, *Fimbristylis thermalis*, *Fraxinus velutina*, *Grindelia fraxinipratensis*, *Helianthus nuttallii*, *Juncus balticus*, *Lythrum californicum*, *Mentzelia leucophylla*, *Prosopis pubescens*, *Schoenus nigricans*, *Spartina gracilis*, *Sporobolus airoides*, *Tamarix ramosissima*, *Thelypodium integrifolium*

Jepson eFlora Treatment (*Spiranthes* genus only; *S. infernalis* not listed):

Ronald A. Coleman, Dieter H. Wilken & William F. Jennings 2012. *Spiranthes*, in Jepson Flora Project (eds.) *Jepson eFlora*, http://ucjeps.berkeley.edu/cgi-bin/get_IJM.pl?tid=10976, accessed on Jan 24 2014. Reprinted with permission from the Jepson Herbarium, UC Berkeley. *Note that these treatments and keys describe California taxa and may not be a perfect match for Nevada material.*

Spiranthes

Leaf: at flower 0 or \pm basal. Inflorescence: spike, generally dense, flowers in spiral; bracts leaf-like, < to > flowers, gradually reduced upward, linear to oblong. Flower: sepals, lateral petals narrow-lanceolate; upper sepal \pm fused to lateral petals, together hood-like, enclosing column, lower \pm free, \pm = lip, adherent to hood; lip not spurred, pouch-like, deeply grooved below middle, concave above; column < lip, tip with anther on back. Fruit: spreading to ascending.

\pm 40 species: especially America, also Japan, Australia, New Zealand. (Greek: coiled flowers)

Plants in Sierra Nevada may be hybrids between species below, for which *Spiranthes stellata* P.M. Brown et al. might be correct.

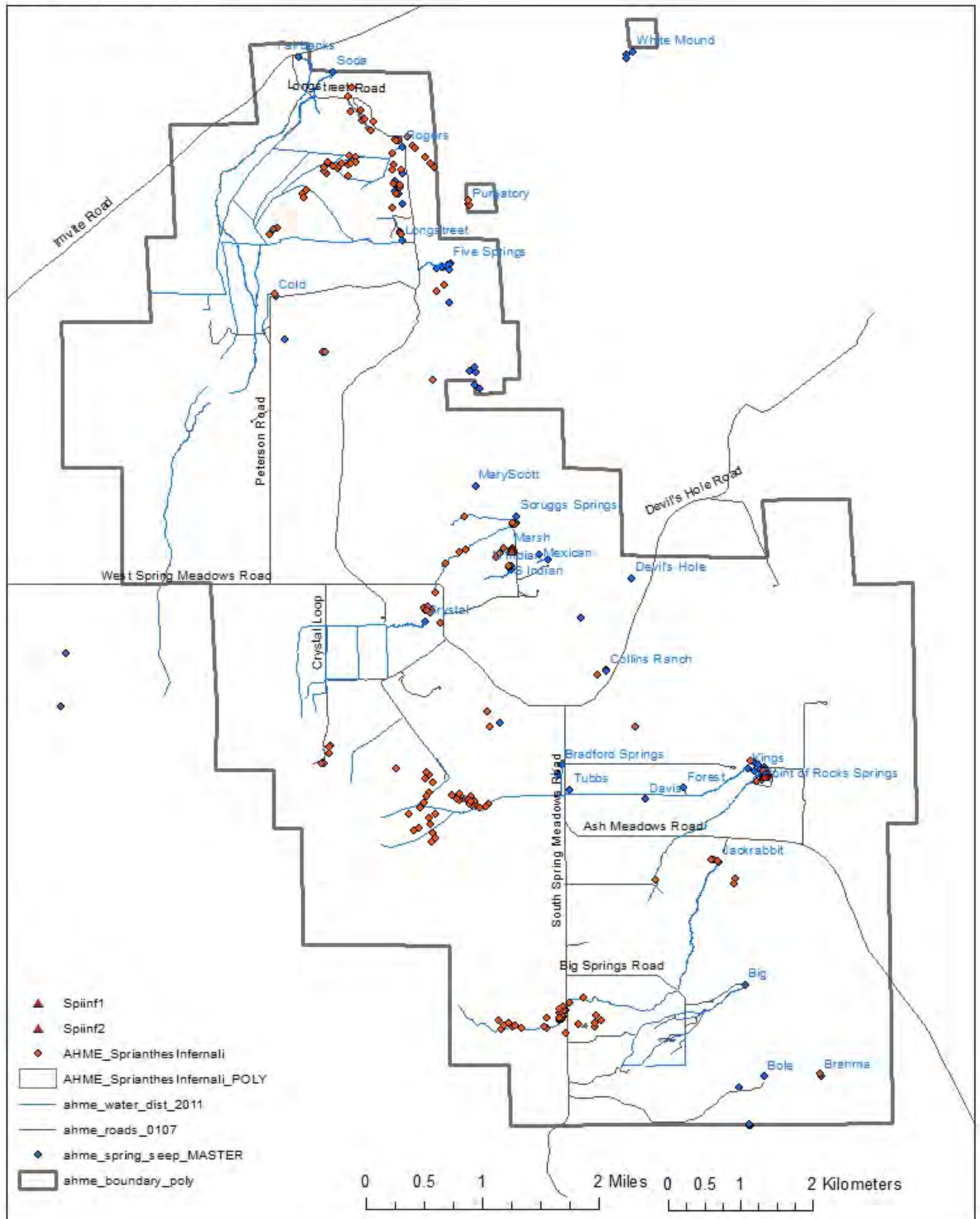
Unabridged references: [Sheviak 1990 *Rhodora* 92:213–231]

Unabridged note: Plants in Sierra Nevada may be hybrids between species below, for which *Spiranthes stellata* P.M. Brown, Dueck, & K.M. Cameron might be correct.

AMNWR Rare Plant Occurrences

Spiranthes infernalis

Last updated K. Tanner 2/21/2014



Zeltnera namophila (Reveal et al.) G. Mans.

SPRING-LOVING CENTAURY

Gentianaceae

Synonyms: *Centaurium namophilum*

Status:

Global/State ranks G2Q, S2
NNHP: At-risk list
NNPS: Threatened
State: Critically endangered
BLM: Sensitive
USFWS: Threatened

Habitat: Alkaline, moist to wet clay soils in drainage areas, seeps, meadows. 640 - 707 meters (2,100 - 2,320 feet)



Counties:

Nye

Life Form:

Dicot
annual herb

Bloom period:

July - September



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***Zeltnera namophila* (Reveal et al.) G. Mans.**

Plant associates: *Anemopsis californica*, *Atriplex*, *Baccharis*, *Chloropyron tecopense*, *Cirsium*, *Distichlis spicata*, *Fraxinus*, *Iva*, *Juncus balticus*, *Nitrophila occidentalis*, *Prosopis*, *Pyrocoma*, *Tamarix*, *Typha*

Jepson eFlora Treatment and Key:

James S. Pringle 2012. *Zeltnera*, in Jepson Flora Project (eds.) Jepson eFlora, http://ucjeps.berkeley.edu/cgi-bin/get_IJM.pl?tid=85880, accessed on Jan 18 2014. Reprinted with permission from the Jepson Herbarium, UC Berkeley. *Note that these treatments and keys describe California taxa and may not be a perfect match for Nevada material.*

Zeltnera

Annual, glabrous. Stem: erect, generally branched. Leaf: cauline, opposite (sometimes also basal). Inflorescence: cyme. Flower: parts in 4s or generally 5s; calyx lobes >> tube (discounting thin membrane between lobes in *Zeltnera davyi*), appressed to corolla tube, generally not keeled; corolla salverform, white or generally pink, lobes ≤ tube, ± entire, scales 0, nectaries pits 0 (nectaries elsewhere 0); stamens often initially curved to 1 side, dehisced anthers spirally twisted; ovary sessile, style generally thread-like, deciduous, entire or cleft < 1 mm, stigmas 1, 2-lobed, or 2, stigmas or lobes wedge- to fan-shaped.

Z. namophila

Plant (5)15–60 cm. Leaf: cauline, 10–50 mm, linear to thread-like. Inflorescence: open, ± elongate, panicle-like; pedicels generally 0–20 mm. Flower: corolla 13–18 mm, lobes 5–8 mm, lanceolate, tip obtuse to acute; stigma 1, ± 2-lobed. 2n=34. Wet alkaline meadows, generally near springs or lakes or in alkaline marshes; < 700 m. East of Sierra Nevada, Mojave Desert; to Nevada. Jul–Sep.

Key to *Zeltnera*

1. Pedicels generally 10–70 mm, generally > closed corollas; flower parts generally in 4s *Z. exaltata*
 - 1' Pedicels 0–40(60) mm, generally < closed corollas (except in some robust plants of *Zeltnera venusta*); flower parts in 5s
 2. Leaves linear to thread-like; stigma 1, ± 2-lobed ***Z. namophila***
 - 2' Leaves ovate or lanceolate to elliptic to oblanceolate or obovate; stigmas 1–2
 3. Pedicels of proximal, central flowers 0–10 mm, of other flowers generally 0–5 mm, of distal often 0
 4. Corolla lobes 2–7 mm, tips rounded; stigmas 2, wide-fan-shaped *Z. muehlenbergii*
 - 4' Corolla lobes (3)5–10 mm, tips acute to acuminate; stigma 1, lobes ± 2, wedge-shaped *Z. trichantha*
 - 3' Pedicels 2–40(60) mm
 5. Calyx lobes keeled; corolla lobes 3–7 mm *Z. davyi*
 - 5' Calyx lobes not keeled; corolla lobes (2)5–20 mm.
 6. Main stems from base generally several; basal leaves often rosetted, generally oblanceolate *Z. arizonica*
 - 6' Main stem from base generally 1; basal leaves 0 or generally not rosetted, narrow-ovate-oblong to lanceolate *Z. venusta*

AMNWR Rare Plant Occurrences

Last updated K. Tanner 2/21/2014

Zeltnera namophila
(*Centaureum namophilum*)

