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Revised Botanical Survey Report Dimitrov Project

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9/5/2019

Revised July 2020
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For
Hohman and Associates
Hydesville, CA

Signature: Kelsey McDonald **Date:** 9/5/2019

Revision July 2020

On June 19th, 2020, botanist Claire Brown visited the site of the *Tracyina rostrata* population reported below, on Humboldt County APN 210-044-017. This visit was intended as a monitoring visit, as well as one of personal interest to Claire as an opportunity to see this very rare species. There are only eight CNDDB occurrences of *Tracyina rostrata* recorded from Humboldt County, only two of which have been seen more recently than 1988. Furthermore, all eight of these occurrences are from the Jewett Rock, Alderpoint and Fort Seward USGS 7.5' Quadrangles, which are 10 miles south of the occurrence reported below.

Location data from the report below, as well as the flagging hung in the field by Kelsey and Kevin were used to locate the population on APN 210-044-017. However, no plants identifiable as *Tracyina rostrata* were found. Instead, Claire found a robust population (of hundreds of individuals) of an annual plant in the family Asteraceae that is identifiable to the genus *Crepis* but does not key out to or exactly match any species of *Crepis* described in The Jepson Manual (Baldwin et.al 2012) or in the eFlora of North America (eFNA 2020). The closest match is the species *Crepis pulchra*, of Eurasian origin, which is not yet included in these identification resources but has 10 records from Napa, Solano, and Contra Costa Counties listed in the Consortium of California Herbaria (CCH) (CCH1 2020). These plants, unlike *Tracyina rostrata*, have liguliflorous heads and distinctly keeled phyllaries.

Claire communicated these results to Kelsey Macdonald in late June 2020. Via these communications, Kelsey was able to determine that the plants Claire found are the same species identified as *Tracyina rostrata* in the report below. Therefore, the previously reported rare plant findings are redacted here in this revised report, and the *Tracyina rostrata* occurrence reported to CNDDB in 2019 will also be redacted.

A detailed description of the *Crepis* species found as well as additional photographs are found in Revised Attachment G, at the end of this document. Several specimens were pressed. Claire will keep one available at the NRM office in Eureka for inquiry, and others will be submitted to the UC Davis Center for Plant Diversity and the California Department of Food and Agriculture Botany Lab and Herbarium for accession and further identification.

Photo of 2019 Specimen (from report below)

Photo of 2020 Specimen (June 19, 2020)

Setting

The Dimitrov Cannabis Cultivation Project is located in Section 35 and 36, Township 1 North, Range 5 East, Section 1 and 2, Township 1 South, Range 5 East and Section 31, Township 1 North, Range 6 East, and Section Township 1 South, Range 6 East HB&M; Humboldt County, on the Iaqua Buttes USGS 7.5' quadrangle. The project area is located in Dinsmore CA, off Buck Mountain Road 6 miles from Highway 36. The biogeographic region can be described using a three-tiered hierarchy of province, region and sub-region. This site lies within the California Floristic Province, Northwestern California region, and North Coast sub-region. The area is about 136 acres and the elevation ranges from ~3,700 -4,200 feet. The area contains open grasslands dominated by native and non-native grasses, oak woodland, and some mixed coniferous forest. Slopes on the property are gentle to moderate, and the aspect is primarily south-facing.

Methods

Kelsey McDonald and Kevin Landaw conducted the botanical surveys for the Dimitrov NTMP on May 22, July 14, and July 19. Kelsey is a CNPS Certified Consulting Botanist, and she holds a M.S. in Natural Resources with a concentration in Environmental Science from Humboldt State University. Kelsey has taken relevant courses including conservation biology, ornithology, ecology, plant taxonomy, field botany, and plant biology. She has 5 years of botany and wildlife experience in Northern California. Kevin holds a B.S. in Botany from Humboldt State University, where he is currently a graduate student. Kevin has taken relevant courses including ecology, plant taxonomy, and plant biology.

The surveys were floristic in nature and seasonally appropriate, with an initial survey conducted during the spring to catch early-blooming species and a follow-up survey during the summer for later-blooming species. Approximately 31.5 field hours were spent on surveys. Surveys included systematic assessment of all potential habitats in the area based on maps, aerial photos, and visible environmental features such as canopy cover, slope, soil texture, aspect, hydrologic features, and associated vegetation. This survey protocol is based on the Protocol for Surveying and Evaluating Impacts to Special Status native Plant Populations and Natural Communities (CDFW 2018). A list of potential rare plants on CNPS lists 1 and 2 found within the 9-quad area as listed in CDFW BIOS and CNPS Inventory of Rare and Endangered Plants is available in Attachment A. Attachment B provides details on potential rare plants. Attachment C. lists all plants identified from botanical surveys. Attachment D contains a map of the botanical survey routes. Attachment E contains habitat photos of the area. Attachment F contains rare plant rank definitions.

Results

The property is composed of two parcels. The southern parcel (Fig.1) is larger and contains swaths of grassland (Fig. 3) interspersed by patches of oak woodland. The grassland contains both native and non-native grasses and is dominated by hedgehog dogtail grass (*Cynosurus echinatus*), ripgut grass (*Bromus diandrus*), blue wild rye (*Elymus glaucus*), California fescue (*Festuca californica*), and seaside barley (*Hordeum marinum*). Oregon white oak (*Quercus garryana*) woodlands (G4 S3) with an understory of California fescue (*Festuca californica*) occurred on the property. APN 210-144-011 contained an area where ~35 Oregon white oaks were recently cleared around the cultivation area (Photo 6). Diverse oak woodlands dominated by California black oak (*Quercus kelloggii*) (G4 S4) was also widespread on the property. The northern, smaller, parcel (Fig.2) is more heavily forested and is primarily covered by a mixture of Douglas fir (*Pseudotsuga menziesii*) and ponderosa pine (*Pinus ponderosa*) (G4 S4), with canyon live oak (*Quercus chrysolepis*).

During the course of the botanical survey two populations of beaked tracyina (*Tracyina rostrata* 1B.2) were discovered. One population was found near the border of the northern parcel (Fig. 4) and one in the southern parcel (Fig. 5). The population in the northern parcel was found growing along a disturbed roadside and former cultivation area. 90% of the individuals were in fruit, 10% in flower, with a total number of individuals at this site of ~800. The exact location of the property line was uncertain in this area. Associated species included Oregon white oak (*Quercus garryana),* deer brush *(Ceanothus integerrimus),* celery leaved lovage *(Ligusticum apiifolium),* oceanspray *(Holodiscus discolor),* blue wild rye *(Elymus glaucus),* gumweed (*Madia gracilis*), and hedgehog dogtail grass (*Cynosurus echinatus*). The population in the southern parcel was found in a disturbed south-facing slope in opening on the edge of mixed coniferous forest. 80% of the individuals were in fruit, 20% in flower, with a total number of individuals at this site of ~1500. Associated species included Ponderosa pine (*Pinus ponderosa*), Douglas fir *(Pseudotsuga menziesii),*black oak (*Quercus kelloggii),* canyon live oak (*Quercus chrysolepis*), Oregon white oak *(Quercus garryana*),gumweed *(Madia gracilis),* foxtail barley (*Hordeum murinum*), hedgehog dogtail grass *(Cynosurus echinatus),* California fescue *(Festuca californica),* blue wild rye *(Elymus glaucus),* sheep sorrel *(Rumex acetosella),* and snowberry (*Symphoricarpos albus).*

Beacked tracyina (*Tracyina rostrata*) was first discovered on the property on 7/14/2019. The identity of the species was confirmed and the populations were delineated on 7/19/2019. The rare plant was identified by its mostly inconspicuous ray flowers, lack of palea, annual habit, stems branched distally with branches exceeding main stem, sessile leaves, larger withered lanceolate leaves proximally, and tiny linear leaves distally. Both populations were flagged for avoidance and the landowner was asked to avoid development in these areas. The plants appeared to be thriving in disturbed areas around the greenhouse and other areas with low- to moderate-level use. For example, while the plants were not growing in the road, hundreds were growing on the side of the roads. The population is likely to continue to thrive as long as suitable habitat remains and the flagged areas are avoided. No mowing, piling of compost or other materials, or other major alterations to the habitat should occur in the flagged areas. All potential rare plant habitats around known cultivation sites were surveyed, and false negative surveys are unlikely.

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Attachment A: List of Potentially Occurring Sensitive Plant Species

Scientific Name	Common Name	CESA	FESA	CNPS	Blooming	Potential
Anisocarpus scabridus	scabrid alpine tarplant	None	None	1B.3	(Jun)Jul-Aug(Sep)	Yes
Arctostaphylos manzanita ssp. elegans	Konocti manzanita	None	None	1B.3	(Jan)Mar-May(Jul)	Yes
Astragalus umbraticus	Bald Mountain milk-vetch	None	None	2B.3	May-Aug	Yes
Calycadenia micrantha	small-flowered calycadenia	None	None	1B.2	Jun-Sep	Yes
Carex praticola	northern meadow sedge	None	None	2B.2	May-Jul	Yes
Epilobium oreganum	Oregon fireweed	None	None	1B.2	Jun-Sep	Yes
Erigeron maniopotamicus	Mad River fleabane daisy	None	None	1B.2	May-Aug	Yes
Erythranthe trinitiensis	pink-margined monkeyflower	None	None	1B.3	Jun-Jul(Aug)	Yes
Erythronium revolutum	coast fawn lily	None	None	2B.2	Mar-Jul(Aug)	Yes
Gilia capitata ssp. pacifica	Pacific gilia	None	None	1B.2	Apr-Aug	Yes
Harmonia doris-nilesiae	Niles' harmonia	None	None	1B.1	May-Jul	Yes
Hosackia yollabolliensis	Yolla Bolly Mtns. bird's-foot trefoil	None	None	1B.2	Jun-Aug	Yes
Howellia aquatilis	water howellia	None	FT	2B.2	Jun	Yes
Iliamna latibracteata	California globe mallow	None	None	1B.2	Jun-Aug	Yes

Attachment B: Potential Rare Plant Details

1. Scabrid alpine tarplant (*Anisocarpus scabridus*)

Status: CRPR 1B: Rare or Endangered in California and elsewhere, .3 not very endangered in CA. Not federally or state listed. State rank S3: imperiled, global rank G4: apparently secure.
Family: Asteraceae
Flowering: (Jun)Jul-Aug(Sep)
Habitat: Upper montane coniferous forest (metamorphic, rocky).
Habitat within Area: Potential habitat exists on rocky outcroppings.

2. Konocti manzanita (*Arctostaphylos manzanita ssp. elegans*)

Status: CRPR 1B: Rare or Endangered in California and elsewhere, .3 not very endangered in CA. Not federally or state listed. State rank S3: imperiled, global rank G3: vulnerable.
Family: Ericaceae
Flowering: (Jan)Mar-May(Jul)
Habitat: Chaparral, Cismontane woodland, Lower montane coniferous forest.
Habitat within Area: Potential in lower montane coniferous forest.

3. Bald mountain milk vetch (*Astragalus umbraticus*)

Status: CRPR 2B: Rare or Endangered in California, but more common elsewhere, .3 not very endangered in CA. Not federally or state listed. State rank S2: imperiled, global rank G3: vulnerable.
Family: Fabaceae
Flowering: May-Aug
Habitat: Cismontane woodland, Lower montane coniferous forest, sometimes roadside
Habitat within Area: Potential habitat exists along roads and in disturbed wooded areas.

4. Small-flowered calycadenia (*Calycadenia micrantha*)

Status: CRPR 1B: Rare, threatened or endangered in California and elsewhere, .2 moderately threatened in CA. Not federally or state listed. State rank S2: imperiled, global rank G2: Imperiled .
Family: Asteraceae
Flowering: Jun-Sep
Habitat: Chaparral, Meadows and seeps (volcanic), Valley and foothill grassland.
Habitat within Area: Potentially in open meadows.

5. Northern meadow sedge (*Carex praticola*)

Status: CRPR 2B: Rare or Endangered in California, but more common elsewhere, .2 moderately threatened in CA. No state or federal listing. State rank S2: imperiled. Global rank G5: secure.
Family: Cyperaceae
Flowering: May – July
Habitat: Meadows and seeps (mesic)
Habitat within Area: Habitat might exist in mesic areas of the property.

6. Oregon fireweed (*Epilobium oreganum*)

Status: CRPR 1B: rare, threatened, or endangered; .2 fairly endangered in CA. State rank S2: imperiled. Global rank G2: imperiled. No state or federal listing.
Family: Onagraceae
Flowering: Jun - Sept
Habitat: mesic. Bogs and fens, Lower montane coniferous forest, Meadows and seeps
Habitat within Area: Habitat might exist in mesic areas of the property.

7. Mad River fleabane daisy (*Erigeron maniopotamicus*)

Status: CRPR 1B: rare, threatened, or endangered; .2 fairly endangered in CA. State rank S2: imperiled. Global rank G2: imperiled. No state or federal listing.
Family: Asteraceae
Flowering: May-Aug
Habitat: Lower montane coniferous forest, Meadows and seeps (open, dry).
Habitat within Area: Potential habitat on NTMP in forested and wet meadows.

8. Pink-margined monkeyflower (*Erythranthe trinitiensis*)

Status: CRPR 1B: rare, threatened, or endangered; .2 not very endangered in CA. State rank S2: imperiled. Global rank G2: imperiled. No state or federal listing.
Family: Phrymaceae
Flowering: Jun-Jul(Aug)
Habitat: Cismontane woodland, Lower montane coniferous forest, Meadows and seeps, Upper montane coniferous forest.
Habitat within Area: Potential habitat exists in both open and forested sections of the NTMP.

9. Coast fawn lily (*Erythronium revolutum*)

Status: CRPR 2B: or Endangered in California, but more common elsewhere, .2 fairly endangered in CA. No state or federal listing. State Rank S3: vulnerable. Global Rank G4: apparently secure.
Family: Liliaceae
Flowering: Mar - Aug
Habitat: Mesic, streambanks, Bogs and fens, Broadleafed upland forest, North Coast coniferous forest
Habitat within Area: Potential habitat exists in the NTMP in forested and wet areas.

10. Pacific gilia (*Gilia capitata ssp. pacifica*)

Status: CRPR 1B: rare, threatened, or endangered, .2 fairly endangered in CA. Not federally or state listed. State rank S3: vulnerable, global rank G5: secure.
Family: Polemoniaceae
Flowering: Apr-Aug
Habitat: Coastal bluff scrub, Chaparral (openings), Coastal prairie, Valley and foothill grassland.
Habitat within Area: Potential habitat in the meadows on the property.

11. Niles' harmonia *(Harmonia doris-nilesiae*)
Status: CRPR 1B: Rare or Endangered in California and elsewhere, .1 seriosly threatened in California. S2: imperiled. Global rank G2: imperiled. No state or federal listing.
Family: Asteraceae
Flowering: May-Jul
Habitat: Chaparral, Cismontane woodland, Lower montane coniferous forest
Habitat within Area: Potential habitat in the woodland and coniferous forests on the property.

12. Yolla Bolly Mtns. bird's-foot trefoil (*Hosackia yollabolliensis*)
Status: CRPR 1B: rare, threatened, or endangered, .2 fairly endangered in CA. Not federally or state listed. S2: imperiled. Global rank G2: imperiled.
Family: Fabaceae
Flowering: Jun-Aug
Habitat: Meadows and seeps, Upper montane coniferous forest (openings).
Habitat within Area: Potential habitat in forest clearings and meadows on the property.

13. Water howellia (*Howellia aquatilis*)
Status: CRPR 2B: or Endangered in California, but more common elsewhere, .2 fairly endangered in CA. No state or federal listing. S2: imperiled. Global rank G3: vulnerable.
Family: Campanulaceae
Flowering: Jun
Habitat: Marshes and swamps (freshwater).
Habitat within Area: Potential habitat in the freshwater ponds on the property.

14. California globe mallow (*Iliamna latibracteata*)
Status: CRPR 1B: rare, threatened, or endangered, .2 fairly endangered in CA. Not federally or state listed. S2: imperiled. Global rank G2: imperiled.
Family: Malvaceae
Flowering: Jun-Aug
Habitat: Often in burned areas. Chaparral (montane), Lower montane coniferous forest, North Coast coniferous forest (mesic), Riparian scrub (streambanks)
Habitat within Area: Potential habitat may exist in the area.

Attachment C. Plant Species Observed

	Species Name	Common Name	Family	Date
Trees	Abies grandis	Grand fir	Pinaceae	5/22/2019
	Acer macrophyllum	Bigleaf maple	Sapindaceae	7/14/2019
	Alnus rhombifolia	White alder	Betulaceae	7/14/2019
	Arbutus menziesii	Madrone	Ericaceae	5/22/2019
	Calocedrus decurrens	Incense cedar	Cupressaceae	7/19/2019
	Pinus ponderosa	Ponderosa pine	Pinaceae	5/22/2019
	Populus trichocarpa	Black cottonwood	Salicaceae	7/14/2019
	Pseudotsuga menziesii	Douglas fir	Pinaceae	5/22/2019
	Quercus chrysolepis	Canyon live oak	Fagaceae	5/22/2019
	Quercus garryana	Oregon white oak	Fagaceae	5/22/2019
	Quercus kelloggii	California black oak	Fagaceae	5/22/2019
	Sequoia sempervirens (planted)	Coast redwood	Cupressaceae	5/22/2019
Shrubs	Amelanchier utahensis	Western serviceberry	Rosaceae	5/22/2019
	Arctostaphylos canescens	Hoary manzanita	Ericaceae	5/22/2019
	Arctostaphylos manzanita	Whiteleaf manzanita	Ericaceae	5/22/2019
	Berberis aquifolium	Oregon grape	Berberidaceae	5/22/2019
	Ceanothus arcuatus	Arching ceanothus	Rhamnaceae	7/14/2019
	Ceanothus integerrimus	Deer brush	Rhamnaceae	5/22/2019
	Frangula californica	California coffeeberry	Rhamnaceae	5/22/2019
	Holodiscus discolor	Oceanspray	Rosaceae	7/14/2019
	Phoradendron leucarpum	American mistletoe	Viscaceae	5/22/2019
	Ribes sanguineum	Red flowering currant	Grossulariaceae	7/14/2019
	Rosa pisocarpa	Cluster rose	Rosaceae	5/22/2019
	Rubus leucodermis	White-stem raspberry	Rosaceae	5/22/2019
	Salix lasiolepis	Arroyo willow	Salicaceae	7/14/2019
	Salix scouleriana	Scouler willow	Salicaceae	5/22/2019
	Sambucus sp.	Elderberry	Adoxaceae	7/14/2019
	Symphoricarpos albus	Common snowberry	Caprifoliaceae	5/22/2019
	Toxicodendron diversilobum	Poison oak	Anacardiaceae	5/22/2019
	Vaccinium ovatum	Evergreen huckleberry	Ericaceae	5/22/2019
Herbaceous Plants	Achillea millefolium	Common yarrow	Asteraceae	5/22/2019
	Achyrachaena mollis	Soft blow wives	Asteraceae	5/22/2019
	Acmispon americanus	American bird's foot trefoil	Fabaceae	5/22/2019
	Acmispon brachycarpus	Short podded lotus	Fabaceae	5/22/2019
	Agoseris retrorsa	Spear leaved agoseris	Asteraceae	5/22/2019
	Aira caryophyllea	Silver hairgrass	Poaceae	5/22/2019
	Allium hoffmanii	Beegum onion	Alliaceae	5/22/2019

	Anisocarpus madioides	Woodland madia	Asteraceae	5/22/2019
	Anthoxanthum odoratum	Sweet vernal grass	Poaceae	5/22/2019
	Anthriscus caucalis	Bur chevril	Apiaceae	5/22/2019
	Arnica discoidea	Rayless arnica	Asteraceae	7/14/2019
	Aspidotis densa	Cliffbrake	Pteridaceae	5/22/2019
	Athysanus pusillus	Common sandweed	Brassicaceae	5/22/2019
	Avena barbata	Slender oat	Poaceae	5/22/2019
	Briza minor	Small quaking grass	Poaceae	7/14/2019
	Brodiaea elegans	Harvest brodiaea	Themidaceae	7/14/2019
	Bromus carinatus	California brome	Poaceae	7/14/2019
	Bromus diandrus	Ripgut grass	Poaceae	5/22/2019
	Bromus hordeaceus	Soft chess	Poaceae	5/22/2019
	Bromus tectorum	Cheatgrass	Poaceae	7/19/2019
	Calandrinia menziesii	Red maids	Montiaceae	7/19/2019
	Callitriche sp.	Starwort	Plantaginaceae	7/14/2019
	Calochortus tolmiei	Hairy star tulip	Lilaceae	5/22/2019
	Calochortus vestae	Yellow mariposa	Liliaceae	7/19/2019
	Calypso bulbosa	Fairy slipper	Orchidaceae	5/22/2019
	Calystegia occidentalis ssp. occidentalis	Western morning glory	Convolvulaceae	7/14/2019
	Campanula scouleri	Scouler's harebell	Campanulaceae	7/14/2019
	Capsella bursa-pastoris	Shepherd's purse	Brassicaceae	5/22/2019
	Cardamine oligosperma	Bittercress	Brassicaceae	5/22/2019
	Carduus pycnocephalus	Italian thistle	Asteraceae	5/22/2019
	Carex globosa	Round fruit sedge	Cyperaceae	5/22/2019
	Carex subfusca	Pale broom sedge	Cyperaceae	7/14/2019
	Carex utriculata	Beaked sedge	Cyperaceae	7/14/2019
	Castilleja densiflora	Dense flower owl's clover	Orobanchaceae	5/22/2019
	Centaurea solstitialis	Yellow star thistle	Asteraceae	7/14/2019
	Cerastium glomeratum	Large mouse ears	Caryophyllaceae	5/22/2019
	Chlorogalum pomeridianum	Soap plant	Agavaceae	5/22/2019
	Cirsium occidentale	Cobweb thistle	Asteraceae	5/22/2019
	Cirsium vulgare	Bull thistle	Asteraceae	7/14/2019
	Clarkia rhomboidea	Diamond clarkia	Onagraceae	7/14/2019
	Claytonia perfoliata	Miner's lettuce	Montiaceae	5/22/2019
	Clinopodium douglasii	Yerba buena	Lamiaceae	5/22/2019
	Collomia grandiflora	Large flowered collomia	Polemoniaceae	7/14/2019
	Collomia heterophylla	Variable leaved collomia	Polemoniaceae	5/22/2019
	Convolvulus arvensis	Bindweed	Convolvulaceae	7/14/2019
	Corallorhiza maculata	Spotted coralroot	Orchidaceae	7/14/2019
	Crepis sp.	Hawksbeard	Asteraceae	5/22/2019
	Croton setiger	Turkey-mullein	Euphorbiaceae	7/19/2019
	Cynoglossum grande	Giant hound's tongue	Boraginaceae	5/22/2019
	Cynosurus echinatus	Hedgehog dogtail grass	Poaceae	7/14/2019
	Cyperus eragrostis	Tall nutsedge	Cyperaceae	7/14/2019
	Cystopteris fragilis	Bladder fern	Woodsiaceae	5/22/2019

	Dactylis glomerata	Orchard grass	Poaceae	5/22/2019
	Danthonia californica	California oatgrass	Poaceae	7/14/2019
	Delphinium decorum	Larkspur	Ranunculaceae	5/22/2019
	Delphinium nudicaule	Canyon larkspur	Ranunculaceae	5/22/2019
	Deschampsia elongata	Hairgrass	Poaceae	7/14/2019
	Dichelostemma capitatum	Blue dicks	Themidaceae	5/22/2019
	Dichelostemma congestum	Fork-toothed ookow	Themidaceae	7/14/2019
	Dichelostemma ida-maia	Firecracker flower	Themidaceae	7/14/2019
	Eleocharis macrostachya	Spike rush	Cyperaceae	7/19/2019
	Eleocharis palustris	Common spikerush	Cyperaceae	7/19/2019
	Elymus glaucus	Blue wild rye	Poaceae	7/14/2019
	Epilobium brachycarpum	Annual fireweed	Onagraceae	7/14/2019
	Epilobium ciliatum	Slender willowherb	Onagraceae	7/14/2019
	Epilobium densiflorum	Willow herb	Onagraceae	7/19/2019
	Epilobium foliosum	California willowherb	Onagraceae	7/19/2019
	Equisetum telmateia	Giant horesetail	Equisetaceae	7/14/2019
	Ericameria nauseosa	Rubber rabbitbrush	Asteraceae	7/19/2019
	Eriogonum compositum	Arrowleaf buckwheat	Polygonaceae	7/19/2019
	Eriogonum nudum var. nudum	Nude buckwheat	Polygonaceae	7/19/2019
	Eriophyllum lanatum	Common woolly sunflower	Asteraceae	5/22/2019
	Erodium botrys	Big heron bill	Geraniaceae	5/22/2019
	Erodium cicutarium	Coastal heron's bill	Geraniaceae	5/22/2019
	Erysimum capitatum	Western wallflower	Brassicaceae	5/22/2019
	Erythranthe cardinalis	Cardinal monkey flower	Phrymaceae	7/14/2019
	Erythranthe guttata	Yellow monkey flower	Phrymaceae	5/22/2019
	Erythronium californicum	California fawn lilly	Liliaceae	5/22/2019
	Festuca californica	California fescue	Poaceae	5/22/2019
	Fragaria vesca	Woodland strawberry	Rosaceae	5/22/2019
	Fritillaria affinis	Checker lily	Lilaceae	5/22/2019
	Galium ambiguum	Yolla bolly bedstraw	Rubiaceae	7/19/2019
	Galium aparine	Common bedstraw	Rubiaceae	5/22/2019
	Gilia capitata ssp. capitata	Blue field gilia	Polemoniaceae	7/19/2019
	Gnaphalium palustre	Cudweed	Asteraceae	7/14/2019
	Heuchera micrantha	Alumroot	Saxifragaceae	7/14/2019
	Hieracium albiflorum	White hawkweed	Asteraceae	5/22/2019
	Hordeum marinum	Seaside barley	Poaceae	5/22/2019
	Hordeum murinum	Foxtail barley	Poaceae	5/22/2019
	Hydrophyllum occidentale	California waterleaf	Boraginaceae	5/22/2019
	Hypericum perforatum	St. John's wort	Hypericaceae	5/22/2019
	Juncus bufonius	Common toad rush	Juncaceae	7/19/2019
	Juncus covillei	Coville's rush	Juncaceae	7/14/2019
	Juncus effusus	Bog rush	Juncaceae	5/22/2019
	Juncus occidentalis	Western rush	Juncaceae	5/22/2019
	Juncus patens	Common rush	Juncaceae	5/22/2019
	Lactuca saligna	Willow lettuce	Asteraceae	7/14/2019
	Lathyrus vestitus	Common pacific pea	Fabaceae	5/22/2019

	Leontodon saxatilis	Hawkbit	Asteraceae	5/22/2019
	Leucanthemum vulgare	Ox-eye daisy	Asteraceae	7/14/2019
	Ligusticum apiifolium	Celery leaved lovage	Apiaceae	7/19/2019
	Limnanthes douglasii ssp. nivea	Snow white meadowfoam	Limnanthaceae	5/22/2019
	Linum bienne	Pale flax	Linaceae	7/14/2019
	Lithophragma affine	Common woodland star	Saxifragaceae	5/22/2019
	Lomatium dasycarpum	Hog fennel	Apiaceae	5/22/2019
	Lomatium dissectum	Fern leaved lomatium	Apiaceae	5/22/2019
	Lomatium macrocarpum	Large fruited lomatium	Apiaceae	5/22/2019
	Lupinus albifrons	Silver bush lupine	Fabaceae	5/22/2019
	Lupinus bicolor	Miniature lupine	Fabaceae	5/22/2019
	Luzula comosa	Common wood rush	Juncaceae	5/22/2019
	Madia gracilis	Gumweed	Asteraceae	7/19/2019
	Marah oregana	Coast man-root	Cucurbitaceae	5/22/2019
	Medicago sativa	Alfalfa	Fabaceae	5/22/2019
	Micropus californicus	Q-tips	Asteraceae	7/14/2019
	Moehringia macrophylla	Large leaved sandwort	Caryophyllaceae	5/22/2019
	Monardella odoratissima	Desert mint	Lamiaceae	7/14/2019
	Montia fontana	Water montia	Montiaceae	5/22/2019
	Myriopteris gracillima	Lace lip fern	Pteridaceae	5/22/2019
	Navarretia intertexta	Needle leaved navarretia	Polemoniaceae	7/14/2019
	Navarretia sinistra	Alva day's pincushionplant	Polemoniaceae	7/14/2019
	Nemophila menziesii	Baby blue eyes	Boraginaceae	5/22/2019
	Nemophila parviflora	Small flowered nemophila	Boraginaceae	5/22/2019
	Osmorrhiza berteroi	Sweet cicely	Apiaceae	7/14/2019
	Pectocarya pusilla	Little combseed	Boraginaceae	5/22/2019
	Pellaea mucronata	Bird's foot fern	Pteridaceae	5/22/2019
	Penstemon heterophyllus	Foothill penstemon	Plantaginaceae	7/19/2019
	Perideridia kelloggii	Yampah	Apiaceae	7/19/2019
	Phacelia egena	Rock phacelia	Boraginaceae	7/19/2019
	Phacelia heterophylla	Varileaf phacelia	Boraginaceae	5/22/2019
	Phoradendron leucarpum	American mistletoe	Viscaceae	5/22/2019
	Piperia transversa	Mountain piperia	Orchidaceae	5/22/2019
	Piperia unalascensis	Alaska piperia	Orchidaceae	7/14/2019
	Plagiobothrys sp.	Popcornflower	Boraginaceae	5/22/2019
	Plectritis congesta	Sea blush	Valerianaceae	5/22/2019
	Poa pratensis	Kentucky blue grass	Poaceae	5/22/2019
	Polygonum aviculare	Prostrate knotweed	Polygonaceae	7/14/2019
	Polypodium glycyrrhiza	Licorice fern	Polypodiaceae	5/22/2019
	Polystichum munitum	Western swordfern	Dryopteridaceae	5/22/2019
	Primula hendersonii	Mosquito bill	Primulaceae	5/22/2019
	Psilocarphus oregonus	Woolly marbles	Asteraceae	7/19/2019
	Pyrola picta	White veined wintergreen	Ericaceae	7/19/2019
	Ranunculus occidentalis	Western buttercup	Ranunculaceae	5/22/2019
	Rorippa curvisiliqua	Curvepod yellow cress	Brassicaceae	7/19/2019
	Rumex acetosella	Common sheep sorrel	Polygoniaceae	5/22/2019

	Rumex crispus	Curly dock	Polygonaceae	5/22/2019
	Rupertia physodes	Common rupertia	Fabaceae	7/14/2019
	Sanicula crassicaulis	Pacific sanicle	Apiaceae	5/22/2019
	Scutellaria californica	California skullcap	Lamiaceae	7/14/2019
	Sedum lanceolatum	Lance leaf stonecrop	Crassulaceae	7/19/2019
	Senecio integerrimus	Lambstongue ragwort	Asteraceae	5/22/2019
	Silene laciniata	California Indian pink	Caryophyllaceae	7/14/2019
	Sonchus asper	Prickly sow thistle	Asteraceae	5/22/2019
	Stellaria media	Chickweed	Caryophyllaceae	5/22/2019
	Streptanthus tortuosus	Jewelweed	Brassicaceae	5/22/2019
	Thlaspi arvense	Field pennycress	Brassicaceae	5/22/2019
	Torilis arvensis	Tall sock destroyer	Apiaceae	7/14/2019
	Toxicoscordion micranthum	Small flowered star lily	Melanthiaceae	5/22/2019
	Tracyina rostrata (1B.2)	Beaked tracyina	Asteraceae	7/14/2019
	Tragopogon dubius	Goat's beard	Asteraceae	7/14/2019
	Trichostema laxum	Terpentine weed	Lamiaceae	7/14/2019
	Trifolium albopurpureum	Indian clover	Fabaceae	5/22/2019
	Trifolium fucatum	Bull clover	Fabaceae	5/22/2019
	Trifolium oliganthum	Few flowered clover	Fabaceae	5/22/2019
	Trifolium willdenovii	Tomcat clover	Fabaceae	5/22/2019
	Trillium albidum	Giant white wakerobin	Melanthiaceae	5/22/2019
	Triteleia hyacinthina	White brodiaea	Themidaceae	7/14/2019
	Triteleia laxa	Ithuriel's spear	Themidaceae	7/19/2019
	Turritis glabra	Tower rockcress	Brassicaceae	7/14/2019
	Verbena lasiostachys	Western vervain	Verbenaceae	7/19/2019
	Vicia americana	American vetch	Fabaceae	5/22/2019
	Vicia gigantea	Giant vetch	Fabaceae	7/14/2019
	Vicia sativa	Garden vetch	Fabaceae	5/22/2019
	Viola glabella	Pioneer violet	Violaceae	7/14/2019
	Viola purpurea	Goosefoot violet	Violaceae	5/22/2019

Attachment D. Botanical Survey Maps

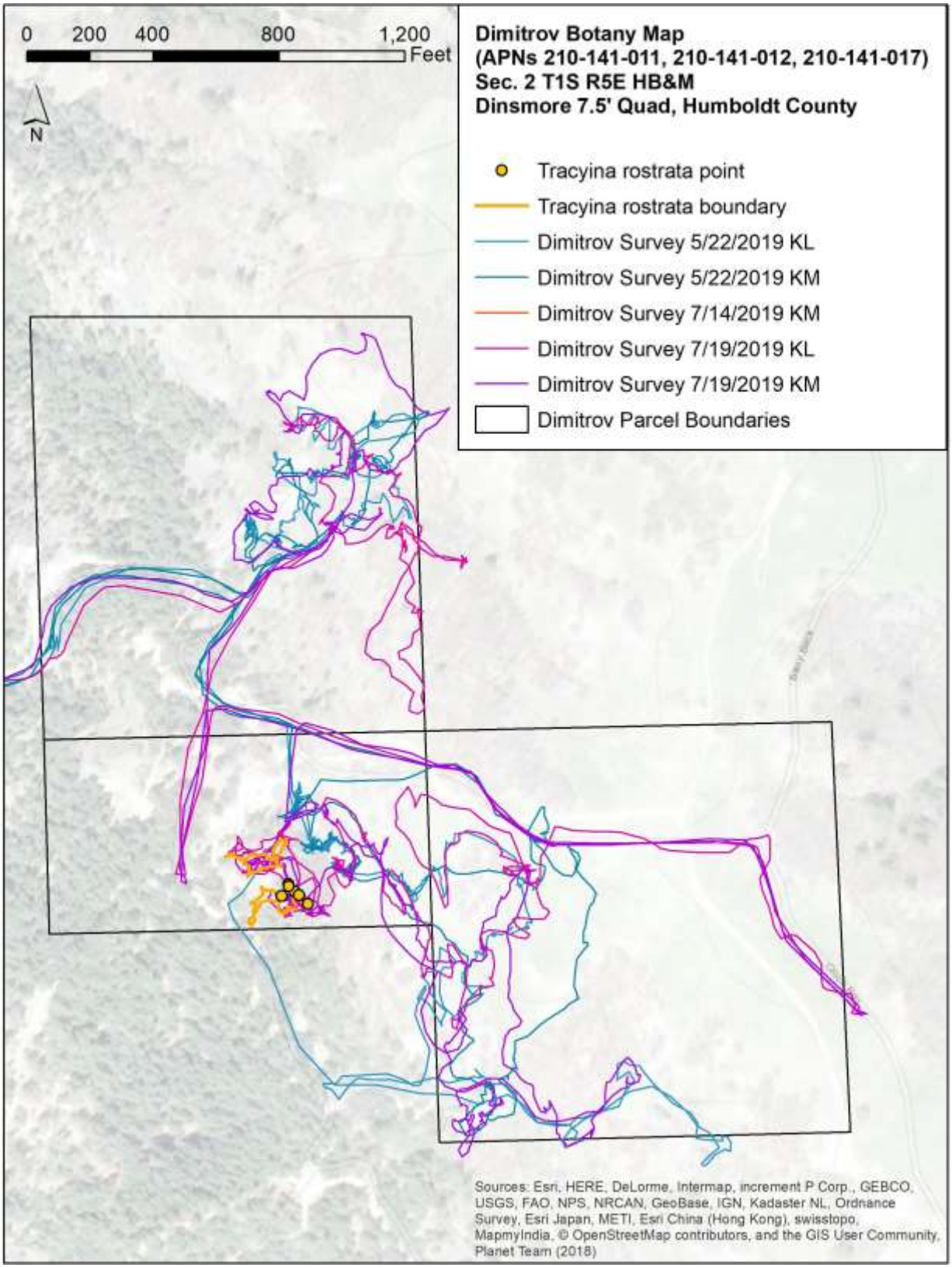


Figure 1. Southern parcel.

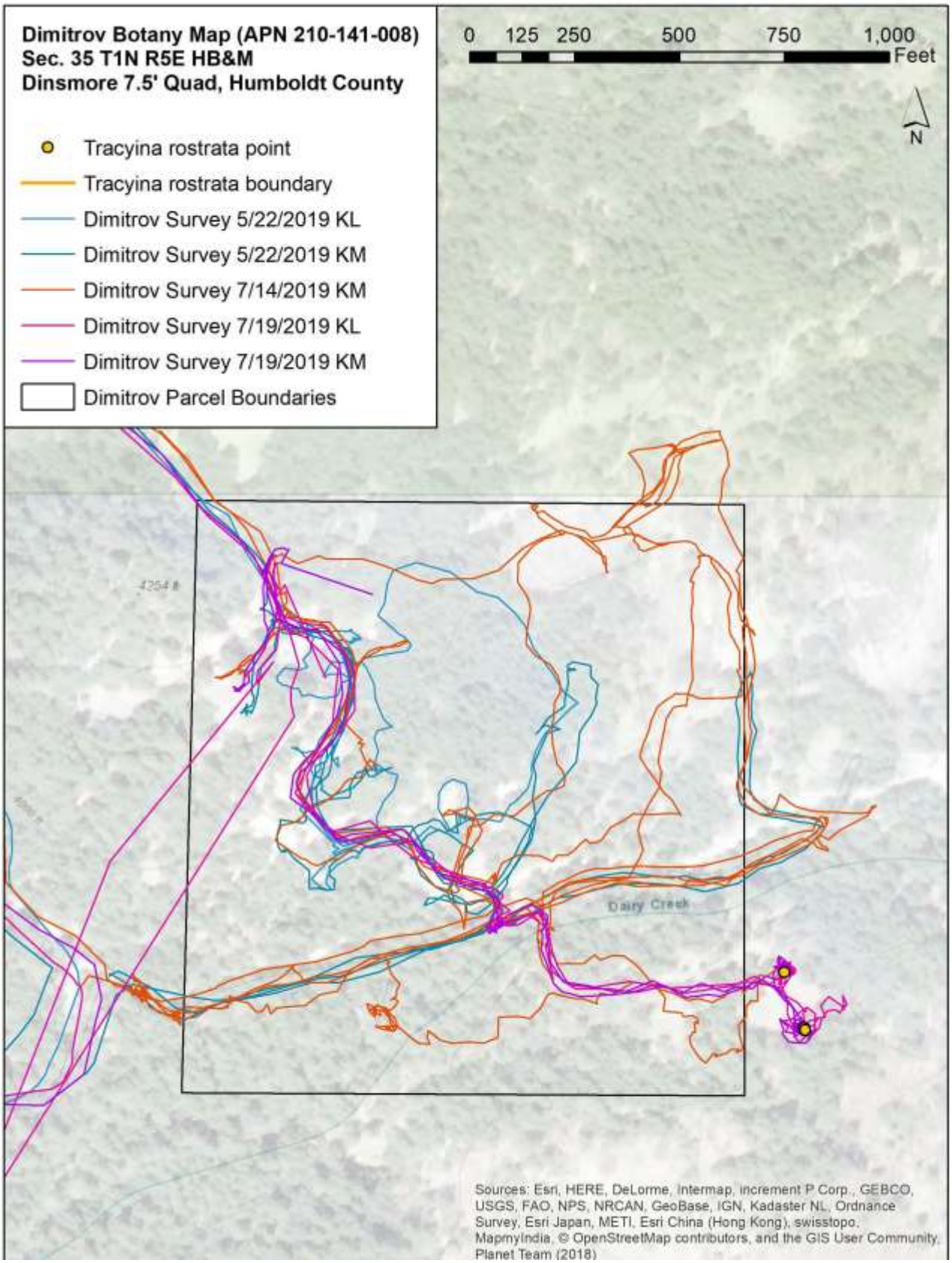


Figure 2. Northern parcel.

Attachment E. Habitat Photos

Figure 3. Grasslands bordered by oak woodland typical of the southern parcel.

Figure 4. Large hoop houses on the edge of the grasslands on the southern property.

Figure 5. The *Tracyina rostrata* population in the northern parcel. Flags showing the extent of the population (above).

Figure 6. The large *Tracyina rostrata* population in the southern parcel.

Figure 7. Approximately 35 Oregon white oaks (*Quercus garryana*) were recently cut around the cultivation area on parcel APN 210-144-011.

Figure 8. Erosion from the dug-out stream beds and adjacent cultivation areas on APN 210-144-011 and APN 210-144-012 has the potential to negatively impact riparian plant communities and facilitate the spread of invasive plants.

Attachment F. Rank Definitions Global Conservation Status Definition

Listed below are definitions for interpreting NatureServe global (range-wide) conservation status ranks. These ranks are assigned by NatureServe scientists or by a designated lead office in the NatureServe network.

G1 **Critically Imperiled** – At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.

G2 **Imperiled** – At high risk of extinction or elimination due to very restricted range, very few populations, steep declines, or other factors.

G3 **Vulnerable** – At moderate risk of extinction or elimination due to a restricted range, relatively few populations, recent and widespread declines, or other factors.

G4 **Apparently Secure** – Uncommon but not rare; some cause for long-term concern due to declines or other factors.

G5 **Secure** – Common; widespread and abundant.

G#G# **Range Rank** – A numeric range range (e.g. G2G3, G1G3) is used to indicate the range of uncertainty about the exact status of a taxon or ecosystem type. Ranges cannot skip more than two ranks (e.g., GU should be used rather than G1G4).

Infraspecific Taxon Conservation Status Ranks

T# **Infraspecific Taxon** (trimonial) – The status of infraspecific taxa (subspecies or varieties) are indicated by a "T-rank" following the species global rank. Rules for assigning T-ranks follow the same principles outlined above. For example, the global rank of a critically imperiled subspecies of an otherwise widespread and common species would be G5T1. A T subrank cannot imply the subspecies or variety is more abundant than the species. For example, a G1T2 subrank should not occur. A vertebrate animal population, (e.g., listed under the U.S. Endangered Species Act or assigned candidate status) may be tracked as an infraspecific taxon and given a T-rank; in such cases a Q is used after the T-rank to denote the taxon's informal taxonomic status.

Subnational (S) Conservation Status Ranks

S1 **Critically Imperiled** – Critically imperiled in the jurisdiction because of extreme rarity or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the jurisdiction.

S2 **Imperiled** – Imperiled in the jurisdiction because of rarity due to very restricted range, very few populations, steep declines, or other factors making it very vulnerable to extirpation from jurisdiction.

S3 **Vulnerable** – Vulnerable in the jurisdiction due to a restricted range, relatively few populations, recent and widespread declines, or other factors making it vulnerable to extirpation.

S4 **Apparently Secure** – Uncommon but not rare; some cause for long-term concern due to declines or other factors.

S5 **Secure** – Common, widespread, and abundant in the jurisdiction.

S#S# **Range Rank** – A numeric range rank (e.g., S2S3 or S1S3) is used to indicate any range of uncertainty about the status of the species or ecosystem. Ranges cannot skip more than two ranks (e.g., SU is used rather than S1S4).

Rank Qualifiers

? **Inexact Numeric Rank** – Denotes inexact numeric rank; this should not be used with any of the Variant Global Conservation Status

Q **Questionable taxonomy that may reduce conservation priority** – Distinctiveness of this entity as a taxon or ecosystem type at the current level is questionable; resolution of this uncertainty may result in change from a species to a subspecies or hybrid, or inclusion of this taxon or type in another taxon or type, with the resulting taxon having a

lower-priority (numerically higher) conservation status rank. The "Q" modifier is only used at a global level and not at a national or subnational level.

The California Rare Plant Ranks

1A. Presumed extirpated in California and either rare or extinct elsewhere
1B. Rare or Endangered in California and elsewhere
2A. Presumed extirpated in California, but more common elsewhere
2B. Rare or Endangered in California, but more common elsewhere
3. Plants for which we need more information – Review list
4. Plants of limited distribution – Watch list

1A: Plants Presumed Extirpated in California and either rare or extinct elsewhere
The plants of Rank 1A are presumed extirpated because they have not been seen or collected in the wild in California for many years. This rank includes those plant taxa that are both presumed extinct, as well as those plants which are presumed extirpated in California and rare elsewhere. A plant is extinct if it no longer occurs anywhere. A plant that is extirpated from California has been eliminated from California, but may still occur elsewhere in its range.

1B: Plants Rare, Threatened or Endangered in California and Elsewhere
(Includes Rare Plant Ranks 1B.1, 1B.2, 1B.3)
The plants of Rank 1B are rare throughout their range with the majority of them endemic to California. Most of the plants that are ranked 1B have declined significantly over the last century. California Rare Plant Rank 1B plants constitute the majority of plant taxa tracked by the CNDDB, with more than 1,000 plants assigned to this category of rarity.

2A: Plants Presumed Extirpated in California, but more common elsewhere
The plants of Rank 2A are presumed extirpated because they have not been seen or collected in the wild in California for many years. This rank includes only those plant taxa that are presumed extirpated in California, but that are more common elsewhere in their range. Note: Plants of both Rank 1A and 2A are presumed extirpated in California; the only difference is the status of the plants outside of the state.

2B: Plants Rare, Threatened or Endangered in California, but More Common Elsewhere
(Includes Rare Plant Ranks 2B.1, 2B.2 2B.3)
The plants of Rank 2B are rare, threatened or endangered in California, but more common elsewhere. Plants common in other states or countries are not eligible for consideration under the provisions of the Federal Endangered Species Act; however they are eligible for consideration under the California Endangered Species Act. This rank is meant to highlight the importance of protecting the geographic range and genetic diversity of more widespread species by protecting those species whose ranges just extend into California. Note: Plants of both Rank 1B and 2B are rare, threatened or endangered in California; the only difference is the status of the plants outside of the state.

Threat Ranks:
The California Rare Plant Ranks (CRPR) use a decimal-style threat rank. The threat rank is an extension added onto the CRPR and designates the level of threats by a 1 to 3 ranking with 1 being the most threatened and 3 being the least threatened. So most CRPRs read as 1B.1, 1B.2, 1B. 3, etc. Note that some Rank 3 plants do not have a threat code extension since there are no known extant populations of the plants in California.
Threat Code extensions and their meanings:
.1 – Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 – Moderately threatened in California (20-80% of occurrences threatened / moderate degree and immediacy of threat)
.3 – Not very threatened in California (<20% of occurrences threatened / low degree of immediacy of threat or no current threats known)

Revised Attachment G.

Table G-1 below compares the traits of the *Crepis* species found by Claire Brown on June 19, 2020 with the trait descriptions of *Tracyina rostrata* from the Jepson Manual (Baldwin et.al 2012) and those of *Crepis puchra* from the eFlora of North America (eFNA2020).

At time of collection on June 19, 2020, the *Crepis sp*. specimens were 100% in flower, with none having yet set mature fruit. However, the corollas of almost all individuals were somewhat gummy and withered. Some heads still had immature flowers with rolled-up corollas at their center, while most heads contained flowers that were all mature with expanded ligules. All flowers in all heads were bisexual. Collected specimens were allowed to dry, and fruit did at least partially mature on these plants. These fruits were used for keying and the description below.

The main difference between *Crepis pulchra* and the specimens collected is the lack of viscid stipitate glands on the proximal stem and leaf faces. According to Alison Colwell of the UC Davis Center for Plant Diversity, "The Lactuceae tend to have apomictic swarms so lots of confusing microvariation that makes ID unsatisfactory" (Colwell, pers.comm. July 2020). Digitized herbarium specimens of *Crepis pulchra* found in CCH2 are visually similar (CCH2 2020).

Table G-1. Specimen Trait Comparison Chart (Jepson eFlora 2020, eFNA 2020)

Trait	*Tracyina rostrata* (Jepson eFlora 2020)	***Crepis sp.* specimans found 6-19-2020**	***Crepis pulchra* (eFNA 2020)**
Habit:	Annual 5--30+ cm, from slender taproot; generally self-pollinated.	Annual, most are mostly between 40 cm and 80 cm in height.	Annuals, 5–100 cm (taproots slender)
Stem:	erect, simple or branched distally, branches often exceeding main stem, glabrous	Erect, branched distally, forming compound cyme/corymb. Proximal stem coarsely white non-glandular hairy, distal glabrous	erect, simple, proximally hispid and stipitate-glandular (viscid), distally glabrous.
Leaf:	basal and at flower mostly cauline, alternate, +- sessile, 10--25(35+) mm, 1--2(5+) mm wide, narrowly lanceolate to linear, entire, ciliate, glabrous or sparsely, minutely coarse-hairy.	Almost all leaves >5 mm wide, coarsely toothed, coarsely white- hairy on adaxial and abaxial surfaces, semi-clasping base. Basal 50 to 80 mm long, proximal cauline 50 to 75 mm, distal cauline much reduced.	Leaves basal and cauline; petiolate; blades oblanceolate or runcinate, 1–24 × 1–5 cm, (bases attenuate) margins deeply pinnately lobed to denticulate (lobes triangular, terminal lobes largest), apices obtuse to acute, faces densely stipitate-glandular (viscid)
Inflorescence	heads radiate, 1 at branch tips; peduncle +- minutely soft-hairy near heads; involucre 5--7+ mm, 1--3+ mm diam, +- cylindric to obconic; phyllaries (6)20--30+, graduated in (2)3--4+ series, appressed, linear to awl-shaped, green, flat, glabrous or sparsely and minutely coarse-hairy, persistent; receptacle convex, pitted or smooth, epaleate.	Heads 10-30, arranged in more or less flat topped loose, compound cyme/corymb. Involucre 9 mm, Phyllaries are in 3 series, lanceolate (outermost ovate to almost deltate) distinctly keeled, green with white-translucent margins, glabrous except ciliate at tip. Receptacle epaleate. heads liguliflorous	Heads 10–40, in loose, corymbiform arrays. Calyculi of 5–7, ovate or lanceolate, glabrous bractlets 1–2 mm. Involucres cylindric (turbinate in fruit), 8–12 × 3–5 mm. Phyllaries 10–14, (green medially) lanceolate, 8–10 mm, (bases strongly keeled and thickened, margins scarious), apices acute, faces glabrous.
Ray Flower:	(3)12--15(20+); corolla +- yellow, often purple-tinged, tube 2.5--3+ mm, ray inconspicuous, 1--1.5+ mm, narrowly elliptic.	None, all flowers ligulate. Corolla tube 3.5mm, ligule 3-4 mm.15 to 25 flowers total per head. All flowers bisexual	Florets 15–30; corollas light yellow, 5–12 mm
Disk Flower:	(4)15--25+; corolla pale yellow to +- purple, tube 1--1.5 mm, < throat, throat 2--2.5 mm, lobes erect, 0.1--0.3 mm, lance-deltate; anther tip reduced, +- triangular; style branch tips long-tapering distally.	None, heads liguliflorous	
Fruit:	**:** 5--6 mm, +- spindle-shaped, long-tapered distally (almost beaked), glabrous or (ray fruit) glabrous in age or (disk fruit) +- minutely coarse-hairy; pappus of (12)30--40 long-tapered bristles in 1(2) series, 1--4+ mm, +- equal or outer shorter, minutely barbed, persistent, fragile.	Fusiform but not long-tapered distally, not beaked. Outer longer than inner (none totally mature at collection). Outer 5.5 mm, inner 5 mm	Cypselae (monomorphic or dimorphic) green to yellowish brown, subcylindric, outer 5–6 mm, inner 4–5 mm, apices attenuate (not beaked), ribs 10–12; pappi dusky white (very fine, fluffy), 4–5 mm. 2n = 8.

Speciman Photos

Taken onsite 6-19-2020

Taken onsite 6-19-2020

Taken onsite 6-19-2020

Taken onsite 6-19-2020

Taken onsite 6-19-2020

Taken onsite 6-19-2020

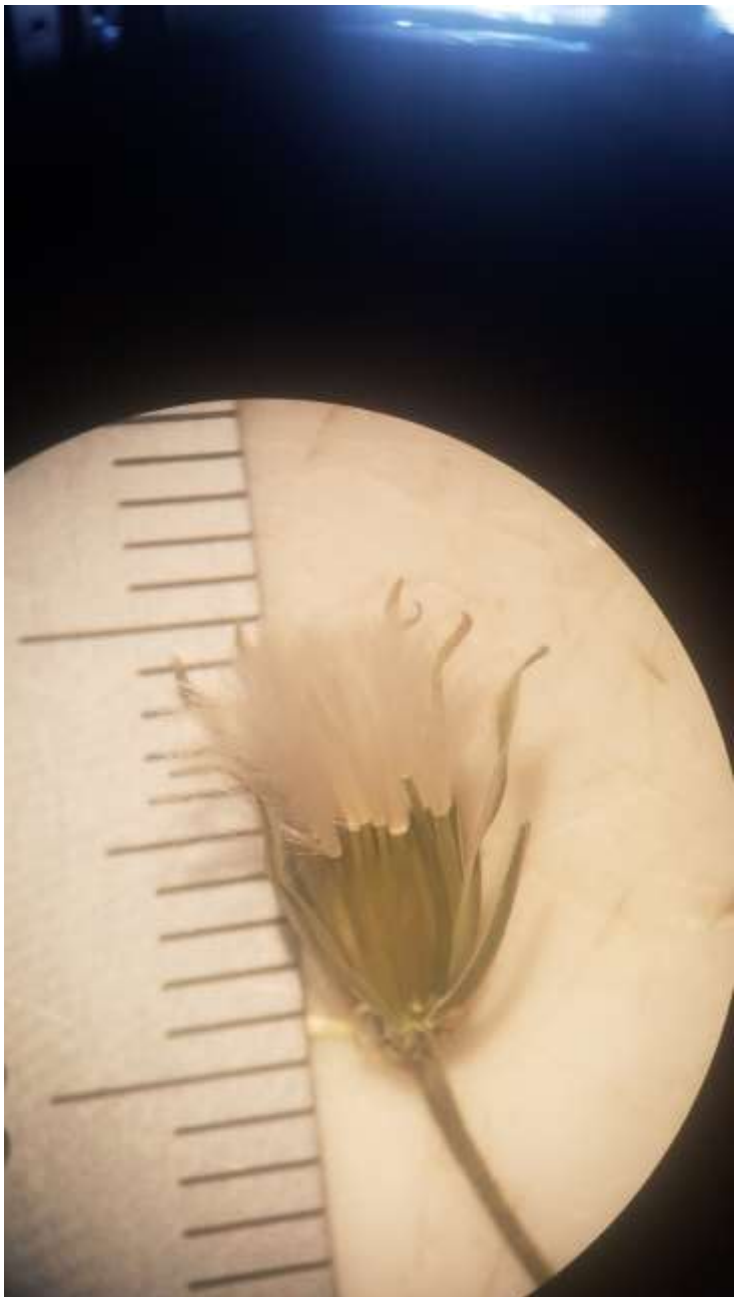
Taken onsite 6-19-2020

Taken onsite 6-19-2020

Taken under scope 6-24-2020

Taken under scope 6-24-2020

Taken in office 6-24-2020



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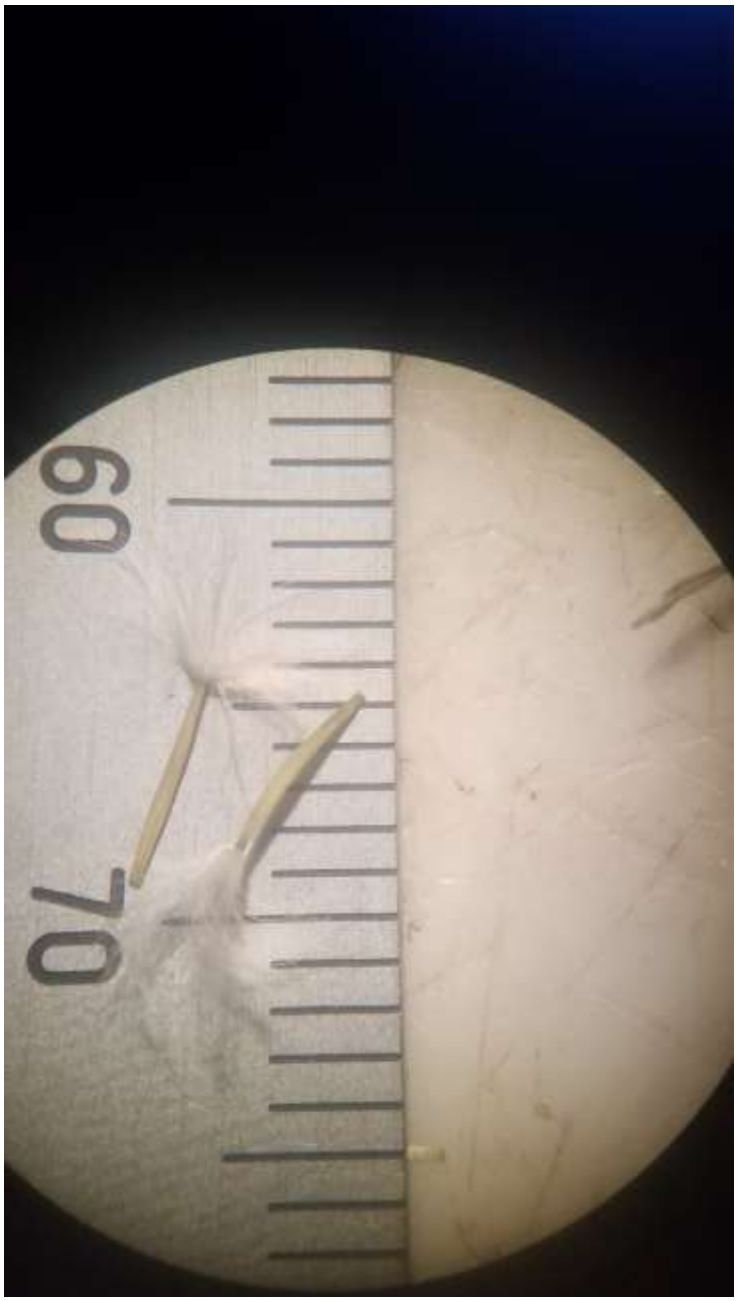

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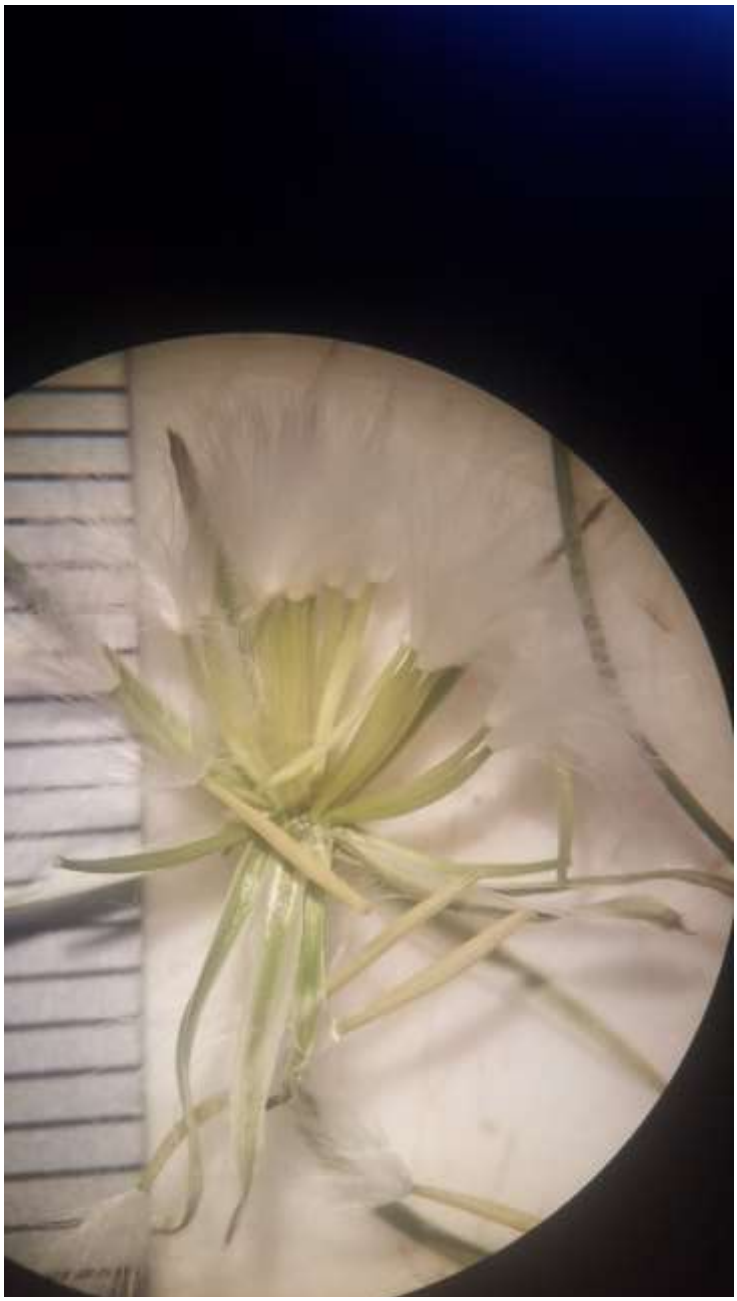

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