Species: *Eriogonum prociduum* Reveal, prostrate buckwheat

Photo Sources: CalPhotos 2023, iNaturalist 2023

Photo Credits: Left: Dean Wm. Taylor; top right: Jordan Collins; bottom right: Christian Schwarz.

Status

Table 1 summarizes the current status of this species or subspecies/variety by various ranking entities and defines the meaning of the status.

Table 1. Current status of prostrate buckwheat		
Entity	**Status**	**Status Definition**
NatureServe CA[a]	G3, S3	**G3**: Vulnerable — At moderate risk of extinction or elimination due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors. **S3**: Vulnerable — Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the state.
California Rare Plant Rank[b]	1B.2	**1B**: Plants rare, threatened, or endangered in California and elsewhere.

		0.2: Moderately threatened in California (20-80% of occurrences threatened / moderate degree and immediacy of threat). This taxon was added to the *CNPS Inventory of Rare and Endangered Plants of California* in 1974 and has undergone no changes since 2001 (CNPS 2023).
California State Listing[c]	Not listed	
USDA Forest Service[d]	S	Sensitive
USDI FWS[e]	Not listed	
USDI BLM[f]	S	Sensitive
NatureServe OR[g]	S1? HP_List 1	**S1**: Critically Imperiled — Critically imperiled in the state because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state. **?**: Qualifier: Inexact or Uncertain — A question mark denotes an inexact or uncertain rank. **HP_List 1**: Taxa that are threatened with extinction or presumed to be extinct throughout their entire range. These are the taxa most at risk and should be the highest priority for conservation action.
Oregon State Listing[h]	C	Candidate for listing as threatened or endangered
NatureServe NV[i]	S1 Track	**S1**: Critically Imperiled — Critically imperiled in the state because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state. **Track**: Track all extant and selected historical EOs.
Nevada State Listing[j]	Not listed	

[a] California Natural Diversity Database, California Dept. of Fish & Wildlife [CNDDB 2023, 2023a]
[b] California Native Plant Society [CNPS 2023]
[c] California Department of Fish and Wildlife [CDFW 2023]
[d] US Forest Service Region 5 Forester's List [USDA 2013] and Pacific NW Survey and Manage [USDA & BLM 2014]
[e] US Department of Interior Fish and Wildlife Service [USFWS 2023]
[f] US Department of Interior Bureau of Land Management [BLM 2022]
[g] Oregon Biodiversity Information Center [ORBIC 2023]
[h] Oregon Department of Agriculture [ODA 2018]
[i] Nevada Division of Natural Heritage [NDNH 2022]
[j] Nevada Division of Forestry [NDF 2012]
Note: Individual State Heritage Programs (CNDDB, ORBIC, NNHP) represent NatureServe and contain more up-to-date ranks for their state than NatureServe Explorer.

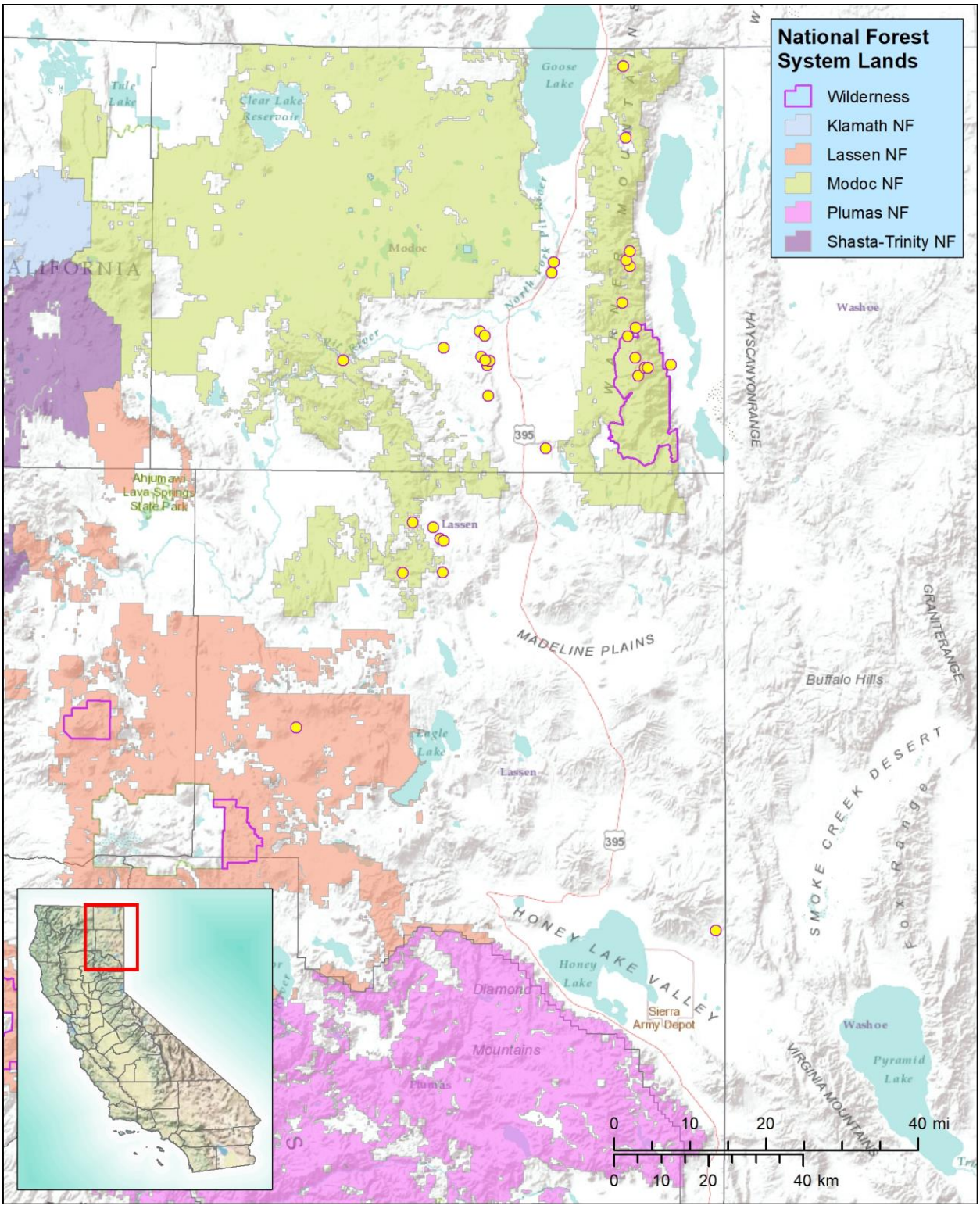
Distribution, abundance, and population trend on the planning unit[1]

Table 2 summarizes the distribution and frequency of this species or subspecies/variety within National Forest System Lands in California. Table 4 in Appendix 1 lists all known occurrences of this species or subspecies/variety within California. Individual occurrences are defined as sites that contain an individual, population, or groups of populations of the plant that are located more than 1/4 (0.25) of a mile apart from each other as defined by the CNDDB.

Table 2. Known occurrence frequency of prostrate buckwheat within the planning area (NRIS, CNDDB, Calflora/CCH databases)

National Forest System (NFS) lands in California	Record #s (from Table 4)	CNDDB EOs	Non-CNDDB Records	Recent (seen in past 20 years)	Historical (not seen in past 20 years)	Most Recent Obs. Date	Total Records on NFS lands
Lassen:	23	1	0	1	0	14-Jun-2011	1
Modoc:	4, 9, 10, 12, 15, 18, 19, 20, 21, 22, 26, 29, 30, 31, 32	15	0	7	8	30-Jun-2022	15
Totals:	N/A	16	0	8	8	N/A	16

[1] 1909.12 Chapter 10, Section 12.53, components 2, 3, and 4.



Sources: *Distribution*: NRIS 2022, Calflora 2023, CCH2 2023, CNDDB 2023, iNaturalist 2023, Sanger 2023 pers. comm. *Baselayers*: 2013 National Geographic Society, i-cubed, Esri, Garmin, NOAA, NPS, USGS.

Prostrate buckwheat was last updated in the CNDDB on 28 Nov 2017 (CNDDB 2023), and therefore all Calflora, CCH, and/or NRIS records prior to this date are assumed to have already been reviewed and entered into the CNDDB for this plant. Accordingly, only records from Calflora, CCH, and/or NRIS reported after this date have been reviewed for potential new or updated occurrence information and are included in Table 4 in Appendix 1 as applicable.

Prostrate buckwheat is found in Oregon (Baker and Lake counties), Nevada (Humboldt and Washoe counties), and California (Lassen and Modoc counties) (FNA 1993+, CCH2 2023, CPNWH 2023). Within California, it occurs in the Modoc Plateau (MP) bioregion and Warner Mountains (Wrn) subregion (NRIS 2022, Calflora 2023, CCH2 2023, CNDDB 2023, iNaturalist 2023). Sixteen of the 33 location records included in Table 4 are at least partially on U.S. National Forest lands (Table 2), with 15 occurring on the Modoc NF and one on the Lassen NF. Six of the Modoc NF records (#s 4, 12, 15, 20, 26, and 31) are in the South Warner Wilderness. Eleven of the records are on BLM land, three of which are at least partially within the Ash Valley Research Natural Area (Schoolcraft 1988, CNDDB 2023). Of the remaining six records, two are on land owned by the California State Lands Commission, one is in the Surprise Valley Wildlife Area (CDFW), and three are on lands of unknown ownership. Fourteen of the records are recent (observed during the past 20 years), and 19 are considered historical.

While 24 of the location records included population size estimates, census methods were often inconsistent or not reported. Some surveys reported incomplete coverage and others combined two or more occurrences; as a result, the following population totals and trends should be interpreted cautiously. Five locations had between 11 and 100 plants, 13 had between 101 and 1000 plants, and seven had between 1001 and 5000 plants. Record #s 1, 2, and 3 were surveyed in 1981 and had more than 10,000 plants collectively. Of the 14 locations with census data spanning multiple years, four populations were possibly decreasing, nine were possibly stable, and one was possibly increasing. Seventeen of the locations have been visited more than once over periods of four to 68 years, indicating that these populations are somewhat stable.

Location information for two herbarium records was too vague or incomplete to assign to existing or new records. A third location record includes an herbarium specimen and NRIS data (negative reports) from a former CNDDB element occurrence (EO20). The occurrence was based on a 1987 collection (*Taylor 9111b*) that was redetermined by J. L. Reveal as *Eriogonum caespitosum* (Ferguson 2023 pers. comm.). The record is still listed as *Eriogonum prociduum* in NRIS (NRIS 2022, CNDDB 2023). These three location records were excluded from this analysis and are highlighted in pink at the end of Table 4.

Brief description of natural history and key ecological functions[2]

Prostrate buckwheat is a perennial herb that grows from a woody taproot and forms highly branched low-growing mats ranging from 1–3 dm in diameter and 0.2–0.8 dm in height (Reveal

[2] Basis for other 1909.12 Chapter 10, Section 12.53 components.

1972, FNA 1993+, JEPS 2023). Flowering occurs from May to August (Reveal 1972, FNA 1993+, CCH2 2023, CNDDB 2023, CNPS 2023, JEPS 2023). Plants are found growing on gravelly, rocky, or sandy volcanic soils in Great Basin scrub, pinyon and juniper woodland, and upper montane coniferous forest from 1300 to 2705 m in elevation (CDC 2010, CCH2 2023, CNDDB 2023, CNPS 2023). Common associates include *Allium platycaule, Antennaria* spp., *Eremogone aculeata, E. kingii* var. *glabrescens, Artemisia arbuscula, A. tridentata, Astragalus anxius, A. whitneyi, Blepharipappus scaber, Bromus tectorum, Cercocarpus ledifolius, Dimeresia howellii, Elymus elymoides, Eriogonum caespitosum, E. douglasii* var. *meridionale, E. sphaerocephalum, E. umbellatum, Ipomopsis congesta, Ivesia paniculata, Leucocrinum montanum, Lewisia rediviva, Lomatium ravenii, Penstemon* spp., *Phlox hoodii* subsp. *canescens, P. muscoides, Poa secunda, Stenotus acaulis*, and *Stipa thurberiana* (NRIS 2022, Calflora 2023, CCH2 2023, CNDDB 2023, CNPS 2023).

Within *Eriogonum*, prostrate buckwheat is a member of the subgenus *Eucycla* and the "*Eriogonum chrysops"* complex, the latter consisting of woody-taprooted cespitose perennials that do not root at stem nodes and are mostly found on Great Basin volcanic substrates (Reveal 1972, 1989; Kaye et al. 1990, FNA 1993+). Two varieties of *E. prociduum* were formerly recognized, var. *prociduum* and var. *mystrium* (e.g., FNA 1993+), but the latter is now treated as a variety of *Eriogonum beatleyae* and does not occur in California (Grady and Reveal 2011, Bainbridge 2017). Prostrate buckwheat is differentiated from most similar taxa based on the following characters: a mat- or cushion-like habit, leaf blades that are densely white tomentose on both sides and usually 3–10 mm long (occasionally to 14 mm) and 1.5–4 mm wide (occasionally to 6 mm), and head-like inflorescences of yellow, glabrous flowers with similar perianth lobes (JEPS 2023). Two mat- or cushion-like buckwheats, *Eriogonum caespitosum* and *E. douglasii* var. *meridionale*, grow in the same area and are very similar to prostrate buckwheat (Nakamura and Nelson 2001). In addition to their similar growth form, both have yellow-flowered headlike inflorescences and tomentose leaves (Nakamura and Nelson 2001, JEPS 2023). They are both differentiated from prostrate buckwheat by their tomentose flower stalks (vs. glabrous in prostrate buckwheat); *E. douglasii* var. *meridionale* also has a whorl of leaflike bracts on the flowering stems which are absent on prostrate buckwheat (Nakamura and Nelson 2001).

Insects observed visiting prostrate buckwheat flowers in Oregon are classified in the orders Diptera (Tachinidae and Sarcophagidae) and Lepidoptera (Sesiidae) (Kaye et al. 1990). Confirmed pollinators of other *Eriogonum* taxa include bees, beetles, butterflies, flies, and wasps (CPC 2023). Prostrate buckwheat produces small (2–3 mm long) light brown achenes (Reveal 1972, FNA 1993+). A study in Oregon found that prostrate buckwheat had low seed production, and no seedlings or immature plants were observed at any population (Kaye et al. 1990). Many partially developed seeds were found to have fallen near adult plants, and average viability of seeds that appeared to be fully developed was 31% (+/- 16% SE; per-plant range 10–100%) (Kaye et al. 1990). As most seeds fall close to parent plants, they most likely disperse short distances by water or wind. Kaye et al. (1990) observed fallen prostrate buckwheat seeds still

attached to the perianth, a potential adaptation to wind dispersal. The seeds of other *Eriogonum* species are dispersed by ants (Whitford et al. 1981, Dunwiddie et al. 2001).

Fire is a significant threat to Umtanum desert buckwheat (*E. codium*), a morphologically similar species in Washington state, and could be a threat to prostrate buckwheat. In 1996, a fire killed approximately 15% of the total population of Umtanum desert buckwheat, and neither post-fire growth from adults nor a large flush of post-fire seedlings were observed (Dunwiddie et al. 2001, Caplow et al. 2007). Most visibly singed plants that survived the fire died the following year (Caplow et al. 2007).

Overview of ecological conditions for recovery, conservation, and viability[3] including Threats and Risk Factors

Seventeen of the 33 prostrate buckwheat location records in California have occurrence ranks of Excellent (5), Good (9), or Fair (3) (CNDDB 2023). The quality of the remaining 16 sites is unknown. Outside of California, prostrate buckwheat is considered critically imperiled (S1) in both Oregon and Nevada (NatureServe 2023). Threats to the species include roads and road maintenance, vehicles, OHV use, trail maintenance, foot traffic, wood cutting, grazing, trampling by horses and cattle, prescribed burns, erosion, and nonnative plants such as *Elymus caput-medusae* (Bainbridge 2017, CNDDB 2023). While fuel-poor volcanic substrates are likely to provide fire protection to many populations, plants near heavier fuels could be threatened by high intensity wildfires. Low seed production and viability have been observed in Oregon populations that were composed of even-aged mature plants (Kaye et al. 1990). Low levels of observed recruitment could be caused by poor pollination, drought, or genetic factors (Kaye et al. 1990). Long-term threats to prostrate buckwheat include anthropogenic climate change which may lead to increased fire severity and frequency, and changes in the timing of flowering, pollination, and seed germination (Fried et al. 2004, Hülber et al. 2010, Mondoni et al. 2012, Brown et al. 2016, Gremer et al. 2020). Changes in average temperature and precipitation patterns could adversely affect prostrate buckwheat, and there may be little available habitat for migration to new sites. *Ex situ* conservation efforts to date are limited to seed banking at the Rae Selling Berry seed bank (CaPR 2023).

Taxonomy[4]

Table 3 summarizes this species or subspecies/variety's name status in key literature.

Table 3. Name status of prostrate buckwheat

Entity	Name Status
CNDDB and CNPS	*Eriogonum prociduum* Rev.
Jepson eFlora	*Eriogonum prociduum* Reveal

[3] 1909.12 Chapter 10, Section 12.53, components 7, 9, 10, 11 and 12, as appropriate.
[4] 1909.12, Chapter 10, Section 12.53, component 1.

Jepson Manual (1993)	*Eriogonum prociduum* Reveal
Flora of North America	*Eriogonum prociduum* Reveal var. *prociduum*
USDA NRCS[a] PLANTS	*Eriogonum prociduum* Reveal
[a] Natural Resources Conservation Service [NRCS 2023]	

Synonymy: *Eriogonum prociduum* var. *prociduum* (JEPS 2023)

Jepson eFlora link (JEPS 2023): https://ucjeps.berkeley.edu/eflora/eflora_display.php?tid=24913

Type locality: Oregon, Lake County, "about 2 miles east of Drews Reservoir, 0.8 mile east of Jess Roberts ranch house, across Drews Creek north of U.S. Forest Service Road 4017" (*Reveal 2458*, US) (Reveal 1972).

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Persons Contacted

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Reviewer(s) and Date:

Ellen A. Dean, California Native Plant Society, Rare Plant Botanist, 21 March 2023; R. Douglas Stone, California Native Plant Society, Associate Rare Plant Botanist, 3 April 2023.

Formatting: Form is set up as 508 compliant. Please use the "styles" if further formatting is necessary.

Purpose: This is to maintain the best available science on a species that could be used by the Forest Service in a variety of functions. Specifically, there would be additional steps and evaluations to determine whether or not this species would be considered a Species of Conservation Concern under the 2012 Planning Rule or a Sensitive Species under the 1982 Planning Rule.

Appendix 1: Known Occurrences

Table 4. Known Occurrences of prostrate buckwheat within California (NRIS, CNDDB, Calflora/CCH databases).

Duplicate records from the same site are given the same record number and are included in red. Rows containing questionable records are highlighted in pink.

Rec. #	Locality	County	Quad	Ref. (Source)	Date Last Obs'd	Population Info	Threats	Land Mgr.	Elev. (ft.)
1	SW BORDER OF ASH VALLEY, APPROXIMATELY 2 AIR MILES WNW TO 1.9 AIR MILES SOUTHWEST OF ASH VALLEY CEMETERY.	Lassen	Ash Valley (4112016)	CNDDB, Feb. 2023 (EO 1)	31-May-2017	N COLONY: 100+ PLANTS OBSERVED IN 1980 AND 10,000+ IN 1982, SEEN IN 2017. MIDDLE COLONY: 100+ PLANTS OBSERVED IN 1982. S COLONY: 100+ PLANTS OBSERVED IN 1982. SEEN THROUGHOUT OCCURRENCE IN 1981, 1984 & 1985. INCLUDES FORMER OCCURRENCE #2. ON OPEN VOLCANIC ASH FLOW. ASSOCIATED WITH ASTRAGALUS TEGETARIOIDES, IVESIA PANICULATA, ARTEMISIA TRIDENTATA, STIPA THUNBERGIANA, DRABA DOUGLASII, ERIOGONUM SP., DIMERESIA HOWELLII, JUNIPERUS, EREMOGONE CONGESTA, POA SECUNDA, ETC.		BLM (partially within Ash Valley RNA), Unknown	5200

Duplicate records from the same site are given the same record number and are included in red. Rows containing questionable records are highlighted in pink.									
Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
1		Lassen		iNaturalist, Mar. 2023	14-Jun-2022			BLM (partially within Ash Valley RNA), Unknown	
1	Modoc Plateau. Spooner Rd. ca. 0.3 - 0.4 mi e of its junction with Ash Valley Rd. (Lassen 527) in Ash Valley. T37N R11E S04 NW1/4	Lassen	Ash Valley (4112016)	CCH2, Feb. 2023 (CHSC064845)	26-Jun-1995	Sagebrush Scrub. Locally common on basalt barrens surrounded by sagebrush.		BLM (partially within Ash Valley RNA), Unknown	5059
1	Ash Valley, ca. 1.5 miles SW of Ash Valley cemetary	Lassen	Ash Valley (4112016)	CCH2, Feb. 2023 (UC1735877)	7-May-1992	in open flat areas of rhyolitic ash deposits in sagebrush scrub.		BLM (partially within Ash Valley RNA), Unknown	
1	Local landmark: Ash Valley. Likely Quad.	Lassen	Ash Valley (4112016)	CCH2, Feb. 2023 (PUA68343)	20-Jun-1988	Bare Soil		BLM (partially within Ash Valley RNA), Unknown	5060
1		Lassen	Ash Valley (4112016)	NRIS polys, Aug. 2022 (050900E_ERPR9_BLM4)	1-Jan-1985	0 individuals		BLM (partially within Ash Valley RNA), Unknown	

Duplicate records from the same site are given the same record number and are included in red. Rows containing questionable records are highlighted in pink.									
Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
1		Lassen	Ash Valley (4112016)	NRIS polys, Aug. 2022 (050900E_ERPR9_BLM3)	1-Jan-1985	0 individuals		BLM (partially within Ash Valley RNA), Unknown	
1	Ash Valley	Lassen	Ash Valley (4112016)	CCH2, Feb. 2023 (UC1523800)	29-Jun-1982	barren shallow soiled volcanic outcrop in big sage-juniper community		BLM (partially within Ash Valley RNA), Unknown	5099
1	Ash Valley, along branch road off Adin-Madeline road, 200 yds. from junction	Lassen	Ash Valley (4112016)	CCH2, Feb. 2023 (HSC-63562)	6-Jul-1980			BLM (partially within Ash Valley RNA), Unknown	5102
1	Along Adin-Madelin Rd., (Ash Valley Rd.), 16 mi. E of Adin in Ash Valley	Lassen	Ash Valley (4112016)	CCH2, Feb. 2023 (HSC-63563)	6-Jul-1980	Sagebrush		BLM (partially within Ash Valley RNA), Unknown	5102
1	w Madeline (Ash Valley); Ash Valley	Lassen	Ash Valley (4112016)	CCH2, Feb. 2023 (UC1483820)	14-Jul-1980	in shallow rocky soil on 5% slope, facing ne		BLM (partially within Ash Valley RNA), Unknown	5079

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
1	Ca. 16.5 mi w of Madeline, on Madeline-Adin Road. T35N R11E S32 USGS Quadrangle: Likely	Lassen	Sheepshead (4012077)	CCH2, Feb. 2023 (CHSC012948)	22-Jun-1974	Patch of dark volcanic ash in sagebrush area.		BLM (partially within Ash Valley RNA), Unknown	5079
1	16.5 miles W of Madeline on road from Adin	Lassen	Lane Reservoir (4112017)	CCH2, Feb. 2023 (RSA59736)	19-May-1950	In open patches of volcanic ash over hardpan of rock		BLM (partially within Ash Valley RNA), Unknown	5502
2	ASH VALLEY, ABOUT 1.0 AIR MILE SOUTH OF CEMETERY.	Lassen	Ash Valley (4112016)	CNDDB, Feb. 2023 (EO 3)	May 1985	10,000+ PLANTS SEEN IN 1981 BETWEEN OCCURRENCES 1, 3, AND 4. PLANTS NOT AS ABUNDANT IN 1985. ON BARREN VOLCANIC ASH RIDGES IN JEFFREY PINE, JUNIPER/SAGEBRUSH. ASSOCIATED WITH ASTRAGALUS TEGETARIOIDES, DIMERESIA HOWELLII, IVESIA PANICULATA, AND IVESIA CORYMBOSA.		BLM (Ash Valley RNA)	5200
2		Lassen	Ash Valley (4112016)	NRIS polys, Aug. 2022 (050900E_ERPR9_BLM5)	1-Jan-1985	0 individuals		BLM (Ash Valley RNA)	

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
3	ASH VALLEY, APPROXIMATELY 1.3 AIR MILES SSE OF CEMETERY.	Lassen	Ash Valley (4112016)	CNDDB, Feb. 2023 (EO 4)	May 1985	10,000+ PLANTS SEEN IN 1981 BETWEEN OCCURRENCES 1, 3, AND 4. PLANTS NOT AS ABUNDANT IN 1985. ON BARREN ASH RIDGES IN JEFFREY PINE, JUNIPER/SAGE BRUSH. ASSOCIATED WITH IVESIA CORYMBOSA, AND ASTRAGALUS TEGETARIOIDES.		BLM (Ash Valley RNA), Unknown	5150

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
4	ABOUT 1.5 AIR MILES NORTHEAST OF PINE CREEK BASIN, WARNER MOUNTAINS.	Modoc	Eagle Peak (4112032)	CNDDB, Feb. 2023 (EO 5)	30-Jul-1976	GREATER THAN 2000 PLANTS OBSERVED IN 1996; OCC MAY EXTEND DOWN SLOPE TO WEST. 1980 SCHOOLCRAFT COLLECTION FROM SECTION 27 AND 1992 COLLECTION BY BARTHOLOMEW ON "SUMMIT TRAIL, UPPER REGION OF PINE CREEK BASIN" ALSO ATTRIBUTED TO THIS SITE. GRAY, GRAVELLY-ROCKY SOIL ON RIDGE CREST. ASSOCIATED WITH ERIOGONUM DOUGLASII, E. CAESPITOSUM, E. UMBELLATUM, ASTRAGALUS WHITNEYI, ARENARIA, ARTEMISIA ARBUSCULA, ELYMUS ELYMOIDES, STREPTANTHUS CORDATUS, LUPINUS, ERIOPHYLLUM LANATUM, ETC.	MINOR IMPACTS FROM TRAIL USE & MAINTENANCE.	Modoc NF (South Warner Wilderness)	8800

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
4		Modoc	Eagle Peak (4112032)	NRIS polys, Aug. 2022 (050900E_ERPR9007_53)	30-Jul-1996	2000 individuals		Modoc NF (South Warner Wilderness)	
4	Summit Trail, upper region of Pine Creek Basin, W side of Warner Mountains.	Modoc	Eagle Peak (4112032)	CCH2, Feb. 2023 (218195)	Aug 1992	Dry rocky slopes near the crest of the mountains.		Modoc NF (South Warner Wilderness)	8793
4	Summit of Warner Mtns.	Modoc	Eagle Peak (4112032)	CCH2, Feb. 2023 (HSC68925)	10-Aug-1980	Gravelly soil		Modoc NF (South Warner Wilderness)	
4		Modoc	Eagle Peak (4112032)	NRIS polys, Aug. 2022 (050900E_ERPR9007_53)	9-Aug-1980	2000 individuals		Modoc NF (South Warner Wilderness)	

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
5	ABOUT 2.0 AIR MILES SOUTHWEST OF WOODS PLACE DAM, SOUTH OF ALTURAS.	Modoc	Alturas (4112045)	CNDDB, Feb. 2023 (EO 7)	31-Jul-1984	100+ PLANTS OBSERVED BETWEEN OCCURRENCE #7 AND 8 IN 1981. 200+ IN 1984. IN SUSANVILLE BLM HERBARIUM. ON BARREN GRAVELLY VOLCANIC/BASALTIC SOIL IN JUNIPER-SAGE BRUSH. ASSOCIATED WITH POA SECUNDA, PHLOX HOODII, LEUCOCRINUM MONTANUM, ERIOGONUM SPHAEROCEPHALUM, E. OVALIFOLIUM, LEWISA REDIVIVA, ASTRAGALUS, AND BLEPHAROPAPPUS SCABER.		California State Lands Commission	4700
5		Modoc	Alturas (4112045)	NRIS polys, Aug. 2022 (050900E_ERPR9_CA)	31-Jul-1984	0 individuals		California State Lands Commission	
5	South of Alturas, west of Jones Lane	Modoc	Alturas (4112045)	CCH2, Feb. 2023 (ELH00929)	12-May-1981	Several. Shallow rocky soil.		California State Lands Commission	4600

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
5	South of Alturas west of Jones Lane., T41N R12 E sec16	Modoc	Alturas (4112045)	Calflora, Feb. 2023 (xr85199)	12-May-1981	1+ individuals. Shallow rocky soil w/rabbitbrush, juniper, squawapple.		California State Lands Commission	4541
6	ABOUT 1.5 AIR MILES SOUTHWEST OF WOODS PLACE DAM, SOUTH OF ALTURAS.	Modoc	Alturas (4112045)	CNDDB, Feb. 2023 (EO 8)	31-Jul-1984	100+ PLANTS OBSERVED BETWEEN OCCURRENCE #7 AND 8 IN 1981 AND 1984. ON BARREN GRAVELLY ASH OUTCROP OUTCROP IN JUNIPER-SAGE BRUSH. SOILS ARE GRAVELLY, ASHEN LOAM. ASSOCIATED WITH JUNIPERUS OCCIDENTALIS, ARTEMISIA ARBUSCULA, POA SECUNDA, AND PHLOX HOODII.	HEAVY WOODCUTTING IN THE AREA.	California State Lands Commission	4600
6		Modoc	Alturas (4112045)	NRIS polys, Aug. 2022 (050900E_ERPR9-CA)	31-Jul-1984	0 individuals		California State Lands Commission	

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7	ABOUT 6.5 MILES SSW OF ALTURAS ALONG DIRT ROAD, ABOUT 1.4 MILE SSE OF "CORRAL 4783" SUMMIT.	Modoc	Alturas (4112045)	CNDDB, Feb. 2023 (EO 9)	12-Jun-1996	APPROXIMATELY 15 PLANTS IN 1981, APPROXIMATELY 300 PLANTS IN 1984, 100+ PLANTS IN 1985, FEWER THAN 200 PLANTS IN 1996. ON BARREN SHALLOW ROCKY AREA IN VOLCANIC ASH. ASSOCIATED WITH JUNIPERUS OCCIDENTALIS, ARTEMISIA TRIDENTATA, LINANTHUS BOLANDERI, BLEPHAROPAPPUS SCABER, IDAHOA SCAPIGERA, ERIOGONUM SPHAEROCEPHALUM, AND POA SECUNDA.	WOODCUTTING NEARBY. AREA POSTED AS CLOSED TO WOODCUTTING IN 1985. ROAD PASSES THROUGH POPULATION.	BLM	4670
7		Modoc	Alturas (4112045)	NRIS polys, Aug. 2022 (050900E_ERPR9_BLM2)	6-Aug-1985	300 individuals		BLM	

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8	ALONG HWY 395 ABOUT 2 MILES NNE OF INTERSECTION WITH HWY 299, SOUTH OF SURPRISE STATION.	Modoc	Surprise (4112054)	CNDDB, Feb. 2023 (EO 10)	XXXXXXXX	ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS AN UNDATED CNPS MAP; LOCATION POSSIBLY INTENDED TO REPRESENT COLLECTIONS THAT HAVE BEEN ATTRIBUTED TO OCCURRENCE #19 TO THE NORTH. NEEDS FIELDWORK.		Unknown	4700
9	WILLOW CREEK VALLEY.	Modoc	Fort Bidwell (4112072), Sugar Hill (4112073)	CNDDB, Feb. 2023 (EO 11)	Jun-1894	ONLY SOURCE OF INFO FOR THIS SITE IS A 1894 COLLECTION BY AUSTIN. "WILLOW CREEK VALLEY" INTERPRETED AS FANDANGO VALLEY; WILLOW CREEK FLOWS THROUGH FANDANGO VALLEY.		Modoc NF, Unknown	
9	Willow Creek Valley	Modoc	Fort Bidwell (4112072), Sugar Hill (4112073)	CCH2, Feb. 2023 (UC6570)	Jun-1894			Modoc NF, Unknown	

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10	ALONG HIGHWAY 139 NEAR UPPER MCBRIDE SPRINGS, 2 MILES SOUTH OF WILLOW CREEK CAMPGROUND.	Lassen	Said Valley (4012087)	CNDDB, Feb. 2023 (EO 12)	13-May-2003	FEWER THAN 1000 PLANTS IN THREE SMALL SUBPOPULATIONS IN 1982. UNKNOWN NUMBER OF PLANTS OBSERVED IN 1983. ABOUT 500 PLANTS OBSERVED IN 1994. 100+ PLANTS OBSERVED IN 2003. ON DRY GRAVELLY TO SANDY, VOLCANICALLY DERIVED, ASHEN WHITE SOIL AMONG ROCK OUTCROPS. ASSOCIATED WITH ARTEMISIA TRIDENTATA, PINUS JEFFREYI, P. PONDEROSA, LEWISIA, ALLIUM, POA SECUNDA, ANTENNARIA, LITHOPHRAGMA, AND LOW SAGE.	HEAVY VEHICLE DISTURBANCE FROM NEARBY ROAD, CATTLE GRAZING.	Modoc NF	5200
10		Lassen	Said Valley (4012087)	NRIS polys, Aug. 2022 (050900E_ERPR9004_54)	13-May-2003	100 individuals		Modoc NF	

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10		Lassen	Said Valley (4012087)	NRIS polys, Aug. 2022 (050900E_ERPR9004_54)	29-Aug-1983	100 individuals		Modoc NF	
11	BETWEEN 0.5 AND 1.4 AIR MILES WEST OF THE THREE SISTERS.	Modoc	Alturas (4112045), Rattlesnake Butte (4112046)	CNDDB, Feb. 2023 (EO 13)	28-Jun-2016	MORE THAN 1000 PLANTS OBSERVED IN 6 W POLYGONS IN 1983, 1984, AND 1985. UNKNOWN NUMBER OF PLANTS OBSERVED IN E POLYGON IN 1987. 1% COVER OF ERIOGONUM PROCIDUUM SEEN IN NW POLYGON DURING 2016 VEG SURVEY. INCLUDES FORMER OCCURRENCE #17. IN OPEN BARREN AREAS IN SHALLOW VOLCANIC SOIL. ASSOCIATED WITH JUNIPERUS OCCIDENTALIS, ARTEMISIA TRIDENTATA, PENSTEMON LAETUS, ERIOGONUM SPHAEROCEPHALLUM, POA SECUNDA, AND PHLOX HOODII.	SUBDIVISIONS NEARBY. ORV USE HAS POSSIBLY INCREASED SINCE 1984. FENCING OF PART OF OCCURRENCE IS PLANNED.	BLM, Unknown	4500

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11		Modoc	Alturas (4112045), Rattlesnake Butte (4112046)	NRIS polys, Aug. 2022 (050900E_ERPR9_BLM6)	3-Jun-2002	2000 individuals		BLM, Unknown	
11		Modoc	Alturas (4112045), Rattlesnake Butte (4112046)	NRIS polys, Aug. 2022 (050900E_ERPR9_BLM1)	6-Aug-1985	2000 individuals		BLM, Unknown	

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
12	SOUTH WARNER WILDERNESS AREA, ALONG SUMMIT TRAIL, 0.1-1.2 AIR MILES SSW OF SQUAW PEAK, WARNER MOUNTAINS, MODOC NF.	Modoc	Warren Peak (4112042)	CNDDB, Feb. 2023 (EO 14)	29-Jul-1996	3 NORTHERN COLONIES: FEWER THAN 1000 PLANTS SEEN IN 1983; NOT ESTIMATED IN 1989 VISIT; 200 SEEN IN 1996. SOUTHERN COLONY: FEWER THAN 1000 PLANTS ESTIMATED IN 1983; 300+ OBSERVED IN 1996. THIS SITE INCLUDES FORMER OCCURRENCE #6,15. IN OPEN AREAS ON GRAY SOIL WITH PINUS ALBICAULIS, ARTEMISIA ARBUSCULA, ARENARIA, HAPLOPAPPUS ACAULIS, ERIOGONUM DOUGLASII, E. CESPITOSUM, E. UMBELLATUM, STENOTUS ACAULIS, IPOMOPSIS CONGESTA, PHLOX, AND SCATTERED CERCOCARPUS LEDIFOLIUS.	TRAIL USE AND MAINTENANCE.	Modoc NF (South Warner Wilderness)	8300

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
12	0.7 miles NNE of EO14	Modoc	Warren Peak (4112042)	NRIS polys, Aug. 2022 (050900E_ERPR9003_53)	30-Jul-1996	0 individuals		Modoc NF (South Warner Wilderness)	
12		Modoc	Warren Peak (4112042)	NRIS polys, Aug. 2022 (050900E_ERPR9005_53)	29-Jul-1996	200 individuals		Modoc NF (South Warner Wilderness)	
12		Modoc	Warren Peak (4112042)	NRIS polys, Aug. 2022 (050900E_ERPR9006_53)	29-Jul-1996	300 individuals		Modoc NF (South Warner Wilderness)	
12		Modoc	Warren Peak (4112042)	NRIS polys, Aug. 2022 (050900E_ERPR9005_53)	31-Jul-1983	200 individuals		Modoc NF (South Warner Wilderness)	
12		Modoc	Warren Peak (4112042)	NRIS polys, Aug. 2022 (050900E_ERPR9006_53)	31-Jul-1983	300 individuals		Modoc NF (South Warner Wilderness)	
12	Trail from Granger Pass to Mt. Warren, Warner Mts.	Modoc	Warren Peak (4112042)	CCH2, Feb. 2023 (CAS218196)	29-Jun-1931			Modoc NF (South Warner Wilderness)	8000

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12	Trail from Granger Pass to Mt. Warren; Warner Mountains	Modoc	Warren Peak (4112042)	CCH2, Feb. 2023 (JEPS56563)	29-Jun-1931			Modoc NF (South Warner Wilderness)	8000
12		Modoc	Warren Peak (4112042)	NRIS polys, Aug. 2022 (050900E_ERPR9003_53)	29-Jun-1931	0 individuals		Modoc NF (South Warner Wilderness)	
13	EAST SIDE OF CENTERVILLE ROAD, APPROXIMATELY 4.2 AIR MILES SW OF POST OFFICE AT ALTURAS.	Modoc	Alturas (4112045)	CNDDB, Feb. 2023 (EO 18)	10-Jun-1987	100 PLANTS IN 1987 IN AN AREA 150 X 75 FT. OPEN BARREN AREA WITH FESTUCA, JUNIPERUS, ARTEMISIA, PHLOX. AREA USED BY BLM AS HORSE PASTURE.	AREA OF PLANTS TRAMPLED SOME BY DOMESTIC HORSES.	BLM	4500

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
14	EAST SIDE OF HIGHWAY 395, 3.4-3.5 MILES NORTH OF HIGHWAY 299 TURNOFF, NORTH OF SURPRISE STATION.	Modoc	Surprise Station (4112054)	CNDDB, Feb. 2023 (EO 19)	3-Jun-2007	1000+ PLANTS SEEN IN 1987. FEWER THAN 200 PLANTS SEEN IN 1993. UNKNOWN NUMBER OF PLANTS SEEN IN 2007. A 1971 REVEAL COLLECTION IS ALSO ATTRIBUTED TO THIS OCCURRENCE. OPEN, BARREN AREAS IN VOLCANIC SOIL. SURROUNDED BY JUNIPERUS OCCIDENTALIS, ERIOGONUM DOUGLASII DOUGLASII, PHLOX HOODII, AND PURSHIA TRIDENTATA.	COW AND HORSE USE AND TRAMPLING COULD THREATEN.	Unknown	4500
14	Along U.S. Highway 395 at milepost 31.7, 1.1 mile north of the Chimney Rock Exit near Surprise and about 3.5 miles north of California Highway 299. T43N R13E S11 NE1/4	Modoc	Surprise Station (4112054)	CCH2, Feb. 2023 (CHSC106 004)	3-Jun-2007	On rocky granitic slopes associated with Juniperus.		Unknown	4600

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14	Along U. S. Highway 295 at milepost 31.7, 1.1 miles north of the Chimney Rock Exit near Surprise and about 3.5 miles north of California Highway 299.	Modoc	Surprise Station (4112054)	CCH2, Feb. 2023 (RSA759522)	3-Jun-2007	Rocky granitic slopes with Juniperus.		Unknown	4600
14		Modoc	Surprise Station (4112054)	NRIS polys, Aug. 2022 (050900E_ERPR9_PVT2)	14-Aug-1993	200 individuals		Unknown	
14		Modoc	Surprise Station (4112054)	NRIS polys, Aug. 2022 (050900E_ERPR9_PVT1)	27-Jun-1987	200 individuals		Unknown	
14	Hwy 395 ca. 3.5 mi N of N junction with Hwy 299.	Modoc	Surprise Station (4112054)	CCH2, Feb. 2023 (218198)	27-Jun-1987	Mostly barren, grey volcanic tuff deposits in Juniperus occidentalis woodland		Unknown	4502
14	Highway 395 3.5 miles N of Northern junction with Highway 299	Modoc	Surprise Station (4112054)	CCH2, Feb. 2023 (UC1735879)	27-Jun-1987	mostly barren gray tuff deposits in Juniperus occidentalis woodland		Unknown	4498
14	East side of Hwy 395 about 3.5 miles north of Hwy 299 intersection	Modoc	Surprise Station (4112054)	CCH2, Feb. 2023 (ELH00927)	4-Jun-1979	Several; slope 5-10%; W-S aspect. volcanic soil		Unknown	4600

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
14	East side of Hwy. 395 about 3.5 mi. N of Hwy. 299 intersection., T43N R13 E sec11	Modoc	Surprise Station (4112054)	Calflora, Feb. 2023 (xr87817)	4-Jun-1979	1+ individuals. Volcanic soil w/big sage, buckwheat, low phlox, bluegrass.		Unknown	4715
14	Along U.S. Hwy 395, 3.5 mi. N of the junction with California Hwy 299, and 1.2 mi. N of Chimmny Rock Turnoff. Along U.S. Hwy 395, 3.5 mi. N of the junction with California Hwy 299, and 1.2 mi. N of Chimmny Rock Turnoff.	Modoc	Surprise Station (4112054)	CCH2, Feb. 2023 (CAS218197)	Jun-1971	Barren, white tuff (volcanic) outcrops, associated with Lewisia, Phacelia, and scattered Juniperus		Unknown	4600
14	Along U.S. Highway 395, 3.5 miles north of the junction of U. S. 395 with California Highway 299, and 1.2 miles north of the Chimney Rock Turnoff	Modoc	Surprise Station (4112054)	CCH2, Feb. 2023 (SD86299)	22-Jun-1971	On barren, white tuff (volcanic) outcrops.		Unknown	4600
14	along US 395 3.5 mi n junction with California Highway 299 (1.2 mi n of Chimney Rock Turnoff)	Modoc	Surprise Station (4112054)	CCH2, Feb. 2023 (UC1395201)	22-Jun-1971	along hwy, on barren white tuff (volcanic) outcrops		Unknown	4600

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
15	SOUTH WARNER WILDERNESS AREA, ALONG SUMMIT TRAIL, 2.25 MILES NORTHWEST OF SQUAW PEAK, WARNER MOUNTAINS.	Modoc	Warren Peak (4112042)	CNDDB, Feb. 2023 (EO 21)	16-Sep-2002	60 PLANTS OBSERVED IN 1995, 100+ IN 1996, AND 41 IN 2002. AREA IS WITHIN SOUTH WARNER WILDERNESS; GRAZING DOES OCCUR IN WILDERNESS, BUT THIS PLANT DOES NOT APPEAR TO BE GRAZED. THE RARE LOMATIUM RAVENII ALSO OCCURS AT THIS SITE. BARREN AREAS OF VOLCANIC TALUS WITH PINUS ALBICAULIS, CERCOCARPUS, HAPLOPAPPUS ACAULIS, PENSTEMON SPECIOSUS, SEDUM LANCEOLATUM, IPOMOPSIS CONGESTA, POA SECUNDA, ERIOGONUM ELATUM, CERCOCARPUS LEDIFOLIUS, CRYPTANTHA, ETC.	TRAMPLING FROM RECREATION.	Modoc NF (South Warner Wilderness)	7100

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15	Modoc National Forest, Warner Mountains, Pepperdine Campground, Equestrian trail on the way to Squaw Peak. Past forest service sign reading "South Warner" after coming out of forest. About 325ft S of main trail on the way to summit.	Modoc	Warren Peak (4112042)	CCH2, Feb. 2023 (OBI: specimen being processed)	28-Jun-2022	Volcanic talus community. Rocky volcanic barren. Scattered low-growing shrubs and forbs. Tertiary volcanic substrate, gravelly soil, gentle W facing slope		Modoc NF (South Warner Wilderness)	7100
15		Modoc	Warren Peak (4112042)	iNaturalist, Mar. 2023	28-Jun-2022			Modoc NF (South Warner Wilderness)	
15		Modoc	Warren Peak (4112042)	Calflora, Feb. 2023 (wb2234-524)	2-Aug-2020			Modoc NF (South Warner Wilderness)	7107
15		Modoc	Warren Peak (4112042)	Calflora, Feb. 2023 (wb2234-527)	2-Aug-2020			Modoc NF (South Warner Wilderness)	7107
15		Modoc	Warren Peak (4112042)	NRIS polys, Aug. 2022 (050900E_ERPR9012_53)	16-Sep-2002	41 individuals		Modoc NF (South Warner Wilderness)	

Duplicate records from the same site are given the same record number and are included in red. Rows containing questionable records are highlighted in pink.									
Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
15		Modoc	Warren Peak (4112042)	NRIS polys, Aug. 2022 (050900E_ERPR9012_53)	17-Jul-1989	41 individuals		Modoc NF (South Warner Wilderness)	
16	SOUTH END SURPRISE VALLEY, APPROXIMATELY 4 MILES WNW OF PATTERSON LAKE.	Modoc	Warren Peak (4112042)	CNDDB, Feb. 2023 (EO 22)	9-Aug-1980	ONLY LOCATION INFO GIVEN ON LABEL IS TRS. ELEVATION GIVEN DOESN'T MATCH TOPO (LABEL SAYS 1829-2979 FT; DID THEY MEAN METERS?). MAPPED AS NON-SPECIFIC POLYGON IN SECTION 27 AT ABOUT 4800 FT. POORLY DEVELOPED, COARSE TEXTURED SOIL WITH PINUS CONTORTA, RIBES MONTIGENUM, STIPA CALIFORNICA, PENSTEMON GRACILENTUS, ARENARIA ACULEATA, ARABIS LYALLII, & CALYPTRIDIUM UMBELLATUM.		Surprise Valley Wildlife Area (CDFW)	4800
16	S Warner Mtns.	Modoc	Warren Peak (4112042)	CCH2, Feb. 2023 (HSC80861)	9-Aug-1980	Habitat: Pinus sp.		Surprise Valley Wildlife Area (CDFW)	

Duplicate records from the same site are given the same record number and are included in red. Rows containing questionable records are highlighted in pink.									
Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
17	APPROX 5.5 MILES SOUTH OF ASH VALLEY CEMETERY. BETWEEN JUNCTION OF ROADS TO SPOONER TROUGH AND BATH SPRINGS.	Lassen	Whitinger Mountain (4012086)	CNDDB, Feb. 2023 (EO 23)	9-Jul-1992	2000 PLANTS IN 1992. IN BARREN, SHALLOW SOIL WITH SCATTERED SAGE WHERE SOIL IS DEEPER.	OFF-ROAD VEHICLES THREATEN.	BLM	5700

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
18	APPROXIMATELY 0.7 MILE FROM THE OLD CANNON MILL TURNOFF ON ROAD TO SOLDIER CREEK, WARNER MOUNTAINS. 4 COLONIES.	Modoc	Cedarville (4112052)	CNDDB, Feb. 2023 (EO 24)	1-Jul-1998	POP NUMBERS FOR COLONY IN NW 1/4 SE 1/4 SEC 22: 50 IN 1991, <500 IN 1993. 1996 POP NUMBERS FOR ALL COLONIES FROM E TO W: 200 IN 2 E COLONIES COMBINED, 250, & 100. UNKNOWN # OBSERVED IN 1998. INCL 1962 COLLECTION FROM "CEDAR PASS, 6900 FT." ON BARREN RIDGES OF VOLCANIC SOILS WITH LEWISIA REDIVIVA & ALLIUM PLATYCAULE. SURROUNDED BY JUNIPERUS OCCIDENTALIS, ABIES CONCOLOR, PINUS PONDEROSA, ERIOGONUM UMBELLATUM NEVADENSE, E. SPHAEROCEPHALUM HALIMOIDES, & PHLOX HOODII.	ROAD MAINTENANCE COULD THREATEN, SOME CATTLE TRAMPLING.	Modoc NF	6600
18		Modoc	Cedarville (4112052)	NRIS polys, Aug. 2022 (050900E_ERPR9015_53)	10-Jul-1997	200 individuals		Modoc NF	

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
18		Modoc	Cedarville (4112052)	NRIS polys, Aug. 2022 (050900E_ERPR9015_53)	10-Jul-1996	200 individuals		Modoc NF	
18		Modoc	Cedarville (4112052)	NRIS polys, Aug. 2022 (050900E_ERPR9001_53)	10-Jul-1996	350 individuals		Modoc NF	
18		Modoc	Cedarville (4112052)	NRIS polys, Aug. 2022 (050900E_ERPR9001_53)	21-Jul-1993	350 individuals		Modoc NF	
18	[Warner Mountains,] Cedar Pass.	Modoc	Cedarville (4112052)	CCH2, Feb. 2023 (RENO28701)	8-Jul-1962	Dry hillside		Modoc NF	6900

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
19	NORTHEAST END OF HUNSINGER FLAT, ALONG DIRT ROAD RUNING PARALLEL ON THE EAST SIDE OF USFS ROAD 38N04, NW OF ASH VALLEY.	Lassen	Lane Reservoir (4112017)	CNDDB, Feb. 2023 (EO 25)	11-Apr-2003	NORTHERN COLONY: ABOUT 100 PLANTS OBSERVED IN 1994 AND 40 PLANTS OBSERVED IN 2003. ABOUT 100 PLANTS OBSERVED IN SOUTHERN COLONY IN 2003. DRY, WELL DRAINED, LITHIC GRAVELS-SANDS WITH SOME ROCK OUTCROPS. ASSOCIATED WITH IVESIA PANICULATA, ASTRAGALUS ANXIUS, ASTRAGALUS PULSIFERAE PULSIFERAE, PINUS PONDEROSA, JUNIPERUS OCCIDENTALIS, LOMATIUM RAVENII, ARTEMISIA TRIDENTATA, ETC.	ROAD NEAR POPULATION, MINOR TRAMPLING BY CATTLE.	Modoc NF	5260
19	Hunsinger Flat.	Lassen	Lane Reservoir (4112017)	CCH2, Feb. 2023 (RENO114 542)	24-Jun-2007	Growing on a slight slope; in fairly fine gravel; in volcanic scabland.		Modoc NF	5275
19		Lassen	Lane Reservoir (4112017)	NRIS polys, Aug. 2022 (050900E_ ERPR9021 _54)	11-Apr-2003	100 individuals		Modoc NF	

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
19		Lassen	Lane Reservoir (4112017)	NRIS polys, Aug. 2022 (050900E_ERPR9010_54)	11-Apr-2003	40 individuals		Modoc NF	
19		Lassen	Lane Reservoir (4112017)	NRIS polys, Aug. 2022 (050900E_ERPR9010_54)	17-Jun-1994	40 individuals		Modoc NF	
20	ABOUT 1.25 MILES EAST OF PATTERSON LAKE AND 0.3 MILE NNW OF LINDEMENN LAKE, EAST OF WARREN PEAK, WARNER MOUNTAINS.	Modoc	Warren Peak (4112042)	CNDDB, Feb. 2023 (EO 26)	30-Jul-1996	500+ PLANTS OBSERVED IN 1996. SITE IS WITHIN THE SOUTH WARNER WILDERNESS. ON LIGHT TO DARK GRAY GRAVELLY SOILS WITH WEST ASPECT. ASSOCIATED WITH ERIOGONUM DOUGLASII, E. UMBELLATUM, PHLOX MUSCOIDES, ERIGERON ELEGANTULUS, ARENARIA, IVESIA, STENOTUS ACAULIS, AND PHLOX SP.		Modoc NF (South Warner Wilderness)	8700

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
20		Modoc	Warren Peak (4112042)	NRIS polys, Aug. 2022 (050900E_ERPR9014_53)	30-Jul-1996	500 individuals		Modoc NF (South Warner Wilderness)	
21	NNW OF CEDARVILLE NEAR HEAD OF SOLDIER CREEK, ABOUT 3.5 MI WEST OF JUNCTION OF COUNTY RD 17 AND COUNTY RD 1, WARNER MTS.	Modoc	Cedarville (4112052), Payne Peak (4112053)	CNDDB, Feb. 2023 (EO 27)	22-Jun-1994	1994 POPULATION NUMBERS: BETWEEN 51-100 PLANTS ESTIMATED IN WESTERN COLONY AND BETWEEN 101-1000 ESTIMATED IN EASTERN COLONY. VOLCANIC BLUFF AND SLOPE WITH VOLCANIC GRAVEL. ASSOCIATED WITH ERIOGONUM SPHAEROCEPHALUM, LEWISIA REDIVIVA, ARENARIA KINGII, TRIFOLIUM MACROCEPHALUM, PHLOX HOODII, POA SECUNDA, AND JUNIPERUS OCCIDENTALIS.	GRAZING AND ROAD.	Modoc NF	6500
21		Modoc	Cedarville (4112052), Payne Peak (4112053)	NRIS polys, Aug. 2022 (050900E_ERPR9008_53)	22-Jun-1994	200 individuals		Modoc NF	

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
21		Modoc	Cedarville (4112052), Payne Peak (4112053)	NRIS polys, Aug. 2022 (050900E_ERPR9002_53)	22-Jun-1994	80 individuals		Modoc NF	
22	NNW OF CEDARVILLE NEAR HEAD OF SIMPSON CANYON, ABOUT 1.7 MI WEST OF COUNTY RD 17 AT SIMPSON CREEK CROSSING, WARNER MTS.	Modoc	Cedarville (4112052)	CNDDB, Feb. 2023 (EO 28)	25-Jun-2002	FEWER THAN 50 PLANTS OBSERVED IN 1994. UNKNOWN NUMBER OF PLANTS SEEN IN 2001. 50 PLANTS OBSERVED IN 2002. ON VERY ROCKY CINDER TALUS LOPE. ASSOCIATED WITH PHLOX MUSCOIDES, ASTRAGALUS WHITNEYI, ARENARIA KINGII, LOMATIUM RAVENII, AND GALIUM GLABRESCENS SSP. MODOCENSE.	ROAD ENDS IN POPULATION.	Modoc NF	7200
22	Modoc National Forest, Warner Mountains. Just E of Bald Mountain above Simpson Canyon. Rocky outlook area at end of forest service road. Top of main rock lookout.	Modoc	Cedarville (4112052)	CCH2, Feb. 2023 (OBI: specimen not yet accessioned)	30-Jun-2022	Volcanic talus community. Very rocky, many scattered forbs and low-growing shrubs. Tertiary volcanic substrate, rocky-gravelly soil with pockets of loam, level to E facing slope.		Modoc NF	7295

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
22		Modoc	Cedarville (4112052)	NRIS polys, Aug. 2022 (050900E_ERPR9009_53)	25-Jun-2002	50 individuals		Modoc NF	
22	Warner Mountains - ~ 1.25 mi E of Bald Mt	Modoc	Payne Peak (4112053)	Calflora, Feb. 2023 (jgr19196)	9-Jun-2001	1+ individuals		Modoc NF	7805
22		Modoc	Cedarville (4112052)	NRIS polys, Aug. 2022 (050900E_ERPR9009_53)	1-Jan-1994	50 individuals		Modoc NF	
23	NW END OF HARVEY VALLEY, 1 MILE SSW OF DIXIE SPRING AND 1 MILE SOUTHEAST OF ASPEN WELL.	Lassen	Harvey Mtn. (4012161)	CNDDB, Feb. 2023 (EO 30)	14-Jun-2011	ABOUT 200 PLANTS OBSERVED IN 2004 AND 2011. LOW ROCKY RIDGE/OUTCROP WITH SCATTERED TREES GROWING IN ROCKY, SANDY, THIN SOIL. ASSOCIATED WITH ERICAMERIA GREENEI, POA SECUNDA, ELYMUS ELYMOIDES, ERIOGONUM UMBELLATUM, ARTEMISIA ARBUSCULA, LEPTODACTYLON PUNGENS, LOMATIUM BICOLOR, ETC.	GRAZING, PRESCRIBED FIRE.	Lassen NF	5600

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
23	Harvey Valley	Lassen	Harvey Mtn. (4012161)	NRIS polys, Aug. 2022 (050658-ERPR9-001)	14-Jun-2011	200 individuals	None	Lassen NF	
23		Lassen	Harvey Mtn. (4012161)	NRIS polys, Aug. 2022 (050658-ERPR9-001)	16-Jun-2004			Lassen NF	
24	ABOUT 3 MILES EAST OF LIKELY ON NORTH SIDE OF JESS VALLEY ROAD.	Modoc	Tule Mountain (4112024)	CNDDB, Feb. 2023 (EO 31)	8-Jun-2006	6 PLANTS AND 5 PLANTS OBSERVED AT TWO SEPARATE SITES IN 2006. WHITE ASHY OUTCROP ON SMALL KNOLLS WITH BIG SAGE, THURBER'S NEEDLEGRASS, SCUTELLARIA NANA, AND LEUCOCRINUM MONTANUM.	GRAZING, NEAR PAVED ROAD. MEDUSAHEAD NEARBY.	BLM	4600

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
25	11 AIR MI SSW OF ALTURAS; JEEP ROAD ASCENDING TO PLATEAU FROM COUNTY ROAD 62, ~1.5 AIR MI ESE OF WADE WILLIAMS SPRING.	Modoc	Infernal Caverns (4112035)	CNDDB, Feb. 2023 (EO 32)	13-May-2004	ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 2004 COLLECTION BY TAYLOR. NEED MAP DETAIL FOR THIS SITE. OPENING IN JUNIPERUS OCCIDENTALIS SSP. OCCIDENTALIS WOODLAND. STONY ANDESITE VOLCANIC SUBSTRATE, SPARSE SHRUB COVER. ASSOCIATED WITH ARTEMISIA ARBUSCULA.		BLM	5000
25	11 air miles SSW of Alturas; jeep road ascending to plateau from County Road 62, ca. 1.5 mi S73degE of mapped location of Wade Williams Spring on quadrangle	Modoc	Infernal Caverns (4112035)	CCH2, Feb. 2023 (JEPS109844)	13-May-2004	opening in Juniperus occidentalis subsp. occidentalis woodland, stony andesite volcanic substrate, sparse shrub cover (Artemisia arbuscula)		BLM	5000

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
26	0.5 TO 1 AIR MILE NORTHEAST OF LINDERMAN LAKE, APPROXIMATLEY 1.5 AIR MILES ENE OF WARREN PEAK.	Modoc	Warren Peak (4112042)	CNDDB, Feb. 2023 (EO 33)	11-Aug-1997	1997 POPULATION NUMBERS: >500 ESTIMATED IN WESTERN COLONY AND >100 ESTIMATED IN EASTERN COLONY. PLANTS IN WESTERN COLONY ARE WIDELY SCATTERED, OCCURRING IN SMALL SEPARATE CLUMPS. EASTERN COLONY IS SMALL & ISOLATED, MAY EXTEND DOWNSLOPE NE. 0-10% SLOPE. ASSOCIATED WITH ERIOGONUM DOUGLASII, E. UMBELLATUM, ARENARIA KINGII VAR. GLABRESCENS, STENOTUS ACAULIS, LUPINUS LEPIDUS VAR. LOBBII, CHAENACTIS DOUGLASII, CRYPTANTHA HUMILIS, AND PHLOX MUSCOIDES.	MINOR TRAIL AND GRAZING IMPACTS IN WESTERN COLONY. EASTERN COLONY IN SOUTH WARNER WILDERNESS.	Modoc NF (South Warner Wilderness)	8000

Duplicate records from the same site are given the same record number and are included in red. Rows containing questionable records are highlighted in pink.									
Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
26		Modoc	Warren Peak (4112042)	NRIS polys, Aug. 2022 (050900E_ERPR9016_53)	11-Aug-1997	100 individuals		Modoc NF (South Warner Wilderness)	
26		Modoc	Warren Peak (4112042)	NRIS polys, Aug. 2022 (050900E_ERPR9017_53)	11-Aug-1997	500 individuals		Modoc NF (South Warner Wilderness)	
27	APPROXIMATELY 7 AIR MILES SOUTHWEST OF ALTURAS.	Modoc	Alturas (4112045)	CNDDB, Feb. 2023 (EO 34)	7-May-1992	ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1992 COLLECTION BY TAYLOR. NEED MAP DETAIL FOR THIS SITE. ON HILLSIDE IN OPEN SCRUB SURROUNDED BY JUNIPERUS OCCIDENTALIS WOODLAND, ON WHITE VOLCANIC TUFF.		BLM	4600
27	ca. 7 air miles SW of Alturas,	Modoc	Alturas (4112045)	CCH2, Feb. 2023 (UC1735878)	7-May-1992	on hillside in open, scrub surrounded by Juniperus occidentalis woodland, on white volcanic tuff		BLM	4600

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
28	CENTERVILLE ROAD, ABOUT 10 MILES SOUTHWEST OF ALTURAS.	Modoc	Rattlesnake Butte (4112046)	CNDDB, Feb. 2023 (EO 35)	4-Jul-1993	ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1993 COLLECTION BY ANDRE. NEEDS FIELDWORK.		Unknown	4500
28	Centerville Rd. about 10 miles SW of Alturas	Modoc	Rattlesnake Butte (4112046)	CCH2, Feb. 2023 (UCR163354)	4-Jul-1993			Unknown	4502
29	JUST SOUTH OF FENCE LINE SEPARATING BUSHY RANCH & MODOC NF, ABOUT 1 AIR MILE ENE OF RUCKER HILL.	Modoc	Washington Mtn. (4112048)	CNDDB, Feb. 2023 (EO 36)	9-Oct-2012	~610 PLANTS OBSERVED IN 2000. 100 PLANTS OBSERVED IN 2012. ALTURAS VOLCANIC GRAVEL. ASSOCIATED WITH ARTEMISIA ARBUSCULA, ERIOGONUM SPHAEROCEPHALUM, E. NUDUM, PHLOX CANESCENS, ASTRAGALUS PURSHII, ALLIUM PLATYCAULE, ELYMUS ELYMOIDES, POA SCABRELLA, AND BROMUS TECTORUM.	VEHICLE TRAFFIC, POSSIBLE CATTLE GRAZING/TRAMPLING, INVASIVE WEEDS.	Modoc NF	4280
29		Modoc	Washington Mountain (4112048)	NRIS polys, Aug. 2022 (050900E_ERPR9020_54)	18-Jun-2000	610 individuals		Modoc NF	

Duplicate records from the same site are given the same record number and are included in red. Rows containing questionable records are highlighted in pink.									
Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
30	ON PEAK 7280 AND ALONG RIDGE TO SOUTHEAST, 1 MILE NORTHWEST OF POISON LAKE.	Modoc	Willow Ranch (4112083)	CNDDB, Feb. 2023 (EO 37)	2-Jul-1997	350 PLANTS OBSERVED IN 1997. THE RARE DIMERESIA HOWELLII AND GALIUM SERPENTICUM SSP. WARNERENSE ALSO OCCUR AT THIS SITE. OPEN ROCKY RIDGETOP AND TOP OF SLOPE. FLAT TO MODERATE SLOPE, MOSTLY SOUTH AND WEST ASPECT. ASSOCIATED WITH ERIOGONUM CAESPITOSUM, STENOTUS ACAULIS, POA SECUNDA, ELYMUS ELYMOIDES, IPOMOPSIS CONGESTA, AND LEWISIA REDIVIDA.	ROAD RUNS THROUGH OCCURRENCE, THOUGH IT IS PROBABLY ONLY USED DURING HUNTING SEASON.	Modoc NF	7200
30		Modoc	Willow Ranch (4112083)	NRIS polys, Aug. 2022 (050900E_ERPR9018_53)	2-Jul-1997	350 individuals		Modoc NF	

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
31	ABOUT 1.1 AIR MILES NORTH OF TOM LEE MEADOWS AND 2.2 AIR MILES ENE OF PORTER RESERVOIR, MODOC NF.	Modoc	Warren Peak (4112042)	CNDDB, Feb. 2023 (EO 38)	31-Jul-2012	~50 PLANTS OBSERVED IN 2012. OPEN HILLTOP OF DECOMPOSED VOLCANICS. LITTLE VEGETATION. N ASPECT AT 15% SLOPE. ASSOCIATED WITH JUNIPERUS OCCIDENTALIS, POA SECUNDA, STENOTUS SP., ASTRAGALUS, SP., PHLOX HOODII, ARABIS SP., AND ARENARIA ACULEATA.	EROSION.	Modoc NF (partially within South Warner Wilderness)	6307
31	MDF-ERPR9-023	Modoc	Warren Peak (4112042)	NRIS polys, Aug. 2022 (050900E_ERPR9023_53)	31-Jul-2012	50 individuals		Modoc NF (partially within South Warner Wilderness)	

Duplicate records from the same site are given the same record number and are included in red. Rows containing questionable records are highlighted in pink.									
Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
32	EAST SIDE OF USFS ROAD 42N49, NEAR HEAD OF GREENS CANYON AND HORSE CANYON, MODOC NF.	Modoc	Payne Peak (4112053)	CNDDB, Feb. 2023 (EO 39)	28-Jul-2009	UNKNOWN NUMBER OF PLANTS OBSERVED IN 2009. RIDGELINE BETWEEN TWO STEEP SLOPES. SUBSTRATE IS LIGHT-COLORED VOLCANIC ROCK AND FINE SOIL DERIVED FROM THIS ROCK. ASSOC W/ ERIOGONUM UMBELLATUM, CERCOCARPUS LEDIFOLIUS, PHOENICAULIS CHEIRANTHOIDES, STENOTUS STENOPHYLLUS, AND S. ACAULIS.	PROPOSED FENCELINE THROUGH MIDDLE OF OCCURRENCE. POTENTIAL TRAMPLING BY COWS MOVING ALONG FENCELINE.	Modoc NF	6700
32	MDF-ERPR9-022	Modoc	Payne Peak (4112053)	NRIS polys, Aug. 2022 (050900E_ERPR90022_53)	23-Jul-2009	40 individuals. Located on ridgeline between two steep slopes. Substrate on ridge is unique- lots of light colored volcanic rock and soil derived from this rock. Occurence is limited to this substarte on the ridge.	Proposed fenceline would run through the middle of the occurence. Cows walking the fenceline would trample the occurence.	Modoc NF	

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
33	WEST OF SKEDADDLE CREEK AND THE CA/NV STATE LINE, ABOUT 4.6 AIR MILES NNW OF HIGH ROCK RANCH.	Lassen	Spencer Creek (4012031)	CNDDB, Feb. 2023 (EO 40)	26-Jul-2016	LESS THAN 1% COVER OF ERIOGONUM PROCIDUUM OBSERVED DURING 2016 VEGETATION SURVEY. ASSOCIATED WITH ARTEMISIA ARBUSCULA, A. TRIDENTATA, ATRIPLEX CONFERTIFOLIA, MICROSTERIS GRACILIS, BLEPHARIPAPPUS SCABER, CRYPTANTHA, CREPIS, BALSAMORHIZA HOOKERI, STIPA, ELYMUS ELYMOIDES, DESCURAINIA SOPHIA, BROMUS TECTORUM, ETC.		BLM	4780
	Warner Mountains, head of upper South Deep Creek	Modoc		Calflora, Feb. 2023, CCH2 2023 (UC1735880)	27-Jun-1987			Modoc NF	7200
	1.3 miles S of EO39	Modoc	Shields Creek (4112043)	NRIS polys, Aug. 2022 (050900E_ERPR9019_53)	12-Jun-1996	0 individuals		Modoc NF	

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
	1.3 miles S of EO40	Modoc	Shields Creek (4112043)	NRIS polys, Aug. 2022 (050900E_ERPR9019_53)	27-Jun-1987	0 individuals		Modoc NF	
	Warner Mountains, along Modoc Nat'l. For. Road 31. TRS est approx.	Modoc		CCH2, Feb. 2023 (SOC21452)	9-Jun-2001	Gravelly sagebrush scrub with a few conifers.			5000
	Jepson field class on Eriogonum			CCH2, Feb. 2023 (VVC1972)	Jul-1997				

Appendix 2: Additional Considerations at the Forest Level

<This section, including the next 5 subheadings, would be filled out by **Forest Service botanists**.>

<Forest Name>

Geographic distribution within the Forest

A. Scarce or isolated
B. Patchy or gaps
C. Contiguous

<Select a geographic distribution rank and provide references or cite 'specialist expertise, <name>' where appropriate.>

Abundance of the species on the Forest

A. Rare – current abundance is low enough that stochastic and other factors could lead to potential imperilment.
B. Uncommon – current abundance is large enough that demographic stochasticity is not likely to lead to rapid local extinction, but, in combination with highly variable environmental factors, could pose a threat.
C. Common – current abundance is large enough that species persistence is not threatened by demographic stochasticity in combination with environmental variation.
D. Insufficient information to draw inferences about criterion.

<Select a species abundance rank and provide references or cite 'specialist expertise, <name>' where appropriate.>

Population trend on the Forest

A. Significant downward or suspected downward population trend.
B. Stable population.
C. Upward population trend.
D. Insufficient information to draw inferences about criterion.

<Select a population trend rank and provide references or cite 'specialist expertise, <name>' where appropriate.>

Habitat trend on the Forest

A. Decline in habitat quality or quantity.
B. Stable amounts of suitable or potential habitat, relatively unchanged habitat quality.
C. Improving habitat quality or increasing amounts of suitable or potential habitat.
D. Insufficient information to draw inferences about criterion.

<Select a habitat trend rank and provide references or cite 'specialist expertise, <name>'where appropriate.>

Vulnerability of habitat on the Forest

A. Substantial modification of habitat has occurred or is anticipated with conditions departing from expectations based on NRV, and/or habitat is impacted by modern stressors such as drought, climate change, high intensity wildfire and wildfire suppression disturbances, loss of natural openings due to historical wildfire suppression, nonnative invasive species, water impoundments and diversions, and recreation, etc.
B. Habitat modification is likely to result in ecological patterns similar to the range of historical conditions, but is being impacted by modern stressors.
C. Habitat resilient, changes are similar in frequency and intensity to those expected from NRV, and modern stressors not significant.
D. Insufficient information to draw inferences about criterion.

<Select a habitat vulnerability rank and provide references or cite 'specialist expertise, <name>'where appropriate.>

Additional Forest specific information related to the SCC determination

<This section is provided for Forest botanists to add additional Forest specific information that is not captured in the section above, if necessary. Provide a narrative description here of the additional relevant information. State "No additional information" if this section is not used.>