Species: *Chaenactis suffrutescens* A. Gray, Shasta chaenactis

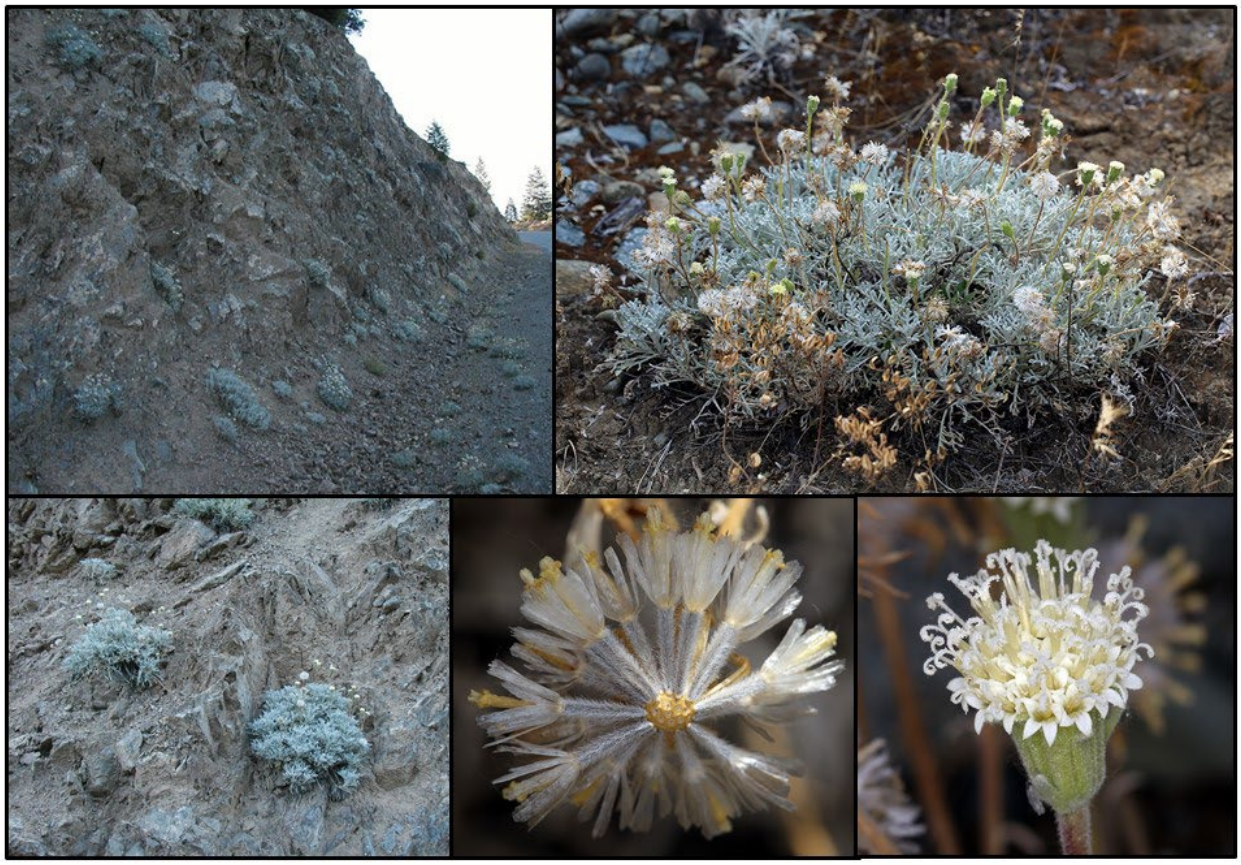


Photo Source: CalPhotos 2020
Photo Credits: upper left and lower right: Shasta-Trinity National Forest; all other photos: Steve Matson

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 Shasta chaenactis		
Entity	**Status**	**Status Definition**
NatureServe CA[a]	G2G3 S2S3	G2: Imperiled — At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors. G3: Vulnerable — At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.

Table 1. Current status of Shasta chaenactis		
Entity	**Status**	**Status Definition**
		S2: Imperiled — Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state/province. 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.
California Rare Plant Rank[b]	1B.3	1B: Plants rare, threatened, or endangered in California and elsewhere 0.3: Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known) This taxon was added to the *CNPS Inventory of Rare and Endangered Plants of California* in 1974 on List 4, was changed to List 1B in 1994, and has undergone no further changes.
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]	Not present	
Oregon State Listing[h]	Not present	
NatureServe NV[i]	Not present	
Nevada State Listing[j]	Not present	

[a] California Natural Diversity Database, California Dept. of Fish & Wildlife [CNDDB 2020]
[b] California Native Plant Society [CNPS 2020]
[c] California Department of Fish and Wildlife [CDFW 2020]
[d] US Forest Service Region 5 Forester's List [USDA] and Pacific NW Survey and Manage [USDA & BLM 2014]
[e] US Department of Interior Fish and Wildlife Service [USFWS 2020]
[f] US Department of Interior Bureau of Land Management [BLM 2015]
[g] Oregon Biological Information Center [ORBIC 2019]
[h] Oregon Department of Agriculture [ODA 2018]
[i] Nevada Natural Heritage Program [NNHP 2020]
[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.

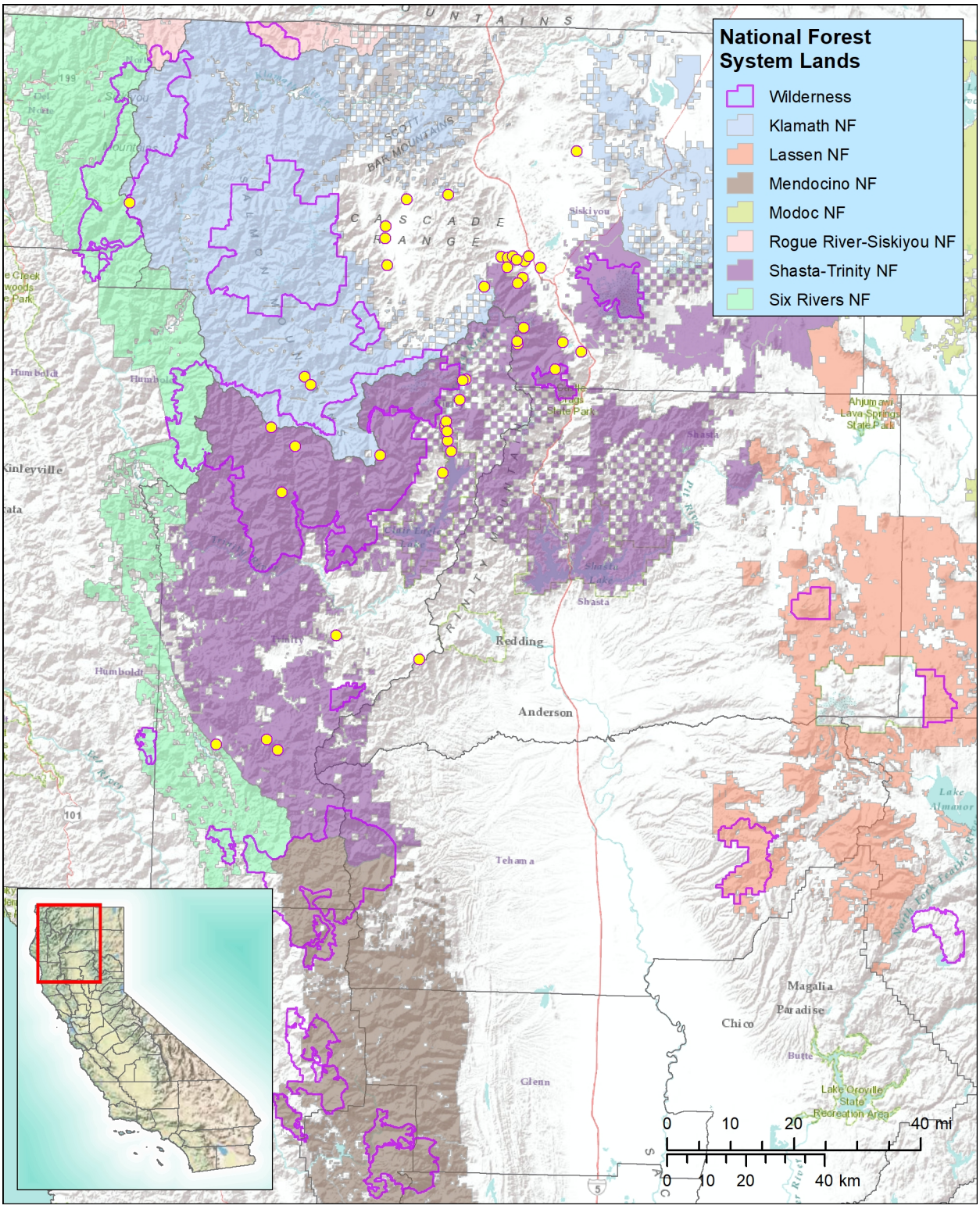
Distribution, abundance, and population trend on the planning unit[1]

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 Shasta chaenactis within the Planning Area (NRIS, CNDDB, Calflora/CCH databases)

National Forest System (NFS) lands	Record #s (from Locations table below)	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
Klamath:	(1), (6), 10, 25, 39, 45	2 (2)	2	2	2 (2)	4-Jul-2020	4 (2)
Shasta-Trinity:	1, 3, 4, 5, 6, 8, 9, 12, 18, 19, 27, 28, 31, 32, 33, 40, 42, 44	15	3	7	11	17-Jul-2020	18
Totals:	N/A	17	5	9	13	N/A	22

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



Distribution. Sources: *Distribution*: Calflora 2021, CCH2 2021, CNDDB 2021, NRIS 2020. *Baselayers*: 2013 National Geographic Society, i-cubed, Esri, Garmin, NOAA, NPS, USGS.

Shasta chaenactis was last updated in the CNDDB on September 29, 2014 (CNDDB 2020), and therefore most Calflora, CCH, and/or NRIS records prior to this date were already reviewed and entered into the CNDDB for this plant. Accordingly, only records from Calflora and/or NRIS reported after this date, and all CCH2 data, were reviewed for potential new or updated occurrence information and are included in Table 4 in Appendix 1 as applicable.

This species is found in the Klamath Ranges (KR), high Cascade Range (CaRH), and high North Coast Ranges (NCoRH) bioregions of Shasta, Siskiyou, and Trinity counties, California. Of the 45 location records, 22 are located on National Forest land, with 16 on the Shasta-Trinity NF, four on the Klamath NF, and two on the border of those two National Forests; five location records are located within Wilderness Area. Of the 45 records, 29 are historical with 22 based solely on herbarium specimens, some over a century old. Attempts have been made to relocate two of the historical occurrences, but they have not been found. Six other historical occurrences were visited in the 1990s, and at that time, most occurrences had between 50 and 650 individuals. Of the 16 recent occurrences, 14 have population estimates, and they range in size from one plant to 800 plants, with most below 400 plants. Only six recent occurrences have been visited over time, and four of those are on Forest Service land. The numbers of individuals over time for these occurrences vary widely (considering Shasta chaenactis is a perennial), without an overall population trend. In some cases, the counts increase, and in others, the counts decrease.

Several of the locations in Table 4 may have been partially or fully extirpated due to flooding or other changes in the location of river channels. These include: part of record #8, which was both swept away by a flooding event along Hwy 3 and then used as a location to deposit flood spoils; record #26, which may have been extirpated due to the creation of Trinity Lake; and record #30, which was swept away due to flooding along Coffee Creek.

At the bottom of Table 4, there are ten specimen records that are highlighted in pink. These ten records, all obtained from the CCH2 dataset, have vague or no location data and could not be georeferenced with enough precision to include in the distribution analysis. Four of these specimens are from “Mt. Shasta” or “Mt. Shasta and vicinity.” These locations are similar to location record #11, which is based on specimens from Cantara and the headwaters of the Sacramento River. It may be that collections attributed to Mt. Shasta and Cantara are referring to train stop/landmark names, and the collections were actually made to the west in the Eddys. Shasta chaenactis is a strict ultramafic endemic (including sites with mixed cobble of ultramafics and granitics), and that habitat is not found on Mt. Shasta, in Shasta Valley east of I-5, or at Cantara downstream from Siskiyou Lake, although the Trinity Ultramafic Sheet does come into contact with the upper Sacramento River near Dunsmuir (Kierstead 2021 pers. comm.).

Of the 45 location records of Shasta chaenactis included in this analysis, 38 are currently included in the CNDDB. The seven non-CNDDB record are located more than 0.3 mile from a known CNDDB occurrence. These records seem to represent new occurrences and should perhaps be evaluated for inclusion in the CNDDB.

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

Shasta chaenactis is a short, shallowly-rooted, perennial herb or subshrub with white matted hairs on the stems and leaves; it blooms from May to September (JEPS 2020, CNPS 2020). It grows in very open lower or upper montane coniferous forest on ridges, roadcuts, and upper alluvial river terraces in sandy, rocky, or gravelly substrates (rarely clay) that generally have ultramafic content (peridotite, serpentine, gabbro) at 730–2800 m in elevation (CNDDB 2020, CNPS 2020, Kierstead 2021 pers. comm.). In addition to having soils with ultramafic content, the habitats where Shasta Chaenactis are found all have substrates that drain quickly, exposure to high light levels, little competition from other plants, and periodic pulses of disturbance followed by long periods of stability (Kierstead 2021 pers. comm.). Frequent associates include *Pinus ponderosa*, *P. jeffreyi*, *Pseudotsuga menziesii*, *Calocedrus decurrens*, *Cercocarpus ledifolius*, *Ericameria nauseosa*, *Artemisia tridentata*, *Ceanothus cuneatus*, *Eriogonum* spp., *Eriophyllum lanatum*, *Elymus elymoides*, *Festuca idahoensis*, and *Bromus tectorum* (CNDDB 2020).

The genus *Chaenactis* contains 18 species that occupy relatively dry habitats of the western United States and adjacent Canada and Mexico with eight perennial species placed in *Chaenactis* section *Macrocarphus* (FNA 1993+, Mooring 1965). Raven and Kyhos (1961) citing the 1940 work of Stockwell hypothesized that based on their low chromosome number (n=6), which is the base number in the genus, the perennial species of *Chaenactis* are more ancient than the annual *Chaenactis* species. Mooring (1965) did the first chromosome count of *C. suffrutescens* from a population near Greenview in Siskiyou County, and he found that it matched that of the other perennial species; he also hypothesized that the perennial species should occur in floristically more ancient regions (such as the Klamath Ranges bioregion) and vegetation types (such as conifer forest). If true, this makes Shasta chaenactis another example of a relictual species in the Klamath Ranges bioregion.

The reproductive biology of Shasta chaenactis has not yet been studied. All flowers in the heads of *Chaenactis* species are bisexual and produce fruits (FNA 1993+). The anthers and the stigmas are often exerted from the corolla tube (JEPS 2020) that should promote outcrossing. Studies of another perennial *Chaenactis*, the widespread *C. douglasii*, found that most flowers require outcrossing to produce fertile fruits (only 15% of self-pollinated flowers produced fertile fruits) (Cane 2012). Pollinators known to visit *C. douglasii* include numerous genera of bees and butterflies, while bees, butterflies and moths have been seen visiting the annual *C. glabriuscula* (Cane et al. 2012, CPC 2020). The fruit of Shasta chaenactis is a dried indehiscent fruit that contains one seed (called an achene or cypsela), and the fruit and enclosed seed are dispersed as a unit (JEPS 2020). Due to the well-developed pappus (translucent scales) attached to the fruit, the fruit can become airborne and be wind-dispersed (JEPS 2020). Given that many of the populations of Shasta chaenactis are located near stream and rivers, it is also likely that the fruits are further dispersed by flooding. The species is usually found on bare soil, perhaps exposed to recent or occasional disturbance, and its relative *C. douglasii* is known to persist after fire (Cane 2012). It may not do well in situations where its habitat is invaded by non-natives that increase plant density. In his chromosome studies, Mooring (1973) found that many of the fruits of Shasta chaenactis collected from near Coffee Creek Ranger Station in Trinity County were empty, and those that were not empty had a germination rate of less than one percent. This could indicate that the population was pollinator-limited that particular year. This may not be typical

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

of the species as a whole. In attempts to restore part of the population at record #8, achenes were collected from the site several times, and plants successfully germinated and grown at the Forest Service Mt. Shasta nursery, but when outplanted on the site, the plants failed to survive (Kierstead 2021 pers. comm.).

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

This species is restricted to soils with at least some ultramafic content within the Klamath Ranges bioregion. It has a broad distribution, with four occurrences located in Wilderness Area, and further exploration in the region may result in the discovery of more occurrences. The genus *Chaenactis* is known to tolerate disturbance and inhabit early seral habitats, and many of the 45 occurrences are located on stabilized roadcuts or in rocky floodplains. Because of the habitats where it is located, frequent threats that are listed for this species are road maintenance and construction, invasive species (such as *Isatis tinctoria*), erosion, flooding, expansions of lakes, and changes in the courses of drainages (which may have destroyed more than one population along Coffee Creek and the Trinity River). Other threats include OHV use, grazing, and recreation (CNDDB 2020, Kierstead 2021 pers. comm.). Fifteen out of 45 occurrences have a site quality ranking in the CNDDB: four are given the rank of excellent (three are located on private land), seven are ranked good, two are ranked fair, and two are ranked poor (including the site where the plants appear to have been extirpated by flooding in Coffee Creek). Of those ranked fair to excellent, seven are on National Forest land (CNDDB 2020). Most population numbers reported to the CNDDB for Shasta chaenactis range from 50 to 650 plants, although there is one population count of 800 plants and one of 1,500 plants (CNDDB 2020). There is very little data on how the occurrences are doing over time, with only five recent occurrences visited more than once, and no clear populations trends. As this species is a perennial that tolerates some disturbance, and it has the ability to disperse via wind and perhaps water, it may persist by establishing new populations, despite changes to its current locations. Adverse affects on this species due to climate change would most likely involve changes in rainfall patterns (which could affect seed dispersal, seed germination, and plant longevity) and adverse affects on pollinator services. Conservation of this species has begun with seed collections that are being banked at the Berry Seed Bank (CNDDB 2020).

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

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

<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 historic 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.>

Taxonomy[4]

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

Table 3. Name status of Shasta chaenactis

Entity	Name Status
CNDDB and CNPS	*Chaenactis suffrutescens* Gray
Jepson eFlora	*Chaenactis suffrutescens* A. Gray
Jepson Manual (1993)	*Chaenactis suffrutescens* A. Gray
Flora of North America	*Chaenactis suffrutescens* A. Gray
USDA NRCS[a] PLANTS	*Chaenactis suffrutescens* A. Gray
[a] Natural Resources Conservation Service [NRCS]	

Synonymy: *Chaenactis suffrutescens* var. *incana* Stockw. (TROPICOS 2020). Contr. Dudley Herb. 3: 108 (1940) (IPNI 2020).

Jepson eFlora link: https://ucjeps.berkeley.edu/eflora/eflora_display.php?tid=1991

Type locality: "Rocky banks of the Sacramento below Mount Shasta, California" (*Lemmon s.n.*, UC) (Global Plants 2020, Gray 1881).

Key literature

Cane, J. H., B. Love, and K. Swoboda. 2012. Breeding biology and bee guild of Douglas' dustymaiden, *Chaenactis douglasii* (Asteraceae, Helenieae). *Western North American Naturalist* 72: 563-568.

Gray, A. 1881. Contributions to North American Botany. *Proceedings of the American Academy of Arts and Sciences* 16: 78-100.

Mooring, J. S. 1965. Chromosome studies in *Chaenactis* and *Chamaechaenactis* (Compositae, Heleniae). *Brittonia* 17: 17-25.

Mooring, J. S. 1973. Chromosome counts in *Eriophyllum* and other Helenieae (Compositae). *Madroño* 22: 95-97.

Raven, P. H. and D. W. Kyhos. 1961. Chromosome numbers in Compositae. II. Helenieae. *American Journal of Botany* 48: 842-850.

[4] 1909.12, Chapter 10, Section 12.53, component 1.

Literature cited

[BLM] U.S. Dept. of Interior Bureau of Land Management. 2020. Special Status Plants in California, Including BLM Designated Sensitive Species. January 17, 2020. Provided by Christina Lund, State Botanist, California BLM on 30 April 2020.

Calflora. 2021. Information on wild California plants for conservation, education, and appreciation. Website http://www.calflora.org/ [accessed October 2021].

Cane, J. H., B. Love, and K. Swoboda. 2012. Breeding biology and bee guild of Douglas' dustymaiden, *Chaenactis douglasii* (Asteraceae, Helenieae). *Western North American Naturalist* 72: 563-568.

[CDFW] California Department of Fish and Wildlife, Natural Diversity Database. 2020. State and Federally Listed Endangered, Threatened, and Rare Plants of California. Last updated January 2, 2020. 10 pp. Available at https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109390&inline [accessed August 2020].

[CNDDB] California Department of Fish and Wildlife, Natural Diversity Database. 2021. RareFind 5 [Internet application] and CNDDB Maps and Data, Version 5.2.14. Available at: https://www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data [Government Version, October 2021].

____. 2020a. Special Vascular Plants, Bryophytes, and Lichens List. Quarterly publication, January 2020. 140 pp. Available at https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109383&inline [accessed August 2020].

[CNPS] California Native Plant Society, Rare Plant Program. 2020. *Inventory of Rare and Endangered Plants of California* (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed August 2020].

[CPC] Center for Plant Conservation. 2020. CPC National Collection Rare Plant Database. Website https://saveplants.org/national-collection/pollinator-search/ [accessed August 2020].

[CCH2] Consortium of California Herbaria, CCH2 Portal. 2021. Data provided by the California Phenology TCN. Website http//:www.cch2.org/portal/index.php [accessed October 2021].

[FNA] Flora of North America Editorial Committee, eds. 1993+. *Flora of North America North of Mexico*. 20+ vols. Missouri Botanical Garden, New York and Oxford. Vol. 21, 2006.

Gray, A. 1881. Contributions to North American Botany. *Proceedings of the American Academy of Arts and Sciences* 16: 78-100.

[JEPS] Jepson Flora Project (eds.). 2020. Jepson eFlora. Website http://ucjeps.berkeley.edu/IJM.html [accessed August 2020].

Mooring, J.S. 1965. Chromosome studies in *Chaenactis* and *Chamaechaenactis* (Compositae, Heleniae). *Brittonia* 17: 17-25.

Mooring, J.S. 1973. Chromosome counts in *Eriophyllum* and other Helenieae (Compositae). *Madroño* 22: 95-97.

[NRCS] U.S. Department of Agriculture, Natural Resources Conservation Service. 2020. PLANTS Database. Website http://plants.usda.gov/ [accessed August 2020].

[NRIS] U.S. Department of Agriculture Forest Service, Natural Resource Information System. 2020. Natural Resource Information System; Threatened, Endangered and Sensitive Plants - Invasive Plants [accessed April 2020].

[NDF] Nevada Division of Forestry. 2012. NAC 527.010 List of fully protected species of native flora. April 2012. Available at: https://www.leg.state.nv.us/NAC/NAC-527.html#NAC527Sec010 [accessed May 2020].

[NNHP] Nevada Natural Heritage Program. 2020. Tracking and Watch Lists. Department of Conservation and Natural Resources. Available at: http://heritage.nv.gov/botany [accessed May 2020].

[ODA] Oregon Department of Agriculture. 2018. Oregon listed and candidate plants - complete list. Native Plant Conservation Program. October 12, 2018. Available at: https://data.oregon.gov/Natural-Resources/Oregon-listed-and-candidate-plants-complete-list/8s3k-ygh2 [accessed May 2020].

[ORBIC] Oregon Biodiversity Information Center. 2019. Rare, Threatened and Endangered Vascular Plant Species of Oregon. Institute for Natural Resources, Portland State University, Portland, OR. 49 pp. Available at https://inr.oregonstate.edu/sites/inr.oregonstate.edu/files/2019-rte-vascs.pdf [accessed May 2020].

Raven, P.H. and D.W. Kyhos. 1961. Chromosome numbers in Compositae. II. Helenieae. *American Journal of Botany* 48: 842-850.

Tropicos. 2020. Missouri Botanical Garden. Website http://www.tropicos.org [accessed August 2020].

[USDA] U.S. Department of Agriculture Forest Service, Pacific Southwest Region. 2013. Regional Forester Sensitive Species List. Available at: http://www.fs.usda.gov/main/r5/plants-animals/plants [accessed May 2020].

[USDA & BLM] U.S. Department of Agriculture Forest Service and U.S. Department of Interior Bureau of Land Management. 2014. List of Survey and Manage Species in Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, protection Buffer, and other Mitigation Measures; as amended by Annual Species Reviews 2001-2003. Available at: https://www.blm.gov/or/plans/surveyandmanage/files/sm-fs-enc3-table1-1-dec2003wrtv.pdf [accessed May 2020].

[USFWS] U.S. Dept. Interior Fish and Wildlife Service. 2020. Endangered Species List. Available at: https://www.fws.gov/endangered. [accessed August 2020].

Persons Contacted

Kierstead, Julie. 2021. Forest Botanist, Shasta-Trinity National Forest (retired). Email correspondence regarding distribution, ecology, and threats for *Chaenactis suffrutescens.* Personal communications 17 August and 28 October 2020, 12 and 26 October 2021.

Lazar, Kristi. 2020. Rare Plant Botanist, California Department of Fish and Wildlife. Email correspondence regarding coordinates for masked Calflora observations. Personal communication 12 August 2020.

Author(s) and Date:

Ellen Dean and Jonathon Holguin, CNPS, 14 August 2020; revised 28 October 2021.

Reviewer(s) and Date:

Aaron E. Sims, 6 October 2020; David L. Magney, 6 October 2020; Julie Ann Kierstead, USDA Forest Service Region 5, Ecosystem Planning, 28 October 2020.

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 Shasta chaenactis 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 red.

Rec. #	Locality	County	Quad	Ref. (Source)	Date Last Obs'd	Population Info	Threats	Land Mgr.	Elev. (ft.)
1	2 MILES EAST OF TOP OF MARY BLAINE MOUNTAIN.	Siskiyou/ Trinity	Cecil Lake (4112312)	CNDDB, Oct 2021 (EO 1)	4-Aug-1935	ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1935 COLLECTION BY TRACY. NEEDS FIELDWORK.		Shasta-Trinity NF (border with Klamath NF). Trinity Alps Wilderness Area.	6400
2	JUNCTION OF HIGHWAY 3 AND COFFEE CREEK ROAD AT COFFEE CREEK, TRINITY RIVER.	Trinity	Carrville (4112216)	CNDDB, Oct 2021 (EO 2)	8-Jul-1995	500+ PLANTS OBSERVED IN 1995.	AT MOST, A SLIGHT IMPACT ANTICIPATED FROM ROAD MAINTENANCE AND CONSTRUCTION .	Unknown	2500
3	ONE-EYED FLAT, NORTH OF COFFEE CREEK STATION IN TRINITY RIVER CANYON.	Trinity	Carrville (4112216)	CNDDB, Oct 2021 (EO 3)	28-Jun-1997	~650 PLANTS OBSERVED IN 1997. PROBABLY THE SAME POPULATION AS USFS POPS 14-1 AND 14-3. A 1980 HOWELL COLLECTION FROM ONE-EYE FLAT IS ALSO ATTRIBUTED TO THIS OCCURRENCE.	ORV USE OBSERVED ON OPPOSITE SIDE OF HWY 3.	Shasta-Trinity NF, private	2480

Duplicate records from the same site are given the same record number and are included in red. Rows containing questionable records are highlighted in red.									
Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
4	TRINITY RIVER JUST SOUTH OF CARRVILLE; EAST SIDE OF HIGHWAY 3, EAST OF MOUTH OF USHER GULCH.	Trinity	Carrville (4112216)	CNDDB, Oct 2021 (EO 4)	2-Jun-2008	~250 PLANTS SEEN IN 3 NORTHERN POLYGONS IN 1998. 110 PLANTS SEEN IN N-MOST POLYGON AND 400 PLANTS SEEN IN S-MOST POLYGON IN 2008. A 1937 ROWNTREE COLLECTION FROM "TRINITY RIVER AT CARRVILLE" IS ALSO ATTRIBUTED TO THIS SITE.	ISATIS TINCTORIA FOUND SCATTERED, MAY BE POSSIBLE FUTURE THREAT TO POPULATION.	Shasta-Trinity NF, private	2400
4	Trinity County: Highway 3, Trinity River Canyon	Trinity	Carrville (4112216)	CCH2, Oct 2021 (DAV214666)	27-Jun-2015			Shasta-Trinity NF, private	2395
4	Weaverville District. Off HWY 3 at reference site. Growing in soil among cobbles in open area.	Trinity	Carrville (4112216)	CCH2, Oct 2021 (SPIF01996)	20-Aug-2018			Shasta-Trinity NF, private	2385
5	TRAIL TO SCORPION CREEK OFF OF ROAD BETWEEN TRINITY CENTER AND SCOTT MOUNTAIN (HIGHWAY 3).	Trinity	Carrville (4112216)	CNDDB, Oct 2021 (EO 5)	6-Jul-1949	ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1949 COLLECTION BY BALLS. NEEDS FIELDWORK.		Shasta-Trinity NF	2400

Duplicate records from the same site are given the same record number and are included in red. Rows containing questionable records are highlighted in red.									
Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
6	RIDGE OF RED ROCK MOUNTAIN.	Siskiyou/ Trinity	Caribou Lake (4112218)	CNDDB, Oct 2021 (EO 6)	2-Sep-1974	ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1974 COLLECTION BY MASTROGIUSEPPE. NEEDS FIELDWORK.		Shasta-Trinity NF (border with Klamath NF). Trinity Alps Wilderness Area.	7400
6	Klamath NF	Siskiyou	Caribou Lake (4112218)	NRIS, Mar 2020 (CHSU051 40010)	31-Jul-2014	200 individuals. On south side of ridge. Population appears very healthy and well-distributed. Slope of varying percents throughout occurrence. Gravelly-rocky area with relatively sparse plant cover.	No obvious immediate threats other than possible trampling but remote enough that this is a minor concern. Small user or wildlife-created trail nearby but otherwise no real signs of disturbance or use. Possible accessed from somewhat nearby trails or user-created trails but these are very minimal. There is a historic mine (Golinsky) nearby so perhaps gravel mining could threaten this species in the future.	Shasta-Trinity NF (border with Klamath NF). Trinity Alps Wilderness Area.	7200

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7	NEAR CASTLE LAKE, A SHORT DISTANCE FROM CASTLE CRAGS IN THE YELLOW PINE BELT.	Siskiyou	Seven Lakes Basin (4112224)	CNDDB, Oct 2021 (EO 7)	9-Jun-1928	MAIN SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1928 COLLECTION BY HELLER. A 1913 SMITH COLLECTION FROM "ROAD FROM SISSON [CITY OF MOUNT SHASTA] TO CASTLE LAKE" IS ALSO ATTRIBUTED TO THIS OCCURRENCE. NEEDS FIELDWORK.		Unknown	5500
8	EAGLE CREEK CAMPGROUND AND MOUTH OF RAMSHORN CREEK, BOTH SIDES OF TRINITY RIVER.	Trinity	Tangle Blue Lake (4112226)	CNDDB, Oct 2021 (EO 8)	31-May-2010	100+ PLANTS SEEN IN 1999. 45 PLANTS SEEN IN 2006. 1937 EASTWOOD COLLECTION FROM "BETWEEN EAGLE AND BEAR CREEKS" ATTRIBUTED HERE. EAGLE CREEK CAMPGROUND OBSERVATIONS FROM 1972, 1973, 1976, 2008, & 2010 ARE ALSO ATTRIBUTED HERE.	POSSIBLE THREATS INCLUDE RECREATION, HIGHWAY RELATED IMPACTS, AND DEVELOPMENT.	Shasta-Trinity NF	2850
8	Eagle Creek Campground.	Trinity	Tangle Blue Lake (4112226)	CCH2, Oct 2021 (STNF)	22-Jul-1980			Shasta-Trinity NF	3000
8	Gravelly floodplain of Trinity River.	Trinity	Tangle Blue Lake (4112226)	Calflora 2021 (mg117303)	28-Jun-2020			Shasta-Trinity NF	

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9	BEAR CREEK RD, 1.3-1.6 MI NORTH OF JUNCTION WITH HIGHWAY 3; ALONG TRINITY RIVER BETWEEN BEAR CREEK AND GRAVES CREEK.	Trinity	Tangle Blue Lake (4112226)	CNDDB, Oct 2021 (EO 9)	28-Jun-1997	~1500 PLANTS OBSERVED IN 1996. ~70 PLANTS OBSERVED IN 1997. 1946 CONSTANCE COLLECTION FROM "4.5 MI N OF MOUTH OF EAGLE CREEK" AND 1980 TAYLOR COLLECTION ARE ALSO ATTRIBUTED TO THIS OCCURRENCE.	ACTIVE SCOUR ZONE OF TRINITY RIVER, ROAD BUILT THROUGH CENTER.	Shasta-Trinity NF, private	3000
10	4 MILES NORTH OF CECILVILLE ON ROAD TO SAWYERS BAR.	Siskiyou	Cecilville (4112322)	CNDDB, Oct 2021 (EO 10)	6-Jul-1963	ONLY SOURCE OF INFORMATION FOR THIS SITE IS A 1963 COLLECTION BY WESTON. NEEDS FIELDWORK.		Klamath NF	4000
11	CANTARA.	Siskiyou	City of Mount Shasta (4112233)	CNDDB, Oct 2021 (EO 11)	1922-06-XX	MAIN SOURCE OF INFORMATION FOR THIS SITE IS A 1922 COLLECTION BY SOARES. AN 1879 LEMMON COLLECTION FROM "ROCKY BANKS OF THE UPPER SACRAMENTO BELOW TOWN OF MOUNT SHASTA" IS ALSO ATTRIBUTED TO THIS OCCURRENCE.		California Department of Fish and Wildlife	

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12	NEAR TOAD LAKE.	Siskiyou	Mount Eddy (4112234)	CNDDB, Oct 2021 (EO 12)	12-Aug-1911	ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1911 COLLECTION BY ALEXANDER AND KELLOGG. NEEDS FIELDWORK.		Shasta-Trinity NF	6800
13	EDGEWOOD.	Siskiyou	Weed (4112244)	CNDDB, Oct 2021 (EO 13)	Jun-1889	SITE IS BASED ON TWO 1887 COLLECTIONS BY BRANDEGEE AND CURRAN AND AN 1889 COLLECTION BY BRANDEGEE. NEEDS FIELDWORK.		Unknown	
14	HIGHWAY 99, 4 MILES SOUTH OF GAZELLE.	Siskiyou	Weed (4112244)	CNDDB, Oct 2021 (EO 14)	26-Jun-1955	ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1955 COLLECTION BY BAKER. NEEDS FIELDWORK.		Unknown	3000
14	Shasta Valley between Gazelle and Edgewood	Siskiyou	Weed (4112244)	CCH2, Oct 2021 (CASBOT-BC106043)	22-Jun-1922			Unknown	

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15	ETNA MILLS.	Siskiyou	Etna (4112248)	CNDDB, Oct 2021 (EO 15)	16-May-1954	MAIN SOURCES OF INFORMATION FOR THIS OCCURRENCE ARE AN UNDATED CHANDLER COLLECTION AND A 1937 ROWNTREE COLLECTION. A 1954 BARNEBY COLLECTION FROM "SCOTT RIVER, 10.5 MILES BELOW FORT JONES" IS ALSO ATTRIBUTED TO THIS OCCURRENCE.		Unknown	3000
16	NEAR FORT JONES.	Siskiyou	Fort Jones (4112257)	CNDDB, Oct 2021 (EO 16)	6-Jul-1982	SITE IS BASED ON A 1937 ROWNTREE COLLECTION AND A 1982 RAICHE COLLECTION. NEEDS FIELDWORK.		Unknown	2700
17	1-3 MILES SOUTH OF GREENVIEW, WEST SIDE OF SCOTT VALLEY.	Siskiyou	Greenview (4112258)	CNDDB, Oct 2021 (EO 17)	19-Jul-1937	ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1937 COLLECTION BY STEBBINS AND JENKINS. NEEDS FIELDWORK.		Unknown	2800
17	6 mi from either Fort Jones or Etna (Scott Valley). [maps to 1-3 mi S of Greenview]	Siskiyou	Greenview (4112258)	CCH2, Oct 2021 (JEPS52290)	26-Jun-1966			Unknown	2800

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18	NORTH FORK TRINITY RIVER, 0.3 MILE NORTH OF GRIZZLY CREEK.	Trinity	Cecil Lake (4112312)	CNDDB, Oct 2021 (EO 18)	19-Jun-1973	ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1973 COLLECTION BY CARTER. NEEDS FIELDWORK.		Shasta-Trinity NF. Trinity Alps Wilderness Area.	3500
19	2 MILES WEST OF HOBO GULCH, NEAR NORTH FORK TRINITY RIVER.	Trinity	Thurston Peaks (4012382)	CNDDB, Oct 2021 (EO 19)	26-Jul-1971	ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1971 COLLECTION BY CARTER. NEEDS FIELDWORK.		Shasta-Trinity NF. Trinity Alps Wilderness Area.	5550
20	GREENVIEW, AT DEAD END OF MAIN STREET, WEST OF HIGHWAY 3 BRIDGE OVER KIDDER CREEK.	Siskiyou	Greenview (4112258)	CNDDB, Oct 2021 (EO 20)	12-Jun-2008	SITE IS BASED ON COLLECTIONS FROM 1962, 1965, AND 2008. ONLY 2-3 DOZEN PLANTS OBSERVED IN 1965. "COMMON" IN 2008. A 1935 WHEELER COLLECTION FROM GREENVIEW IS ALSO ATTRIBUTED TO THIS OCCURRENCE.		Unknown	2900
21	HILLSLOPES FLANKING WILLOW CREEK MOUTH, SOUTH SIDE OF SHASTA VALLEY, ABOUT 5 AIR MILES NNW OF STEWART SPRINGS.	Siskiyou	China Mtn. (4112245)	CNDDB, Oct 2021 (EO 21)	12-Jun-1997	50 PLANTS OBSERVED IN 1997. BLM PARCEL ADJACENT UNDER CONSIDERATION FOR DISPOSAL FROM PUBLIC DOMAIN (LAND EXCHANGE).		Private	3300

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21	Hillslopes at base of Scott Mountains at mouth of Willow Creek, Shasta Valley: ac. 4 miles west of Gazelle (China Mountain 7.5'Q)	Siskiyou	China Mtn. (4112245)	CCH2, Oct 2021 (JEPS101368)	12-Jun-1997			Private	3100
22	SOUTHERN SLOPE OF WILLOW CREEK CANYON, ABOUT 4 AIR MILES NNW OF STEWART SPRINGS.	Siskiyou	China Mtn. (4112245)	CNDDB, Oct 2021 (EO 22)	14-Jun-2001	10 PLANTS OBSERVED IN EASTERN POLYGON IN 1996. 8 PLANTS OBSERVED IN WESTERN POLYGON IN 2001.	NO EVIDENCE OF RECENT GRAZING IMPACTS (1996).	BLM, private	4000
23	NORTH-FACING SLOPE FLANKING SHASTA VALLEY, 3 MILES DUE SOUTH OF GAZELLE, SHASTA NATIONAL FOREST.	Siskiyou	China Mtn. (4112245)	CNDDB, Oct 2021 (EO 23)	16-Jun-1998	275 PLANTS SEEN IN NORTHERN POLYGON AND 25 PLANTS SEEN IN SOUTHERN POLYGON IN 1998.		Private	3500
23	About 3 miles south of the town of Gazelle	Siskiyou	China Mtn. (4112245)	CCH2, Oct 2021 (BLMRD102 and 103).	16-Jun-1998			Private	3600

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24	ALONG YREKA DITCH, 3.9 AIR MILES NORTH OF STEWART SPRING, ABOUT 5 MILES SOUTH OF GAZELLE.	Siskiyou	China Mtn. (4112245)	CNDDB, Oct 2021 (EO 24)	18-Jun-1996	50 PLANTS OBSERVED IN 1996. THIS REGION HAS REMARKABLE NATIVE BUNCHGRASS DIVERSITY/COVER/EXTENT.	NO EVIDENCE OF RECENT GRAZING IMPACTS.	Private	3200
25	RIDGE SOUTH OF UPPER MOUNTAIN HOUSE CREEK, ABOUT 2.2 AIR MILES NNE OF CRATER LAKE, SCOTT MOUNTAINS.	Siskiyou	China Mtn. (4112245)	CNDDB, Oct 2021 (EO 25)	27-Jun-2006	SEEN IN 2002 DURING NEARBY SURVEY FOR BALSAMORHIZA HOOKERI VAR. LANATA. ~800 PLANTS SEEN IN 2006. 1996 TAYLOR OBSERVATION FROM "ON WATERSHED DIVIDE BETWEEN CRATER CRK DRAINAGE AND MOUNTAIN HOUSE CRK DRAINAGE" ATTRIBUTED HERE.	SOME PLANTS MAY HAVE BEEN ELIMINATED DURING ORIGINAL ROAD CONSTRUCTION .	Klamath NF	5600

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25	Klamath Ranges. Northeast end of Scott Mountains, 2.7 air-mi NNW of China Mountain; rocky ridgeline between Mountain House Creek and Crater Creek, just east of Road 41N03. TRS: T41N, R7W, ctr of se¼ of Sec. 12. China Mtn 7.5' quad.	Siskiyou	China Mtn. (4112245)	CCH2, Oct 2021 (CHSC121646)	3-Jul-2018	Open gravelly (pale greenstone?) SW-facing slope at old mine site, with scattered Jeffrey pine, Ceanothus arcuatus, mountain mahogany, rock outcrops, small bunchgrasses (probably Elymus elymoides). At bottom of mined slope, in full sun in and along old rocky road, with Chanactis suffrutescens, Minuartia nuttallii var. gregaria, M. Douglasii, Polygonum spergulariiforme and Erigeron bloomeri var bloomeri. Fls dull white to creamy yellow. One-third of one plant and 3 branches from another many-branched plant.		Klamath NF	5680
25	Klamath National Forest. South of the Gazelle-Callahan summit.	Siskiyou	China Mtn. (4112245)	CCH2, Oct 2021 (HSC-101495)	11-Jul-2010			Klamath NF	5680
25	County Rd, Gazelle, CA 96034, USA	Siskiyou	China Mtn. (4112245)	Calflora 2021 (mu5393)	4-Jul-2020	1+		Klamath NF	
25	County Rd, Gazelle, CA 96034, USA	Siskiyou	China Mtn. (4112245)	Calflora 2021 (mu5394)	4-Jul-2020	1+		Klamath NF	
25	County Rd, Gazelle, CA 96034, USA	Siskiyou	China Mtn. (4112245)	Calflora 2021 (mu5392)	4-Jul-2020	1+		Klamath NF	

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26	TRINITY RIVER NEAR TRINITY CENTER.	Trinity	Trinity Center (4012286)	CNDDB, Oct 2021 (EO 26)	27-Aug-1936	ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1936 COLLECTION BY HOWELL. NEEDS FIELDWORK.	POSSIBLY EXTIRPATED BY INUNDATION FROM CREATION OF LAKE.	Unknown	
26	E. of Scott Ranch	Trinity	Trinity Center (4012286)	CCH2, Oct 2021 (CAS:BOT :359113)	27-Aug-1936			Unknown	
27	ON BRAMLET ROAD ABOUT 0.5 MILE EAST OF THE INTERSECTION WITH USFS ROAD 29N58, 0.8 AIR MILE WEST OF SEVEN UP CEDARS.	Trinity	Smoky Creek (4012332)	CNDDB, Oct 2021 (EO 27)	21-Jun-2011	300 PLANTS OBSERVED IN 2003. 115 PLANTS OBSERVED IN 2011. A 1997 OSWALD COLLECTION FROM "FOREST ROUTE 29 [BRAMLET RD] 4.9 MI S OF HWY 36" IS ALSO ATTRIBUTED TO THIS OCCURRENCE. PLANTS NOTED AS "LOCALLY COMMON" IN 1997.	DISTURBED BY ROAD.	Shasta-Trinity NF	4200
27	Forest Route 29 (Trinity National Forest) 4.9 mi south of Hwy. 36. T29N R12W S15	Trinity	Smoky Creek (4012332)	CCH2, Oct 2021 (CHSC068 991)	17-Jul-1997	Mixed coniferous forest, serpentine substrate. Locally common in loose scree on a roadcut through serpentine.		Shasta-Trinity NF	4100
27	Along Bramlet Rd. (Road 7) 0.5 mi. from jct. with road 29N59	Trinity	Smoky Creek (4012332)	CCH2, Oct 2021 (HSC-96633)	16-Jun-2003	Serpentine.		Shasta-Trinity NF	

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28	ALONG BRAMLET ROAD (FS ROAD 29) ABOUT 0.5 MILE SOUTH OF SMOKY CREEK, 4.1 AIR MILES ENE OF SILVER FLAT.	Trinity	Smoky Creek (4012332)	CNDDB, Oct 2021 (EO 28)	28-Jun-1990	UNKNOWN NUMBER OF PLANTS OBSERVED IN 1990.		Shasta-Trinity NF	3900
28		Trinity	Smoky Creek (4012332)	NRIS, Mar 2020, 0514_CHSU_51_0014	27 Jun 2017 - survey done but plants not found	Plants looked for but not found (occurrence remains historic). In NRIS system, this was mistakenly identified as EO14 but mapped at EO28.		Shasta-Trinity NF	
29	HAYFORK DIVIDE, LOGGING ROAD ABOUT 1 MILE NORTH OF HAYFORK SUMMIT ON HIGHWAY 3.	Trinity	Hayfork Summit (4012351)	CNDDB, Oct 2021 (EO 29)	27-Jun-2002	SITE IS BASED ON A 2002 COLLECTION BY TAYLOR. NEEDS MAP DETAIL.		Private - Sierra Pacific Industries	4000

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30	ABOUT 0.6 MILE SOUTH OF COFFEE CREEK ROAD, BETWEEN COFFEE CREEK AND HIGHWAY 3.	Trinity	Carrville (4112216)	CNDDB, Oct 2021 (EO 30)	none	OCCURRENCE ORIGINALLY REPORTED BY JULIE NELSON, OBSERVATION DATE UNKNOWN. AREA SEARCHED IN 1997 BUT NO PLANTS FOUND; COFFEE CREEK MAY NOW FLOW THROUGH AREA PREVIOUSLY INHABITED BY CHAENACTIS SUFFRUTESCENS.	COFFEE CREEK MAY NOW FLOW THROUGH AREA PREVIOUSLY INHABITED BY OCCURRENCE.	Private	2400
31	ALONG EAST SIDE ROAD (FS ROAD 106) APPROXIMATELY 2 MILES SOUTH OF INTERSECTION WITH HWY 3 AT CARRVILLE.	Trinity	Carrville (4112216)	CNDDB, Oct 2021 (EO 31)	4-Jun-2014	200+ PLANTS SEEN IN MIDDLE POLYGON IN 2002. 25 PLANTS SEEN IN NORTHERN POLYGON IN 2003. 500+ PLANTS SEEN IN SOUTHERN POLYGON IN 2014.	THREATENED BY ROAD MAINTENANCE.	Shasta-Trinity NF	2450
32	UPPER SACRAMENTO RIVER AT LAKE SISKIYOU.	Siskiyou	City of Mount Shasta (4112233)	CNDDB, Oct 2021 (EO 32)	11-Aug-2004	POPULATION SIZE OF AT LEAST 5 ACRES AND 200 PLANTS ESTIMATED IN 2004.	SUBJECT TO PERIODIC FLOODING AND DISTURBANCE FROM RECREATIONAL USE AT ADJACENT LAKE.	Shasta-Trinity NF, unknown	3200

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32	None provided.	Siskiyou	City of Mount Shasta (4112233)	Calflora 2021 (io23876)	14-Jan-2020			Shasta-Trinity NF	
33	MOUNT EDDY.	Siskiyou/ Trinity	Mount Eddy (4112234)	CNDDB, Oct 2021 (EO 33)	16-Jun-1897	ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS AN 1897 COLLECTION BY BROWN. NEEDS FIELDWORK.		Shasta-Trinity NF	
34	ALONG PARKS CREEK IN SHASTA VALLEY; APPROXIMATELY 2.6 AIR MILES NORTHWEST OF EDGEWOOD.	Siskiyou	Weed (4112244)	CNDDB, Oct 2021 (EO 34)	7-Jun-2007	30 PLANTS OBSERVED IN 2007.	EROSION, FLOODING, GRAZING, AND GROUND DISTURBANCE BY HEAVY EQUIPMENT.	Private	2800
35	ALONG PARKS CREEK, ABOUT 2 MILES WEST OF THE STATE HIGHWAY.	Siskiyou	Weed (4112244)	CNDDB, Oct 2021 (EO 35)	19-Jul-1937	ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1937 COLLECTION BY STEBBINS. NEEDS FIELDWORK.		Unknown	3400
36	NORTH END OF USFS ROAD 42N19B, APPROXIMATELY 3 AIR MILES NNW OF STEWART SPRINGS.	Siskiyou	China Mtn. (4112245)	CNDDB, Oct 2021 (EO 36)	21-Aug-2001	ONE UNHEALTHY PLANT OBSERVED IN 2001.		Private	6000

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37	MOFFETT CREEK ROAD 2.8 MILES SOUTH FROM JUNCTION WITH HIGHWAY 3, OPPOSITE CONFLUENCE CROOKED CREEK.	Siskiyou	Duzel Rock (4112256)	CNDDB, Oct 2021 (EO 37)	18-Jul-1999	SITE IS BASED ON A 1999 COLLECTION BY TAYLOR. Steep roadcut on serpentine, Pinus jeffreyi woodland upslope.		Unknown	3180
38	14 MILES EAST OF MONTAGUE.	Siskiyou	Solomons Temple (4112263)	CNDDB, Oct 2021 (EO 38)	26-Jun-1941	MAIN SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1941 COLLECTION BY MAXWELL. A 1903 HALL COLLECTION FROM "UPPER PART OF SHASTA VALLEY, 3800 FT" IS ALSO ATTRIBUTED TO THIS OCCURRENCE. NEEDS FIELDWORK.		Unknown	3000
38	Walbridge Gulch. Dwinnell Reservoir Quad.	Siskiyou	Solomons Temple (4112263)	CCH2, Oct 2021 (PUA1137 2)	26-Jun-1941	Clay soil.		Unknown	3000
39	Cecilville [NNE of]	Siskiyou	Grasshopper Ridge (4112321)	CCH2, Oct 2021 (SBBG157 534)	10-Jun-2018	serpentine talus		Klamath NF	
39	None provided.	Siskiyou	Grasshopper Ridge (4112321)	Calflora 2021 (po90959)	20-Jun-2018	11 to 50		Klamath NF	3566
39	None provided.	Siskiyou	Grasshopper Ridge (4112321)	Calflora 2021 (po90960)	20-Jun-2018	51 - 100		Klamath NF	3569

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39	None provided.	Siskiyou	Grasshopper Ridge (4112321)	Calflora 2021 (po90961)	20-Jun-2018	51 - 100		Klamath NF	3520
39	None provided.	Siskiyou	Grasshopper Ridge (4112321)	Calflora 2021 (po90962)	20-Jun-2018	51 - 100		Klamath NF	3799
39	None provided.	Siskiyou	Grasshopper Ridge (4112321)	Calflora 2021 (po90963)	20-Jun-2018	51 - 100		Klamath NF	3845
39	None provided.	Siskiyou	Grasshopper Ridge (4112321)	Calflora 2021 (po90964)	20-Jun-2018	51 - 100		Klamath NF	3842
39	None provided.	Siskiyou	Grasshopper Ridge (4112321)	Calflora 2021 (po90965)	20-Jun-2018	51 - 100		Klamath NF	3921
39	None provided.	Siskiyou	Grasshopper Ridge (4112321)	Calflora 2021 (po90966)	20-Jun-2018	51 - 100		Klamath NF	3835
39	None provided.	Siskiyou	Grasshopper Ridge (4112321)	Calflora 2021 (po90967)	20-Jun-2018	51 - 100		Klamath NF	3999
40	Along the Pacific Crest Trail. Serpentine hillside.	Siskiyou	Mount Eddy (4112234)	Calflora 2021 (gp18984)	21-Jul-2019	51 - 100		Shasta-Trinity NF	

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40	None provided. Maps along the Pacific Crest Trail.	Siskiyou	Mount Eddy (4112234)	Calflora 2021 (mg120213). Coordinates provided by CNDDB (Lazar 2020 pers. comm.)	17-Jul-2020			Shasta-Trinity NF	
41	Maps to southern side of Bully Choop Mountain summit.	Shasta	Bully Choop Mtn. (4012257)	Calflora 2021 (po196024-po196030)	26-Sep-2021	About 500 plants mapped at seven places within 0.25 mile. Peridotite-serpentinite.		BLM	
41	North Coast Ranges. Bully Choop Mountain, near the summit of the mountains in serpentine talus.	Shasta		CCH2, Oct 2021 (UC2087937)	16-Jun-1993	North facing slope with sparse cover of Holodiscus microphyllus, Chrysothamnus and Quercus vaccinifolia; vegetative this date.		BLM	
42	Picket Peak	Trinity	Forest Glen (4012333)	CCH2, Oct 2021 (STNF)	13-Sep-1995			Shasta-Trinity NF	5807
43	Stewart Springs. China Mt Quad.	Siskiyou	Weed (4112244)	CCH2, Oct 2021 (PUA144555)	29-Jul-1978	0-10 plants. Population Barely Existing. On gravel colluvial soil. Valley Floor; Slope Position: Lower Third; Vertical Slope Shape: Smooth; Horizontal Slope Shape: Smooth.	Site threatened by grazing.	Unknown. Just outside the border of Shasta-Trinity NF.	3819

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44	Weaverville Ranger District. About 8.5 (road) miles north of Coffee Creek Forest Service facility. Along country road 137 (both sides of road) in old river deposits. T39N R07W S34 NE1/4 of SW USGS Quadrangle: Tangle Blue. [Maps along Bear Lake Road]	Trinity	Tangle Blue Lake (4112226)	CCH2, Oct 2021 (CHSC114603)	14-Jun-1996	In old river deposits.		Shasta-Trinity NF. Trinity Alps Wilderness Area.	3000
45	Rail Crk. End of G-O Rd. Chimney rock area; Klamath National Forest.	Siskiyou	Chimney Rock (4112356)	CCH2, Oct 2021 (KNFY)	17-Jul-1979			Klamath NF	
	Local landmark: Scott Mountain. China Mt Quad.	Siskiyou		CCH2, Oct 2021 (PUA6419)	6-Jul-1948	Roadside.			
	Mt. Shasta	Siskiyou		CCH2, Oct 2021 (CASBOT-BC106037)					
	Mt. Shasta	Siskiyou		CCH2, Oct 2021 (JEPS8879)					

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
	Mount Shasta and vicinity	Siskiyou		CCH2, Oct 2021 (POM 31491)	13 Jul 1892				
	Mt. Shasta			CCH2, Oct 2021 (UC90185)	1 Jul 1892				
	Scott Valley	Siskiyou		CCH2, Oct 2021 (JEPS8879, PUA13053)	4-Jul-1907	Valley floor.			2800
	McCloud; Klamath National Forest	Siskiyou		CCH2, Oct 2021 (KNFY)					
	Coffee Creek Road area.	Trinity		CCH2, Oct 2021 (SFSU-VP-001716)	5-Jun-1975				
	No location	Trinity		CCH2, Oct 2021 (SSRD)					
	No location			CCH2, Oct 2021 (SSRD)					