Species: *Silene nelsonii* M. R. Mesler, M. S. Mayer, & S. K. Carothers, Nelson's stringflower

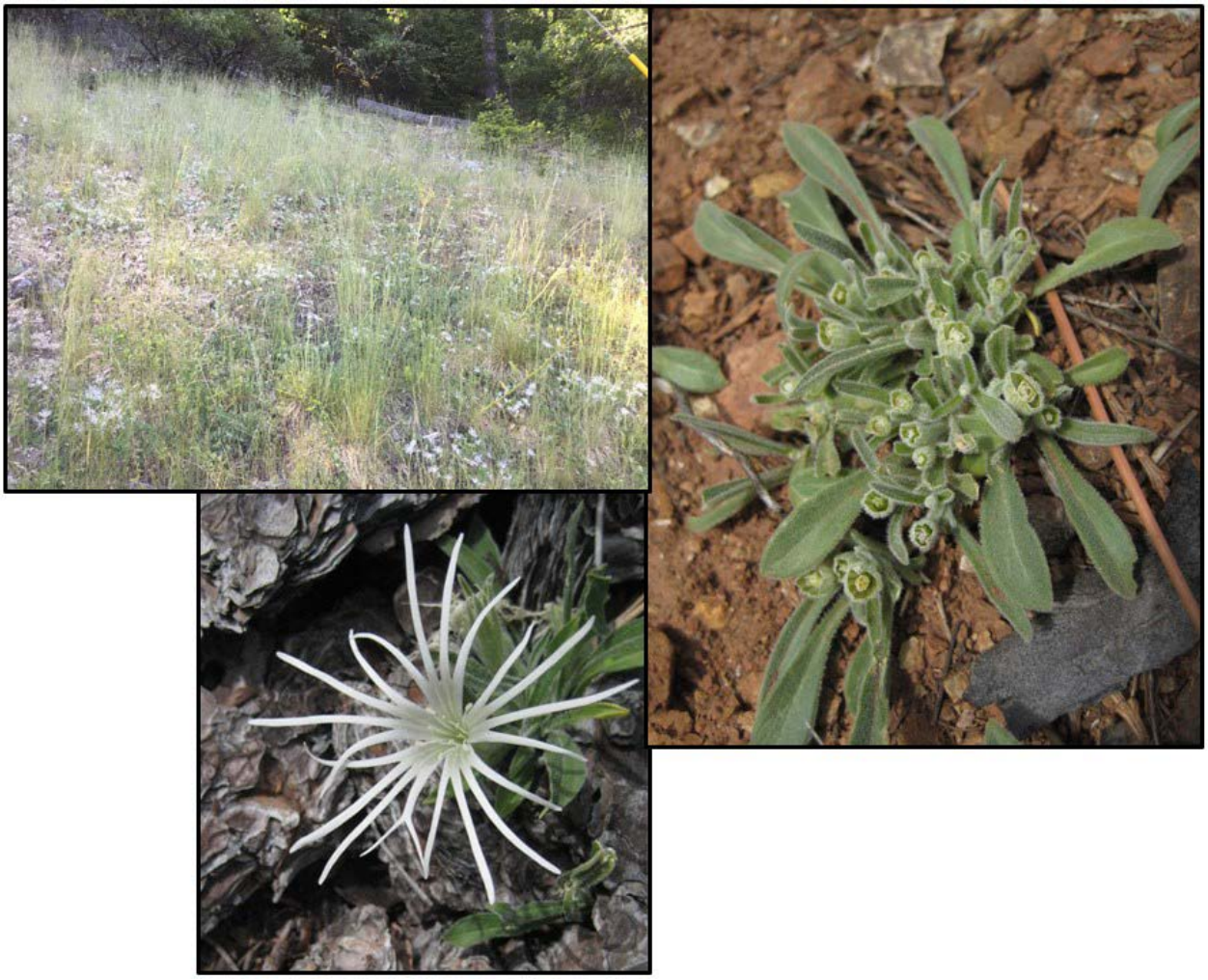


Photo Source: CalPhotos 2021

Photo Credits: Top left: Sierra Pacific Industries (with permission); all others: Julie Kierstead.

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 Nelson's stringflower		
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 nation or state/province.
California Rare Plant Rank[b]	4.3	4: Plants of limited distribution – a watch list. 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 2021 and has undergone no further changes.
California State Listing[c]	Not listed	
USDA Forest Service[d]	Not listed	
USDI FWS[e]	Not listed	
USDI BLM[f]	Not listed	
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 2021, 2021a]
[b] California Native Plant Society [CNPS 2021]
[c] California Department of Fish and Wildlife [CDFW 2021]
[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 2021]
[f] US Department of Interior Bureau of Land Management [BLM 2020]
[g] Oregon Biodiversity Information Center [ORBIC 2019]
[h] Oregon Department of Agriculture [ODA 2018]
[i] Nevada Natural Heritage Program [NNHP 2021]
[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]

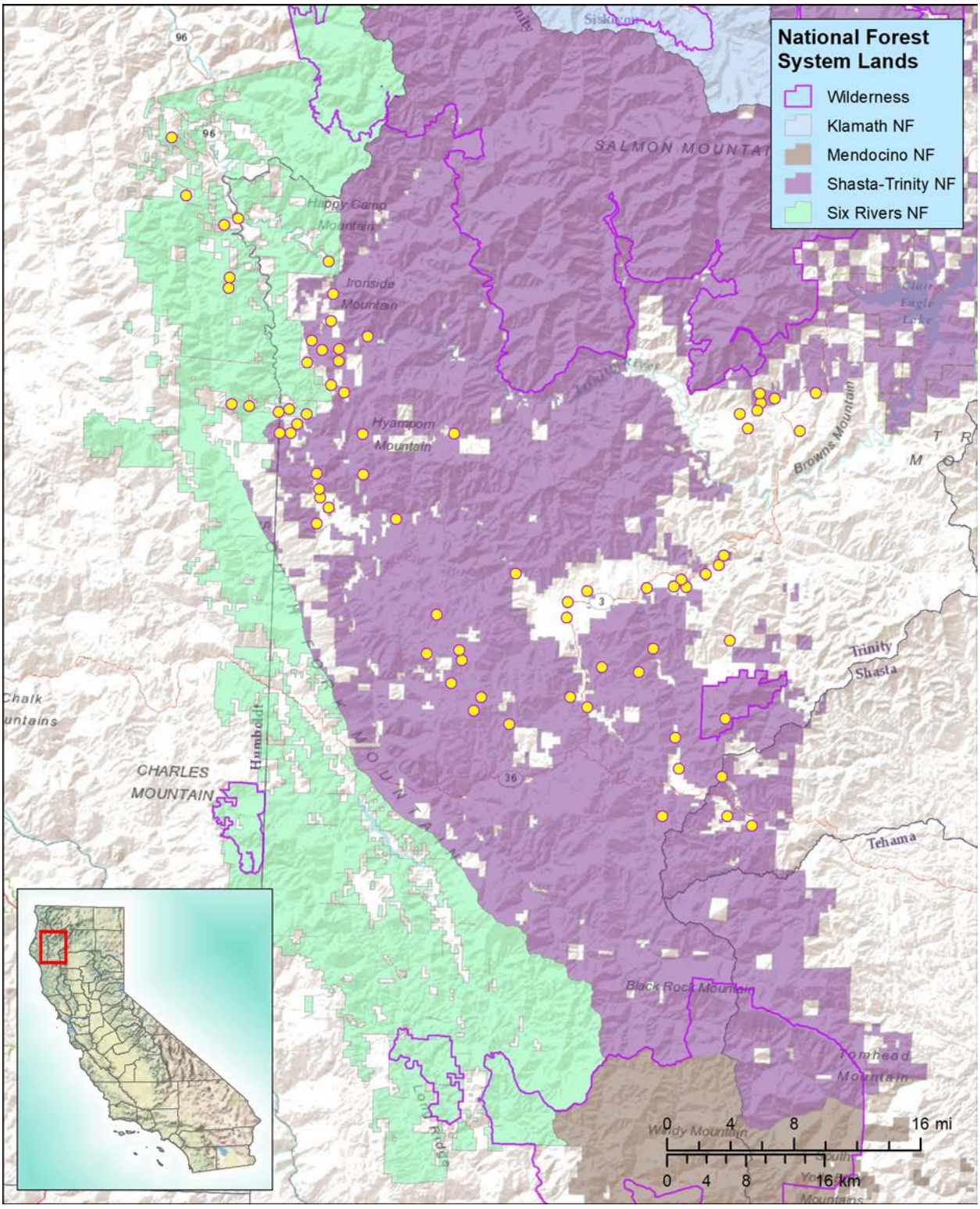
Table 2 summarizes the distribution and frequency of this species or subspecies/variety within National Forest System Lands in California. Table 4 in Appendix 1 lists all known occurrences of this species or subspecies/variety within California. Individual occurrences are defined as sites

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

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 Nelson's stringflower 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
Shasta-Trinity:	1, 2, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 21, 23, 24, 27, 31, 32, 33, 34, 35, 36, 37, 43, 44, 45, 46, 49, 50, 51, 53, 60, 67	0	36	32	4	21-May-2020	36
Six Rivers:	38, 39, 40, 41, 42, 48, 54, 55, 56, 58, 59, 66	0	12	7	5	19-May-2018	12
Totals:	N/A	0	48	39	9	N/A	48



Sources: *Distribution*: Mesler et al. 2020, Green 2021 pers. comm., Mesler 2021 pers. comm., Calflora 2021, CalPhotos 2021, CCH2 2021, iNaturalist 2021. *Baselayers*: 2013 National Geographic Society, i-cubed, Esri, Garmin, NOAA, NPS, USGS.

Occurrences for Nelson's stringflower were estimated using GIS tools and methods described by Green and Sims (2018).

Endemic to California, Nelson's stringflower is known from the Klamath Ranges (KR), High North Coast Ranges (NCoRH), and Outer North Coast Ranges (NCoRO) bioregions of Humboldt, Shasta, and Trinity counties (Table 4). This analysis is mainly based on locations verified by Michael Mesler, the lead author of this species (Mesler et al. 2019, Mesler et al. 2020, Mesler 2021 pers. comm.), with a minority of additional records obtained from online sources (Calflora 2021, CalPhotos 2021, iNaturalist 2021) and recent survey forms submitted to the CNDDB (Green 2021 pers. comm.). There are approximately 12 additional unprocessed recent survey forms from private lands that were not included here because they do not expand the known species distribution. When more herbarium specimens and observations of this species are verified in the future, the number of known locations will undoubtedly increase (CNPS Rare Plant Forum 2021, Green 2021 pers. comm., Mesler 2021 pers. comm., Sims et al. 2021). However, the overall distribution will most likely remain unchanged. This species is almost entirely restricted to an area bounded by the Trinity River and South Fork of the Trinity River in Trinity County. The southeasternmost occurrences are in the southwestern tip of Shasta County, in the Cottonwood Creek watershed, which drains to the Sacramento River. Its entire distribution is restricted to an estimated area of 1600 km^2 (Sims et al. 2021).

Of the 74 records included here, 48 are found at least partly on U.S. Forest Service lands, with 36 on the Shasta-Trinity NF and 12 on the Six Rivers NF. The remaining 26 records are located on private lands or lands of unknown ownership. One record is located in Wilderness Area (# 8, in the Chanchelulla Wilderness). Seventeen of the records are historical and have not been observed for over 20 years; the other 57 records are recent. Thirteen of the locations have been visited in multiple years, with two (record #s 46 and 53) visited several times over 100 years or more. Population sizes have only been recorded at seven locations (record #s 68–74): three locations have between 100 and 500 plants, two have between 800 and 900, and two have between 60 and 70 (Green 2021 pers. comm.). Many of the other populations are large and healthy, but others are relatively small, with some having fewer than 10 plants (Mesler et al. 2019, Mesler 2021 pers. comm.).

At the bottom of Table 4, two location records are highlighted in pink and not included in this analysis. One of the records has been recently redetermined to a different species by Michael Mesler, and the other could not be georeferenced.

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

Nelson's stringflower is a perennial herb with erect, leafy stems (to 25 cm tall in shady sites) that arise from a slender rhizome; it has white flowers that bloom from April to June (Mesler et al. 2019, CNPS 2021). Plants are found in grassy openings near ephemeral drainages, along roads, or on exposed dry rocky slopes in cismontane and lower coniferous forest at 290–1,430 meters in

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

elevation (950–4,700 ft) (Mesler et al. 2019, CNPS 2021, Sims et al. 2021; note that the lower elevational range of 85 m cited in several sources was due to a specimen labeling error and has been corrected here). It is usually found in deep, well-drained soils of ultramafic or metasedimentary substrates (Mesler et al. 2019, Sims et al. 2021). Species associated with Nelson's stringflower include *Pinus jeffreyi, P. ponderosa, P. sabiniana, Pseudotsuga menziesii, Calocedrus decurrens, Quercus garryana, Q. kelloggii, Q. chrysolepis, Q. vacciniifolia, Notholithocarpus densiflorus, Arbutus menziesii, Ceanothus cuneatus, C. integerrimus, Arctostaphylos* spp., *Iris* spp., *Galium* spp., *Achillea millefolium, Bromus tectorum,* and *Festuca californica* (Mesler et al. 2019, Green 2021 pers. comm., CCH2 2021).

The genus *Silene* has approximately 850 species and is widely distributed in temperate regions (Jafari et al. 2020). Within the genus, Nelson's stringflower is a member of the *Silene hookeri* complex (Mesler et al. 2019), which is part of *Silene* section *Physolychnis* (Popp and Oxelman 2007, Petri and Oxelman 2011, Frajman et al. 2018). Mesler et al. (2019) recognized Nelson's stringflower at the species level based on morphological differences, strong support from their molecular analysis, and the fact that the species is almost fully allopatric with its relatives. Nelson's stringflower is morphologically and ecologically similar to other members of the *S. hookeri* complex that occur in northern California: *Silene bolanderi, S. salmonacea*, and *S. hookeri* (Nelson et al. 2006, Mesler et al. 2019). Nelson's stringflower can be separated from these similar species by its purely white flowers, dense pubescence at the base of the petals (often obscuring the filaments), deeply lobed petals (inner lobe 8-32 mm long and outer lobe 6-26 mm long), and absent or inconspicuous appendages (generally less than 1 mm long) (Nelson et al. 2006, Mesler et al. 2019, Sims et al. 2021).

Flowering shoots of Nelson's stringflower are often less than 10 cm tall with the flowers borne near the ground (Mesler et al. 2019). Although some *Silene* species are dioecious, most of the western North American species have bisexual flowers, with the stamens developing before the pistil (Kruckeberg 1961). The stamens are exserted from the corolla in two successive whorls of five (male phase), with the stigma becoming receptive later that same day or the following day (female phase) (Kruckeberg 1961, Mesler et al. 2019). The pollinators of Nelson's stringflower have not yet been recorded, but, as the flowers are open during the day and produce nectar (Mesler et al. 2019), they may be pollinated by bees, flies, or butterflies, as is the case with many other *Silene* species, or they could be self-pollinating (Reynolds et al. 2009, Jafari 2020, CPC 2021). The fruit of Nelson's stringflower is a capsule oriented close to the ground that dehisces by an apical pore, releasing the small seeds at the base of the parent plant (Mesler et al. 2019). The seeds are unwinged and with a strongly papillate surface (Mesler et al. 2019).

In greenhouse experiments, the seed germinability of western North American *Silene* species was found to be low, and plants grown from seed usually flowered in the first year (Kruckeberg 1961). Nelson's stringflower prefers growing in openings, whether human-made or natural (CNPS Rare Plant Forum 2021, Green 2021 pers. comm.). Like other species of the *Silene hookeri* complex, it may require a certain amount of disturbance to recruit seedlings and to get the right amount of light (Kierstead 2021 pers. comm.). The disturbance allows new seedlings to

grow without competition from grasses and other herbs (CNPS Rare Plant Forum 2021, Kierstead 2021 pers. comm., Sims et al. 2021). This species has been observed re-growing four years postfire, which indicates it may be able to regenerate from roots and rhizomes after some types of fire (Green 2021 pers. comm.).

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

This species is mainly found on ultramafic or metasedimentary soils in the Trinity River watershed. Many of the populations occur on relatively remote public lands. Five recent survey forms have site quality rankings; all five have site rankings of Good. Only five populations have been censused. Therefore, the long-term trends for most populations are unknown. However, two of the populations have been visited numerous times over the past 100 to 140 years and appear to be stable. Threats recorded for Nelson's stringflower include road maintenance and expansion, trampling by grazing cattle, severe fires that kill taproots, the creation of slash piles (which cover plants and may be burned), intense site preparation as part of industrial forestry, and poorly-timed herbicide use (Mesler et al. 2019, CNPS Rare Plant Forum 2021, Sims et al. 2021). Adverse effects on this species due to climate change are difficult to predict but would most likely involve responses to changes in temperature, rainfall, and fire patterns, which could affect seed germination and plant longevity and have adverse effects on pollinator services (Scaven and Rafferty 2013, Gremer et al. 2020). Adult plants may have the ability to survive light burns, although the narrow rhizomes would most likely be damaged by hotter burns. Firefighting activities that scrape (bulldoze) the soil would also kill adult plants. Observers have noted that the species benefits (at least over the short term) from having the canopy removed and moderate soil disturbance (CNPS Rare Plant Forum 2021, Sims et al. 2021), and this process may allow for seedling establishment in a high-light, early-seral habitat. This suggests that Nelson's string flower may have benefited historically from a natural fire regime that was disrupted in the past century. What is lacking for this species is an understanding of how long the plants persist in forested habitat, once the early-seral stage is past. Seed collection of this species for *ex situ* conservaton has not yet been carried out (CPC 2021).

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

Taxonomy[4]

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

Table 3. Name status of Nelson's stringflower	
Entity	**Name Status**
CNDDB and CNPS	*Silene nelsonii* M. R. Mesler, M. S. Mayer, & S. K. Carothers
Jepson eFlora	Not yet treated
Jepson Manual (1993)	Not included
Flora of North America	Not included
USDA NRCS[a] PLANTS	Not yet included
[a] Natural Resources Conservation Service [NRCS 2021]	

Synonymy: There are no synonyms listed for this species (Tropicos 2021). Populations now assigned to this species were previously placed in *S. bolanderi* A. Gray or *S. hookeri* Nutt. subsp. *bolanderi* (A. Gray) Abrams (Mesler et al. 2019).

Jepson eFlora link (JEPS 2021): As it is a recently described taxon, this species has not yet been included in the Jepson eFlora (Mesler et al. 2020; JEPS 2021). The information in this morphological description is taken from Mesler et al. (2019):

Habit: Perennial herb 2.5–25 cm tall; flowering shoots arising from rhizomes that radiate from a deep taproot. Stem: decumbent to erect, sparsely pubescent to densely canescent, hairs non-glandular. Leaf: green to gray-green, petiolate or sessile, elliptic, oblanceolate, or obovate, the largest subtending the inflorescence 2.2–8.2 cm long, 0.6–1.9 cm wide. Inflorescence: a 2–7 flowered cyme or flowers solitary. Flower: ascending to erect; calyx 11.8 – 23.5 mm long, sparsely to densely canescent, 10-nerved, lobes narrowly triangular; corolla broadly funnel-shaped, petal claw densely ciliate at base, appendages absent or present as inconspicuous white teeth, petals white, deeply 4–6 lobed, lobes linear to narrowly oblanceolate; stamens shorter than or equal to the claw; styles 3, initially shorter than the stamens, elongating and spreading with age. Fruit: ovoid to globose, stalked. Seed: 2–2.25 mm, reddish brown.

Type locality: California. Trinity Co.: 2.4 mi SW of Burnt Ranch, 0.75 mi from junction with FS 60 along FS 5N40 (*Mesler 1642*, HSC) (Mesler et al. 2019).

Key literature

CNPS Rare Plant Forum. 2021. Comments on the California Native Plant Society Rare Plant Forum made as part of the status review of *Silene nelsonii*, May-June 2021. California Native Plant Society, Sacramento.

Frajman, B., P. Schönswetter, H. Weiss-Schneeweiss, and B. Oxelman. 2018. Origin and diversification of South American polyploid *Silene* section *Physolychnis* (Caryophyllaceae) in the Andes and Patagonia. *Frontiers in Genetics* 9: article 639.

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

Jafari, F., S. Zarre, A. Gholipour, F. Eggens, R. K. Rabeler, and B. Oxelman. 2020. A new taxonomic backbone for the infrageneric classification of the species-rich genus *Silene* (Caryophyllaceae). *Taxon* 69: 337–368.

Kruckeberg, A. R. 1961. Artificial crosses of western North American silenes. *Brittonia* 13: 305–333.

Mesler, M. R., M. S. Mayer, and S. K. Carothers. 2019. *Silene nelsonii*, a new large-flowered species from the Trinity River area of northwestern California, USA, and a re-evaluation of *S. bolanderi* Gray. *Madroño* 66: 176–193.

Mesler, M. R., M. S. Mayer, and S. K. Carothers. 2020. Correction to "*Silene nelsonii*, a new large-flowered species from the Trinity River area of northwestern California, USA, and a re-evaluation of *S. bolanderi* Gray". *Madroño* 67: 114.

Nelson, T. W., J. P. Nelson, and S. E. Erwin. 2006. A new species of *Silene* in the *Silene hookeri* complex (Caryophyllaceae) from the Klamath Mountains of Shasta-Trinity National Forest, Trinity County, California. *Madroño* 53: 72–76.

Petri, A. and B. Oxelman. 2011. Phylogenetic relationships within *Silene* (Caryophyllaceae) section *Physolychnis*. *Taxon* 60: 953–968.

Popp, M. and B. Oxelman. 2007. Origin and evolution of North American polyploid *Silene* (Caryophyllaceae). *American Journal of Botany* 94: 330–349.

Reynolds, R. J., M. J. Westbrook, A. S. Rohde, J. M. Cridland, C. B. Fenster, and M. R. Dudash. 2009. Pollinator specialization and pollination syndromes of three related North American *Silene*. *Ecology* 90: 2077–2087.

Sims, A. E., E. Dean, and K. Ferguson. 2021. Rare Plant Status Review: *Silene nelsonii*. California Native Plant Society, Sacramento.

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 December 2021].

[CDFW] California Department of Fish and Wildlife, Natural Diversity Database. 2021. State and Federally Listed Endangered, Threatened, and Rare Plants of California. Last updated January 8, 2021. 10 pp. Available at https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109390 [accessed December 2021].

[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, December 2021].

____. 2021a. Special Vascular Plants, Bryophytes, and Lichens List. Quarterly publication, January 2021. 166 pp. Available at https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109383&inline [accessed December 2021].

[CNPS] California Native Plant Society, Rare Plant Program. 2021. *Inventory of Rare and Endangered Plants of California* (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed December 2021].

CNPS Rare Plant Forum. 2021. Comments on the California Native Plant Society Rare Plant Forum made as part of the status review of *Silene nelsonii*, May-June 2021. California Native Plant Society, Sacramento.

CalPhotos. 2021. CalPhotos: Plants. Regents of the University of California, Berkeley. Website http://calphotos.berkeley.edu/flora/ [accessed December 2021].

[CPC] Center for Plant Conservation. 2021. CPC National Collection Rare Plant Database. Website https://saveplants.org/national-collection/pollinator-search/ [accessed December 2021].

[CCH2] Consortium of California Herbaria Portal 2. 2021. Data provided by the participants of the Consortium of California Herbaria and the California Phenology Thematic Collections Network (CAP-TCN). Regents of the University of California, Berkeley and Cal Poly, San Luis Obispo. Website http//:www.cch2.org/portal/index.php [accessed December 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. Volume 5, 2005.

Frajman, B., P. Schönswetter, H. Weiss-Schneeweiss, and B. Oxelman. 2018. Origin and diversification of South American polyploid *Silene* section *Physolychnis* (Caryophyllaceae) in the Andes and Patagonia. *Frontiers in Genetics* 9: article 639.

Green, K. and A. E. Sims. 2018. Assessing rarity status of the newly described Shasta County endemic, *Adiantum shastense* (Pteridaceae), by employing innovative tools in geographic information systems. Rare Plant Program, California Native Plant Society. Presented in Scientific Poster session of CNPS 2018 Conservation Conference, Los Angeles, CA, 1-3 February 2018.

Gremer, J. R., A. Chiono, E. Suglia, M. Bontrager, L. Okafor, and J. Schmitt. 2020. Variation in the seasonal germination niche across an elevational gradient: the role of germination cueing in current and future climates. *American Journal of Botany* 107(2): 350–363.

Jafari, F., S. Zarre, A. Gholipour, F. Eggens, R. K. Rabeler, and B. Oxelman. 2020. A new taxonomic backbone for the infrageneric classification of the species-rich genus *Silene* (Caryophyllaceae). *Taxon* 69: 337–368.

[JEPS] Jepson Flora Project (eds.). 2021. Jepson eFlora. Website http://ucjeps.berkeley.edu/IJM.html [accessed December 2021].

Kruckeberg, A. R. 1961. Artificial crosses of western North American silenes. *Brittonia* 13: 305–333.

Mesler, M. R., M. S. Mayer, and S. K. Carothers. 2019. *Silene nelsonii*, a new large-flowered species from the Trinity River area of northwestern California, USA, and a re-evaluation of *S. bolanderi* Gray. *Madroño* 66: 176–193.

Mesler, M. R., M. S. Mayer, and S. K. Carothers. 2020. Correction to "*Silene nelsonii*, a new large-flowered species from the Trinity River area of northwestern California, USA, and a re-evaluation of *S. bolanderi* Gray". *Madroño* 67: 114.

[NRCS] U.S. Department of Agriculture, Natural Resources Conservation Service. 2021. PLANTS Database. Website http://plants.usda.gov/ [accessed December 2021].

Nelson, T. W., J. P. Nelson, and S. E. Erwin. 2006. A new species of *Silene* in the *Silene hookeri* complex (Caryophyllaceae) from the Klamath Mountains of Shasta-Trinity National Forest, Trinity County, California. *Madroño* 53: 72–76.

[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. 2021. Tracking and Watch Lists. Department of Conservation and Natural Resources. Available at: http://heritage.nv.gov/botany [accessed February 2021].

[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 February 2021].

[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].

Petri, A. and B. Oxelman. 2011. Phylogenetic relationships within *Silene* (Caryophyllaceae) section *Physolychnis*. *Taxon* 60: 953–968.

Popp, M. and B. Oxelman. 2007. Origin and evolution of North American polyploid *Silene* (Caryophyllaceae). *American Journal of Botany* 94: 330–349.

Reynolds, R. J., M. J. Westbrook, A. S. Rohde, J. M. Cridland, C. B. Fenster, and M. R. Dudash. 2009. Pollinator specialization and pollination syndromes of three related North American *Silene*. *Ecology* 90: 2077–2087.

Scaven, V. L. and N. E. Rafferty. 2013. Physiological effects of climate warming on flowering plants and insect pollinators and potential consequences for interactions. *Current Zoology* 59: 418–426.

Tropicos. 2021. Missouri Botanical Garden. Website http://www.tropicos.org [accessed December 2021].

[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. 2021. Endangered Species List. Available at: https://www.fws.gov/endangered [accessed December 2021].

Persons Contacted

Green, Kaitlyn. 2021. Data Coordinator, California Native Plant Society. Email correspondence regarding recent/unprocessed survey forms for *Silene nelsonii*. Personal communication 16 December 2021.

Kierstead, Julie. 2021. Forest Botanist, Shasta-Trinity National Forest (retired). Email correspondence regarding regeneration ecology of *Silene salmonacea.* Personal communication 26 February 2021.

Mesler, Michael, 2021. Professor Emeritus – Botany, Department of Biological Sciences, Humboldt State University. Email correspondences regarding information about status and distribution of *Silene bolanderi*, *S. nelsonii*, and *S. hookeri*. December, 2017 to December, 2021.

Author(s) and Date:

Ellen A. Dean, California Native Plant Society, Associate Rare Plant Botanist, 20 December 2021; revised 2 March 2022.

Reviewer(s) and Date:

Aaron E. Sims, California Native Plant Society, Rare Plant Program Director, 8 March 2022; Julie Ann Kierstead, USDA Forest Service Region 5, Ecosystem Planning, 25 February 2022.

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 Nelson's stringflower 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	Basin Gulch camp, at entrance	Shasta	Beegum W (4012238)	CCH2, Dec. 2021 (HSC-103758); Mesler et al. 2020	4-May-2013			Shasta-Trinity NF	2570
1	Trinity National Forest, Basin Gulch Campground	Shasta	Beegum W (4012238)	CCH2, Dec. 2021 (HSC-46986)	13-May-1978			Shasta-Trinity NF	2800
1	[Maps to Trinity National Forest, Basin Gulch Campground.}	Shasta	Beegum W (4012238)	Mesler 2020 pers. comm.	Unknown			Shasta-Trinity NF	
2	FS 29N28, south of Hwy 36 [Maps to south of Highway 36, String Bean Creek watershed.]	Trinity	Pony Buck Peak (4012331)	Mesler 2020 pers. comm.	2018			Shasta-Trinity NF	4100
2	Unnamed Road, Platina, CA 96076, USA	Trinity	Pony Buck Peak (4012331)	Calflora, Dec. 2021 (mu5772)	4-Jun-2019	1+ plant.		Shasta-Trinity NF	4115

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.)**
2	Shasta Trinity National Forest, south of Highway 36, String Bean Creek watershed	Shasta	Pony Buck Peak (4012331)	CalPhotos, Dec. 2021 (ID: 0000 0000 0719 2410, 2409, 2408, 2407, 2406, 2405)	4-Jun-2019			Shasta-Trinity NF	
3	Basin Gulch Campground [T/R data actually place this in Basin Gulch, not the campground]	Trinity	Beegum W (4012238)	CCH2, Dec. 2021 (HSC-91342)	12-May-1984	Serpentine, 5-15% N facing slope, foothill woodland with Quercus spp.		Unknown	3000
4	Near Deerlick Springs along FS rd 30N01, about 2.0 miles north of Hwy 36	Trinity	Chanchelulla Peak (4012248)	CCH2, Dec. 2021 (HSC-103761)	26-May-2013			Shasta-Trinity NF	4380
4	[Maps to near Deerlick Springs along FS rd 30N01, about 2.0 miles north of Hwy 36.]	Trinity	Chanchelulla Peak (4012248)	Mesler 2020 pers. comm.	Unknown			Shasta-Trinity NF	
5	[Maps to Gemmill Gulch Picnic Area along Wildwood Road.]	Trinity	Wildwood (4012343)	Mesler 2020 pers. comm.	2010			Unknown	3290
6	4.6 miles southwest of Peanut on spur road from 31N32 about 0.5 east of NF 7	Trinity	Naufus Creek (4012343)	CCH2, Dec. 2021 (HSC-103730)	8-Jun-2011	Open flat area. Associated species: Ceanothus cordulatus, Quercus garryana, Pinus ponderosa		Shasta-Trinity NF	3850

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.)**
6	[Maps to Philpot Creek watershed east of Mud Spring, ca. 5 miles SW of Peanut.]	Trinity	Naufus Creek (4012343)	Mesler 2020 pers. comm.				Shasta-Trinity NF	
7	Shasta-Trinity National Forest, along FS Rd. 1N10, 1 mi. from junction with FS Rd. 2N07	Trinity	Naufus Creek (4012343)	CCH2, Dec. 2021 (HSC-68813)	18-Jun-1980	Jeffrey pine woodland serpentine		Shasta-Trinity NF	4500
8	[Maps to Hayfork Ranger District, along forest road 10W23, on ridge above Chanehelulla drainage.]	Trinity	Chanchelulla Peak (4012248)	CCH2, Dec. 2021 (HSC-85907)	12-May-1984	E facing slope. With Quercus and Ceanothus cuneatus		Shasta-Trinity NF (Chanchelulla Wilderness)	3212
9	South of Indian Valley along NF 7	Trinity	Naufus Creek (4012343)	CCH2, Dec. 2021 (HSC-103731)	8-Jun-2011	Grassy opening. Associated species: Pseudotsuga menziesii, Pinus ponderosa, Calocedrus decurrens, Ceanothus cordulatus		Shasta-Trinity NF	4000
9	[Maps to upslope of Naufus Creek (4012343) drainage, upslope of Forest Road 7, 3.5 air mi SSE of Indian Valley.]	Trinity	Naufus Creek (4012343)	Mesler 2020 pers. comm.	Unknown			Shasta-Trinity NF	
10	Philpot Campground, 1.2 mi. W of Peanut	Trinity	Dubakella Mtn. (4012342)	CCH2, Dec. 2021 (HSC-42299)	May-77	Mixed conifer forest		Shasta-Trinity NF	2500

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.)**
10	Philpot Campground, 1 mi. from Hwy. 3 on Trinity Pines Rd.	Trinity	Dubakella Mtn. (4012342)	CCH2, Dec. 2021 (HSC-47570)	13-May-1978	Ponderosa pine forest		Shasta-Trinity NF	2500
10	N of Philpot BLM Campground	Trinity	Dubakella Mtn. (4012342)	CCH2, Dec. 2021 (HSC-62966)	13-May-1979	Jeffrey pine forest		Shasta-Trinity NF	2600
10	Philpot Creek campground	Trinity	Dubakella Mtn. (4012342)	CCH2, Dec. 2021 (HSC-66144)	3-May-1980	Jeffrey pine-Black oak woodland		Shasta-Trinity NF	2650
10	Philpot Campground	Trinity	Dubakella Mtn. (4012342)	CCH2, Dec. 2021 (HSC-73460)	Unknown	Yellow pine forest		Shasta-Trinity NF	2650
10	[Maps to just N of Philpot Campground].	Trinity	Dubakella Mtn. (4012342)	Mesler 2020 pers. comm.	Unknown			Shasta-Trinity NF	2700
10	[Maps to upslope and just SE of Philpot Campground].	Trinity	Dubakella Mtn. (4012342)	Mesler 2020 pers. comm.	Unknown			Shasta-Trinity NF	2600
10	[Maps to upslope and just ESE of Philpot Campground].	Trinity	Dubakella Mtn. (4012342)	Mesler 2020 pers. comm.	Unknown			Shasta-Trinity NF	
10	Philpot Camp near Peanut. Along road (north side) west of camp entrance.	Trinity	Dubakella Mtn. (4012342)	CCH2, Dec. 2021 (HSC-103759)	26-May-2013	Open conifer forest understory on serpentine. Associated species: Pseudotsuga menziesii, Pinus jeffreyi, Quercus garryana		Shasta-Trinity 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.)**
10	Philpot Camp near Peanut. Near camp entrance	Trinity	Dubakella Mtn. (4012342)	CCH2, Dec. 2021 (HSC-103760)	26-May-2013	Open understoryof conifer forest. Associated species: Pseudotsuga menziesii		Shasta-Trinity NF	2600
11	Near Indian Valley, 13.0 miles from Hwy 36 along NF 14. [Maps to above Plummer Creek Drainage, ca. 3 miles S of Indian Valley] Within 0.25 mile of Record 11.	Trinity	Naufus Creek (4012343)	CCH2, Dec. 2021 (HSC-103765)	9-Jun-2013	Open grassy area. Associated species: Festuca, Pinus ponderosa, Quercus garryana		Shasta-Trinity NF	3990
11	[Maps to upslope of Forest Road 14, above Plummer Creek Drainage, ca. 3 miles S of Indian Valley.]	Trinity	Naufus Creek (4012343)	Mesler 2020 pers. comm.	Unknown			Shasta-Trinity NF	
12	Natural Bridge - trail from picnic area, just past creek [Maps to upslope of Forest Road 31N19, just south of Natural Bridge Picnic Area.]	Trinity	Wildwood (4012343)	Mesler 2020 pers. comm.	2019			Shasta-Trinity NF	2880
13	Rail Fire. [Maps to upslope of Hwy 3, north of Peanut]	Trinity	YGNBHG	Mesler 2020 pers. comm.	2017			Shasta-Trinity NF	3720

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.)**
14	FS 7, north of intersection of FS 14 [Maps to along Ragan Meadows Rd (Forest Road 7), north of Forest Road 14.]	Trinity	Naufus Creek (4012343)	Mesler 2020 pers. comm.	2013			Shasta-Trinity NF	4075
15	NF 7, south of intersection w/ NF 10.	Trinity	Halfway Ridge (4012353)	Mesler 2020 pers. comm.	2011			Shasta-Trinity NF	
16	Rd from Hwy 3 to Wildwood (13.5 mile sign on pavement)	Trinity	Hayfork Summit (4012351)	CCH2, Dec. 2021 (HSC-103133)	30-May-2010	Understory of open conifer forest. Associated species: Pseudotsgua menziesii, Pinus jeffreyi, Arbutus menziesii		Shasta-Trinity NF	2600
16	Rd from Hwy 3 to Wildwood (13.5 mile sign on pavement)	Trinity	Hayfork Summit (4012351)	CCH2, Dec. 2021 (HSC-103477)	30-May-2010	Understory of open conifer forest. Associated species: Pseudotsgua menziesii, Pinus jeffreyi, Arbutus menziesii		Shasta-Trinity NF	2600
16	[Maps to Rd from Hwy 3 to Wildwood (13.5 mile sign on pavement)]	Trinity	Hayfork Summit (4012351)	Mesler 2020 pers. comm.	Unknown			Shasta-Trinity NF	
17	North of Indian Valley Guard Station on NF 10	Trinity	Halfway Ridge (4012353)	CCH2, Dec. 2021 (HSC-103732)	8-Jun-2011	Exposed roadside slope. Associated species: Pinus ponderosa, Pseudotsuga menziesii, Quercus garryana		Shasta-Trinity NF	4050
17	[Maps to North of Indian Valley Guard Station on NF 10.]	Trinity	Halfway Ridge (4012353)	Mesler 2020 pers. comm.	Unknown			Shasta-Trinity 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.)**
18	Along Hwy. 3, about 1/2 mi. S of Hayfork	Trinity	Hayfork (4012352)	CCH2, Dec. 2021 (HSC-71205)	19-May-1979	Wet roadside		Unknown	2300
19	E side of Vista Lane, 5 mi. N of junction with Highland Dr., 3 mi. N of Hyampom Rd.	Trinity	Hayfork (4012352)	CCH2, Dec. 2021 (HSC-81879)	7-May-1980			Unknown	2200
20	Town of Hayfork	Trinity	Hayfork Summit (4012351)	CCH2, Dec. 2021 (HSC-4196)	15-May-1966	Rocky soils		Unknown	2000
21	Summit Creek Rd, near Hayfork [Maps to upslope of Summit Creek Road, E of Willow Gulch.]	Trinity	Hayfork Summit (4012351)	Mesler 2020 pers. comm.	2016			Shasta-Trinity NF	2837
22	3 miles south of Hayfork Summit at pmm 15.0	Trinity	Hayfork Summit (4012351)	CCH2, Dec. 2021 (HSC-)103726	15-May-2011	Open grassy hillside adjacent to oak-pine forest. Associated species: Pinus ponderosa, Quercus garryana		Unknown	2700
22	[Maps to 3 miles S of Hayfork Summit at pmm 15.0.]	Trinity	Hayfork Summit (4012351)	Mesler 2020 pers. comm.	Unknown			Unknown	
23	4.6 miles west of Hayfork along Hyampom Rd	Trinity	Halfway Ridge (4012353)	CCH2, Dec. 2021 (HSC-103727)	29-May-2011	Grassy understory of oak-douglas fir forest. Associated species: Quercus garryana, Pseudotsuga menziesii		Shasta-Trinity NF	2300

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.)**
23	West of Hayfork on Hyampom Rd	Trinity	Hayfork (4012352)	CCH2, Dec. 2021 (HSC-103729)	7-Jun-2011	Open roadside. Associated species: Pseudotsuga menziesii, Quercus garryana, Pinus ponderosa		Shasta-Trinity NF	2100
23	Hyampom Rd, west of Hayfork	Trinity	Hayfork (4012352)	Mesler 2020 pers. comm.	Unknown			Shasta-Trinity NF	2100
23	North of Hyampom along NF 60 [Maps upslope of Hyampom Rd, W of Hayfork.]	Trinity	Halfway Ridge (4012353)	Mesler 2020 pers. comm.	Unknown			Shasta-Trinity NF	2300
24	Summit Creek Rd [Maps upslope of Hwy 3, N of Wildwood]	Trinity	Hayfork Summit (4012351)	Mesler 2020 pers. comm.	20-May-2018			Shasta-Trinity NF	3060
25	Summit Creek Rd [Maps along Hwy 3, E of Lorenz Canyon and E of Hayfork.]	Trinity	Hayfork Summit (4012351)	Mesler 2020 pers. comm.	2018			Unknown	3460
26	Near Hayfork Summit, summit of ridge	Trinity	Hayfork Summit (4012351)	CCH2, Dec. 2021 (HSC-4193)	1-Jun-1966	Serpentine-Second growth pine		Unknown	3900
26	near summit on Weaverville Road (Hay Fork Mountain); Northern Coast Ranges, Hay Fork Mountain	Trinity	Hayfork Summit (4012351)	CCH2, Dec. 2021 (UC1198356); Mesler et al. 2020	30-Jun-1923	Yellow pine forest		Unknown	3600

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.)**
27	Hyapom Rd, entrance to dump. [Maps along Hwy 3, E of Hyampom.]	Trinity	Hyampom (4012354)	Mesler 2020 pers. comm.	2011			Shasta-Trinity NF	
28	west of Hyampom on country rd 311 [Maps along Lower South Fork Rd, NW of Hyampom.]	Trinity	Hyampom Mtn. (4012364)	Mesler 2020 pers. comm.	7-Jun-2011			Unknown	
29	Near Hyampom along county road 311	Trinity	Hyampom Mtn. (4012364)	CCH2, Dec. 2021 (HSC-103728)	7-Jun-2011	Grassy roadside slope. Associated species: Pseudotsuga menziesii, Arbutus menziesii, Iris tenuissima, Clarkia concinna		Unknown	1270
29	[Maps near Hyampom along county road 311.]	Trinity	Hyampom Mtn. (4012364)	Mesler 2020 pers. comm.	Unknown			Unknown	
29	[Maps near Hyampom along county road 311.]	Trinity	Hyampom Mtn. (4012364)	Mesler 2020 pers. comm.	Unknown			Unknown	
30	Little Rock Campground along county rd 301 near Hyampom [Maps along Road 311, just S of Little Rock Campground, NW of the Hyampom Valley.]	Trinity	Hyampom Mtn. (4012364)	Mesler 2020 pers. comm.	2018			Unknown	1240

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.)**
31	Big Slide, along county 311 near Hyampom [Maps along Road 311, just SE of Big Slide Campground.]	Trinity	Hyampom Mtn. (4012364)	Mesler 2020 pers. comm.	2017			Shasta-Trinity NF	1270
32	Castle fire. [Maps along FS Road 4N04, N of Hyampom.]	Trinity	Hyampom Mtn. (4012364)	Mesler 2020 pers. comm.	2017			Shasta-Trinity NF	3720
33	FS 4N20 off FS 6 near Hyampom [Maps to ridge between Grapevine Creek and Saddle Gulch, W of Road 311.]	Trinity	Sims Mountain (4012365)	Mesler 2020 pers. comm.	2018			Shasta-Trinity NF	
33	[Maps to ridge between Grapevine Creek and Saddle Gulch, W of Road 311.]	Humboldt	Sims Mountain (4012365)	Mesler 2020 pers. comm.	Unknown			Shasta-Trinity NF	
34	FS 4N20 off FS 6 near Hyampom [Maps to drainage between Grapevine Creek and Saddle Gulch, W of Road 311.]	Trinity	Sims Mountain (4012365)	Mesler 2020 pers. comm.	2018			Shasta-Trinity NF	
35	Along FS Rd. 4N09, 1.9 mi. from junction with Rd. 60 (Underwood Mtn. Rd.)	Trinity	Hyampom Mtn. (4012364)	CCH2, Dec. 2021 (HSC-67332)	30-May-1980	Jeffrey Pine woodland serpentine		Shasta-Trinity NF	3700

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.)**
35	Underwood Mountain (Trinity County, California, US) Jeffrey pine, incense-cedar on ultramafic soil; Rattlesnake Creek Terrane	Trinity	Hyampom Mtn. (4012364)	CalPhotos, Dec. 2021 (ID: 0000)0000 1009 3003, 3004, 3001, 3002, 3005	10-Jun-2009			Shasta-Trinity NF	
35	Along Rd. 60 (Underwood Mtn. Rd.), 10 mi. S from junction with Hwy. 299	Trinity	Hyampom Mtn. (4012364)	CCH2, Dec. 2021 (HSC-67384)	30-May-1980	Chaparral serpentine		Shasta-Trinity NF	4400
35	Shasta-Trinity National Forest, along FS Rd. 4N25 (Clark Creek Loop) at junction with FS Rd. 4N25C, 2 mi. S of junction with Rd. 60 (Underwood Mtn. Rd.)	Trinity	Hyampom Mtn. (4012364)	CCH2, Dec. 2021 (HSC-67330)	30-May-1980	Jeffrey pine woodland serpentine		Shasta-Trinity NF	3500
35	Trinity County	Trinity	Hyampom Mtn. (4012364)	CalPhotos, Dec. 2021 (ID: 0000 0000 0920 3375, 3376, 3377, 3378)	21-May-2020			Shasta-Trinity NF	
36	Corral Bottom, powerline. [Maps to Corral Bottom, E of Hyampom Mtn.]	Trinity	Big Bar	Mesler 2020 pers. comm.	2020			Shasta-Trinity NF	2980

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.)**
37	near Manzanita Ranch, powerline. [Maps to just E of Manzanita Ranch, at jct of Grapevine Creek and S Fork Trinity River.]	Trinity	Sims Mountain (4012365)	Mesler 2020 pers. comm.	2020			Shasta-Trinity NF	1200
38	Near Castle Rock. [Maps to NE of Manzanita Ranch, on ridge between Underwood and Panther Creeks.]	Trinity	Sims Mountain (4012365)	Mesler 2020 pers. comm.	2011			Six Rivers NF	
39	FS 6 near Manzanita Ranch [Maps along Forest Road 6, W of Road 311, NW of Manzanita Ranch.]	Humboldt	Sims Mountain (4012365)	Mesler 2020 pers. comm.; CCH2, Dec. 2021 (HSC-104499)	19-May-2018	On road cut through burned conifer forest. Associated species: Pseudotsuga menziesii, Ceanothus integerrimus, Arbutus menziesii		Six Rivers NF	1680
39	[Maps along Forest Road 6, W of Road 311, NW of Manzanita Ranch.]	Trinity	Sims Mountain (4012365)	Mesler 2020 pers. comm.	Unknown			Six Rivers NF	
40	Near Underwood Creek.	Trinity	Sims Mountain (4012365)	CCH2, Dec. 2021 (HSC-71702)	26-Jun-1980	Lakeside, madrone, black oak		Six Rivers NF	1500
41	Near Sims Creek	Humboldt	Sims Mountain (4012365)	CCH2, Dec. 2021 (HSC-71746)	26-Jun-1980	Black oak woodland serpentine		Six Rivers NF	2000

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.)**
42	FS 6, 1 mile south of Sims Mtn. [Maps to South Ridge of Sims Mtn., N of Grouse Crk.]	Humboldt	Sims Mountain (4012365)	Mesler 2020 pers. comm.	19-May-2018			Six Rivers NF	3600
42	FS 6 ~1 mi south of Sims Mtn	Humboldt	Sims Mountain (4012365)	CCH2, Dec. 2021 (HSC-104497); Mesler et al. 2020	19-May-2018	Grassy open in mixed conifer forest. Associated species: Pseudotsuga menziesii, Calocedrus decurrens, Pinus jeffreyi, Festuca californica, Ceanothus cuneatus		Six Rivers NF	3600
43	West of Weaverville, just north of Hwy 299, near gate at entrance to Weaverville trail system [Maps to along Hwy 299 W of Weaverville]	Trinity	Weaverville (4012268)	Mesler 2020 pers. comm.	2016			Shasta-Trinity NF	
44	[Maps to northern edge of Underwood Mtn. along Forest Road 60, on the border of Shasta-Trinity and Six Rivers NFs.]	Trinity	Hyampom Mtn. (4012364)	Mesler 2020 pers. comm.	2020			Shasta-Trinity NF	1245

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.)**
45	trail along West Weaver Creek, accessible from locked gate at hwy 299 [Maps to ridge NW of Weaverville.]	Trinity	Weaverville (4012268)	Mesler 2020 pers. comm.	2018			Shasta-Trinity NF	2660
46	Weaver Basin Community Forest, ~0.2 mi. E of Garden Gulch/Weaver Bally Road.	Trinity	Weaverville (4012268)	CCH2, Dec. 2021 (HSC-103168)	22-Apr-2014	Grey pine/white oak woodland		Shasta-Trinity NF	2300
46	Near Weaverville, along Garden Gulch Trail (Weaverville Basin Scenic Trail) on East Bally Rd	Trinity	Weaverville (4012268)	CCH2, Dec. 2021 (HSC-103724)	6-Jun-2010	Open oak-pine forest. Associated species: Pinus ponderosa, Quercus garryana, Arctostaphylos, Dichelstemma multiflora		Shasta-Trinity NF	2300
46	Near Weaverville, along Garden Gulch Trail (Weaverville Basin Scenic Trail) from East Bally Rd. [Maps to Ridge above McKinzey Gulch, NW of Weaverville.]	Trinity	Weaverville (4012268)	Mesler 2020 pers. comm.	Unknown			Shasta-Trinity NF	2300
46	Garden Gulch Trail, N of Weaverville.	Trinity	Weaverville (4012268)	Mesler 2020 pers. comm.	Unknown			Shasta-Trinity NF	2270
46	Sidney Gulch Rd, Weaverville, CA 96093, USA	Trinity	Weaverville (4012268)	Calflora, Dec. 2021 (mu2019)	26-Apr-2020	1+ plant.		Shasta-Trinity 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.)**
46	520 Weaver Bally Rd, Weaverville, CA 96093, USA East of Weaver Bally Road on the Weaver Basin Trail	Trinity	Weaverville (4012268)	Calflora, Dec. 2021 (mu2020)	26-Apr-2020	1+ plant.		Shasta-Trinity NF	
46	520 Weaver Bally Rd, Weaverville, CA 96093, USA. East of Weaver Bally Road on Weaver Basin trail	Trinity	Weaverville (4012268)	Calflora, Dec. 2021 (po156163)	29-Apr-2020	1 plant.		Shasta-Trinity NF	
46	Weaverville.	Trinity	Weaverville (4012268)	CCH2, Dec. 2021 (CAS:BOT:86767); Mesler et al. 2020.	29 May 1880			Shasta-Trinity NF	
47	Weaverville District. Hawkeye THP. Near Calfire station. Species currently being described. Growing in rocky soil in the open or under light shade from Quercus kelloggii. Rush Creek Lakes Quadrangle	Trinity	Rush Creek Lakes (4012278)	CCH2, Dec. 2021 (SPIF02072)	22-Jun-2018			Unknown	2600

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.)**
48	Near Castle Rock on FS 5N40 about 3.2 miles from NF 60	Humboldt	Hennessy Peak (4012375)	CCH2, Dec. 2021 (HSC-103762)	3-Jun-2013	Open conifer forest understory. Associated species: Pinus ponderosa, Festuca californica, Ceanothus cuneatus, Calocedrus decurrens, Pseudotsuga menziesii		Six Rivers NF	4092
48	Near Castle Rock.	Trinity	Hennessy Peak (4012375)	CCH2, Dec. 2021 (HSC-65903)	25-Jun-1980	Greenleaf manzanita serpentine		Six Rivers NF	4700
48	Near Castle Rock	Trinity	Hennessy Peak (4012375)	CCH2, Dec. 2021 (HSC-71665)	25-Jun-1980	Greenleaf manzanita serpentine		Six Rivers NF	4200
48	NW of Castle Rock. Near Castle Rock on FS 5N40 c. 3.2 miles from NF60.	Trinity	Hennessy Peak (4012375)	CCH2, Dec. 2021 (CHSC-103776), Dec. 2021; (Mesler 2020 pers. comm.	25-May-2015			Six Rivers NF	4075
49	Shasta-Trinity National Forest, along Rd. 60/Underwood Mtn. Rd., 6.6 mi. S of junction with Hwy. 299	Trinity	Ironside Mtn. (4012374)	CCH2, Dec. 2021 (HSC-67250)	30-May-1980	Chaparral serpentine		Shasta-Trinity NF	3500
50	Big Lake via FS 60 [Maps to upslope of Bidden Creek, near Big Lake, SW of Cedar Flat.]	Trinity	Ironside Mtn. (4012374)	Mesler 2020 pers. comm.	2014			Shasta-Trinity NF	3060

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.)**
51	About 2 miles SW of Burnt Ranch on FS 5N40 0.75 miles from junction w/ FS 60 [Maps to upslope of Forest Service Road branching off Underwood Road, SW of Burnt Ranch.]	Trinity	Hennessy Peak (4012375)	Mesler 2020 pers. comm.	25-May-2015			Shasta-Trinity NF	3200
51	About 2 miles SW of Burnt Ranch on FS 5N27 0.75 miles from junction w/ FS 60	Trinity	Hennessy Peak (4012375)	CCH2, Dec. 2021 (HSC-103778)	25-May-2015	Edges and openings in conifer forest. Associated species: Pseudotsuga menziesii, Pinus ponderosa, Calocedrus decurrens, Festuca californica, Iris tenuissima		Shasta-Trinity NF	3200
51	Logging rd. to Underwood Mtn., 4 mi. from jct. wit Hwy. 299	Trinity	Hennessy Peak (4012375)	CCH2, Dec. 2021 (HSC-44400)	30-Apr-1978	Mixed evergreen forest		Shasta-Trinity NF	1200
51	Along Underwood Mtn Rd (FS 60) [Maps to upslope of Forest Service Road branching off Underwood Road, SW of Burnt Ranch.]	Trinity	Hennessy Peak (4012375)	Mesler 2020 pers. comm.	Unknown			Shasta-Trinity NF	3225

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.)**
51	[Maps to upslope of Forest Service Road branching off Underwood Road, SW of Burnt Ranch.]	Trinity	Hennessy Peak (4012375)	Mesler 2020 pers. comm.	Unknown			Shasta-Trinity NF	3224
51	[Maps to upslope of Forest Service Road branching off Underwood Road, SW of Burnt Ranch.]	Trinity	Hennessy Peak (4012375)	Mesler 2020 pers. comm.	Unknown			Shasta-Trinity NF	3212
52	NF 60, 1.1 miles from 299 [Maps to Underwood Road, SW of Burnt Ranch.]	Trinity	Ironside Mtn. (4012374)	Mesler 2020 pers. comm.	2010			Unknown	1980
52	NF 60, 1.1 miles from 299 [Maps to Underwood Road, SW of Burnt Ranch.]	Trinity	Ironside Mtn. (4012374)	Mesler 2020 pers. comm.	Unknown			Unknown	2045
53	[Maps to Burnt Ranch Campground.]	Trinity	Ironside Mtn. (4012374)	iNaturalist 2021 (44851916)	3-May-2020			Shasta-Trinity NF	1400
53	[Maps to Burnt Ranch Campground.]	Trinity	Ironside Mtn. (4012374)	iNaturalist 2021 (44851919)	3-May-2020			Shasta-Trinity NF	1400
53	[Maps to Burnt Ranch Campground.]	Trinity	Ironside Mtn. (4012374)	iNaturalist 2021 (44851922)	3-May-2020			Shasta-Trinity NF	1400
53	[Maps to Burnt Ranch Campground.]	Trinity	Ironside Mtn. (4012374)	iNaturalist 2021 (44851925)	3-May-2020			Shasta-Trinity NF	1400

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.)**
53	[Maps to Burnt Ranch Campground.]	Trinity	Ironside Mtn. (4012374)	iNaturalist 2021 (44851927)	3-May-2020			Shasta-Trinity NF	1400
53	[Maps to Burnt Ranch Campground.]	Trinity	Ironside Mtn. (4012374)	iNaturalist 2021 (44851928)	3-May-2020			Shasta-Trinity NF	1400
53	[Maps to Burnt Ranch Campground.]	Trinity	Ironside Mtn. (4012374)	iNaturalist 2021 (44851929)	3-May-2020			Shasta-Trinity NF	1400
53	[Maps to Burnt Ranch Campground.]	Trinity	Ironside Mtn. (4012374)	iNaturalist 2021 (44851930)	3-May-2020			Shasta-Trinity NF	1400
53	[Maps to Burnt Ranch Campground.]	Trinity	Ironside Mtn. (4012374)	iNaturalist 2021 (44851932)	3-May-2020			Shasta-Trinity NF	1400
53	[Maps to Burnt Ranch Campground.]	Trinity	Ironside Mtn. (4012374)	iNaturalist 2021 (44851933)	3-May-2020			Shasta-Trinity NF	1400
53	[Maps to Burnt Ranch Campground.]	Trinity	Ironside Mtn. (4012374)	iNaturalist 2021 (44851934)	3-May-2020			Shasta-Trinity NF	1400
53	Approx. 150 meters N of the Burnt Ranch Post Office, W side of Highway 299 along roadway embankment.	Trinity	Ironside Mtn. (4012374)	CCH2, Dec. 2021 (HSC-103150)	4-May-2014	Edge of Doug-fir forest		Shasta-Trinity NF	1400
53	Trail from Burnt Ranch CG to Trinity River.	Trinity	Ironside Mtn. (4012374)	CCH2, Dec. 2021 (HSC-103169)	12-May-2014			Shasta-Trinity NF	1000
53	Burnt Ranch Campground in parking lot near picnic tables	Trinity	Ironside Mtn. (4012374)	CCH2, Dec. 2021 (HSC-85432)	19-Apr-1986			Shasta-Trinity 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.)**
53	Burnt Ranch USFS campground.	Trinity	Ironside Mtn. (4012374)	CCH2, Dec. 2021 (HSC-84049)	30-Apr-1983	Oak woodland, mixed evergreen forest		Shasta-Trinity NF	1350
53	Burnt Ranch.	Trinity	Ironside Mtn. (4012374)	CCH2, Dec. 2021 (UC275265); Mesler et al. 2020.	27-Apr-1924	In open woods. Flowers white.		Shasta-Trinity NF	1500
54	FS 5N32 near Oak Knob [Maps to E side of Hogback Ridge.]	Humboldt	Hennessy Peak (4012375)	Mesler 2020 pers. comm.	2018			Six Rivers NF	
55	Six Rivers National Forest, Hennessy Peak Quad, south of Grouse Creek on Rd. 6N20.	Humboldt	Hennessy Peak (4012375)	CCH2, Dec. 2021 (HSC-103269)	16-May-2014	Roadside cut bank		Six Rivers NF	3100
55	Six Rivers National Forest, Hennessy Peak Quad, south of Grouse Creek on Rd. 6N20.	Humboldt	Hennessy Peak (4012375)	Mesler 2020 pers. comm.	Unknown			Six Rivers NF	
56	Six Rivers National Forest, Gray Falls Campground, along dirt road heading south from picnic area loop	Humboldt	Ironside Mtn. (4012374)	CCH2, Dec. 2021 (HSC-103476)	9-May-2001	Tan oak, with poison oak		Six Rivers NF	
56	Gray's Falls Campground, near head of trial to Gray's Falls	Trinity	Ironside Mtn. (4012374)	CCH2, Dec. 2021 (HSC-95383)	20-May-2003	Douglas-fir forest		Six Rivers NF	950

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.)**
56	Grays Falls Campground along trail to Isolation Mine	Trinity	Ironside Mtn. (4012374)	CCH2, Dec. 2021 (HSC-32302)	12-May-1974			Six Rivers NF	
56	Trails above Trinity River at Grays Falls Campground	Trinity	Ironside Mtn. (4012374)	CCH2, Dec. 2021 (HSC-34559)	16-May-1975	Douglas fir/madrone/oak forest		Six Rivers NF	1000
56	Trails above the Trinity River at Grays Falls Campground	Trinity	Ironside Mtn. (4012374)	CCH2, Dec. 2021 (HSC-34682)	16-May-1975	Douglas-fir and oak forest		Six Rivers NF	1000
56	Trails above the Trinity River at Grays Falls Campground	Trinity	Ironside Mtn. (4012374)	CCH2, Dec. 2021 (HSC-34837)	16-May-1975	Douglas fir, madrone, canyon live oak, Oregon white oak		Six Rivers NF	1000
56	On Hwy. 299 E of Gray's Falls Campground, 1/2 mi. E of section 58	Trinity	Ironside Mtn. (4012374)	CCH2, Dec. 2021 (HSC-97675)	14-Apr-2001			Six Rivers NF	950
56	Gray's Falls Campground (Trinity County, California, US)	Trinity	Ironside Mtn. (4012374)	CalPhotos, Dec. 2021 (ID: 0000 0000 0511 2493, 2494, 2495)	1-Jun-2010			Six Rivers NF	
57	Friday Ridge Rd, about 1.5 miles up from 299 [Maps to Friday Ridge Road, W of Trinity River and just W of the Trinity/Humboldt Co. boundary.]	Humboldt	Salyer (4012385)	Mesler 2020 pers. comm.	2010			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.)**
57	[Maps to Friday Ridge Road, W of Trinity River and just W of the Trinity/Humboldt Co. boundary.]	Humboldt	Salyer (4012385)	Mesler 2020 pers. comm.	Unknown			Unknown	
57	1 mi. up Friday Ridge Rd., 3 mi. E of Willow Creek [0.25 mile from Record 57]	Humboldt	Salyer (4012385)	CCH2, Dec. 2021 (HSC-22032)	8-May-1971			Unknown	
58	Friday Ridge Road, near intersection with Hwy. 299	Humboldt	Salyer (4012385)	CCH2, Dec. 2021 (HSC-45617)	7-May-1978			Six Rivers NF	
59	Near Brush Mtn.	Humboldt	Willow Creek (4012386)	CCH2, Dec. 2021 (HSC-73819)	7-Jun-1980	Douglas fir-tan oak-madrone forest serpentine		Six Rivers NF	3700
59	Lower Trinity Road, roadside cutbank on the road to Brush Mountain Lookout off Friday Ridge Rd. - Six Rivers National Forest	Humboldt	Willow Creek (4012386)	CCH2, Dec. 2021 (CAS:BOT:998533); Mesler et al. 2020	26-May-1983	Roadside cut bank		Six Rivers 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.)**
60	Little Rock Camp along South Fork Trinity River on Rd 311	Trinity	Hyampom (4012354)	CCH2, Dec. 2021 (HSC-104500)	19-May-2018	Understory and edge of mixed conifer forest, some plants growing in sand. Associated species: Pseudotsuga menziesii, Quercus garryana, Q. kelloggii, Arbutus menziesii, Toxicodendron diversilobum, Ceanothus integerrimus		Shasta-Trinity NF	1240
61	Ewing Reservoir near Hayfork	Trinity	Hayfork (4012352)	CCH2, Dec. 2021 (HSC-104503)	20-May-2018	In picnic area near parking lot. Open understory of oak-conifer forest. Associated species: Pseudotsuga menziesii, Quercus garryana, Pinus ponderosa		Unknown	2440
61	Ewing Reservoir near Hayfork	Trinity	Hayfork (4012352)	Mesler 2020 pers. comm.	Unknown			Unknown	
62	Along Summit Creek Rd (329) near intersection with Hwy 3 at Hayfork Summit.	Trinity	Hayfork Summit (4012351)	CCH2, Dec. 2021 (HSC-104505)	20-May-2018	Grassy roadside adjacent to oak-conifer forest. Associated species: Quercus kelloggii, Pinus ponderosa		Unknown	3460
62	Near Hayfork on Summit Creek Rd	Trinity	Hayfork Summit (4012351)	CCH2, Dec. 2021 (HSC-104485)	29-May-2016	Grassy roadside adjacent to oak-pine woodland. Associated species: Quercus garryana, Pinus ponderosa		Unknown	2840

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.)**
62	Near Hayfork, along Summit Creek Rd (329)	Trinity	Hayfork Summit (4012351)	CCH2, Dec. 2021 (HSC-104504)	20-May-2018	Grassy roadside adjacent to oak-conifer forest. Associated species: Quercus garryana, Pinus ponderosa, Pseudotsuga menziesii		Unknown	3060
63	N of confluence of Ditch Gulch and Salt Creek on Hwy. 3 near Peanut	Trinity	Dubakella Mtn. (4012342)	CCH2, Dec. 2021 (HSC-35096)	17-May-1975	Mixed conifer forest		Unknown	2525
63	W facing valley just N of the confluence of Ditch Gulch and Salt Creek on Hwy. 3 near Peanut	Trinity	Dubakella Mtn. (4012342)	CCH2, Dec. 2021 (HSC-35208)	17-May-1975	Douglas-fir forest		Unknown	2525
63	Mt. Diablo Meridian, W facing valley just N of the confluence of Ditch Gulch and Salt Creek on Hwy. 3 near Peanut	Trinity	Dubakella Mtn. (4012342)	CCH2, Dec. 2021 (HSC-35252)	17-May-1975	Douglas-fir and mixed pine forest		Unknown	2525
63	Just N of the confluence of Ditch Gulch and Salt Creek on Hwy. 3 near Peanut	Trinity	Dubakella Mtn. (4012342)	CCH2, Dec. 2021 (HSC-67544)	17-May-1975	White pine, Douglas fir, white oaks		Unknown	2525
63	Mt. Diablo Meridian, W facing valley just N of confluence of Ditch Gulch and Salt Creek, Hwy. 3 near Peanut	Trinity	Dubakella Mtn. (4012342)	CCH2, Dec. 2021 (HSC-34255)	17-May-1975	Douglas-fir and oak forest		Unknown	2525

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.)**
64	Spellenberg property, 2 mi. E of Burnt Ranch	Trinity	Ironside Mtn. (4012374)	CCH2, Dec. 2021 (HSC-4194)	16-Jun-1964	Grassy bank		Unknown	
64	Spellenberg Ranch, Burnt Ranch	Trinity	Ironside Mtn. (4012374)	CCH2, Dec. 2021 (HSC-4195)	19-Jun-1963	In grass and bracken fern on steep slope		Unknown	
65	1/2 mi. NW of Wildwood	Trinity	Hayfork Summit (4012351)	CCH2, Dec. 2021 (HSC-68117)	1-Jun-1975	Mixed conifer forest		Unknown	3000
66	between Willow and Campbell Creeks (near the summit Brannan Mountain, viz. ridge n of Willow Creek)	Humboldt	Willow Creek (4012386)	CCH2, Dec. 2021 (UC1198359); Mesler et al. 2020	7-Jul-1911	Rocky slope in open woods, in pine forest, near mountain summit. Corolla cream white.		Six Rivers NF	4000
67	On e side of Underwood Mt Rd (5N09), ca. 4.9 mi s of its jct with Trinity Hwy (299) at Burnt Ranch.	Trinity	Ironside Mtn. (4012374)	CCH2, Dec. 2021 (CHSC030159); Mesler et al. 2020	12-Jun-1980	Associates: Collinsia linearis. Corolla pure white.		Shasta-Trinity 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.)**
68	Northwest slope of Oregon Mountain, approximately 2.5 miles west of Weaverville.	Trinity	Weaverville (4012268)	Green 2021 pers. comm.	22-May-2019	350-450 plants. Maintained and disturbed transmission line right-of-way corridor within hardwood-conifer forest, westerly aspect, open canopy cover. Scattered and dense patches in maintained transmission line right-of-way. Associated species include Bromus tectorum, Apocynum androsaemifolium, Vicia sp., Iris tenuissima, and Achillea millefolium. Site quality Good.	Transmission line right-of-way maintenance. On-going maintenance activities; however, the species persists in these conditions.	Private - Sierra Pacific Industries	2900
69	Oregon Mountain, approximately 0.10 mi. south of the Oregon Mountain Communication Site, approximately 2 miles southwest of Weaverville.	Trinity	Weaverville (4012268)	Green 2021 pers. comm.	22-May-2019	200-300 plants. Conifer plantation in mixed conifer forest burned in 2015 wildfire, southerly aspect, open canopy cover, rocky soil. Associated species include Bromus tectorum, Galium ambiguum, Allium sp., and Ceanothus prostratus. The Silene nelsonii occurs in areas subject to salvage logging, replanting, and herbicide treatment disturbances. Site quality Good.	Site was burned in 2015 wildfire, has since been salvage logged and replanted, including herbicide treatment for shrubs.	Private - Sierra Pacific Industries	3900

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.)**
69	Oregon Mountain, approximately 0.10 mi. south of the Oregon Mountain Communication Site, approximately 2 miles southwest of Weaverville.	Trinity	Weaverville (4012268)	Green 2021 pers. comm.	22-May-2019	30-40 plants. Herbicide test plot within conifer plantation in mixed conifer forest burned in 2015 wildfire. Southerly aspect, open canopy cover, rocky soil. Associated species include Bromus tectorum, Viola sp., Carex sp., and Ceanothus prostratus. The Silene nelsonii occurrence consists of 1 large patch with 30-40 flowers. The site is within a herbicide test plot in a conifer plantation, and the entire plot area was herbicide treated during March 2019.	Site was burned in 2015 wildfire, has since been salvage logged and replanted, including herbicide treatment.	Private - Sierra Pacific Industries	3800
70	Oregon Mountain Road, between Oregon Ridge Road and Democrat Gulch Road, 1 to 2 miles west of Weaverville proper.	Trinity	Weaverville (4012268)	Green 2021 pers. comm.	22-May-2019	120-180 plants. Scattered occurrences ranging from 6 to 60 plants growing on road cuts and a maintained transmission line right-of-way corridor. County road right-of-way within hardwood-conifer and hardwood forest habitats in rural residential area. Various aspects, open to moderate canopy cover. Site quality Good.	Roadway right-of-way maintenance. On-going maintenance activities; however, the species persists in these conditions.	Private - Sierra Pacific Industries	3000

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.)**
71	Hillside immediately southeast of Weaverville, near unnamed headwaters tributary to Halls Gulch.	Trinity	Weaverville (4012268)	Green 2021 pers. comm.	22-May-2019	800-900 plants. The Silene nelsonii occurs in areas subject to recent timber harvest, inside and along historic mining ditches, and undisturbed areas. Conifer and hardwood-conifer forest habitats dominated by Pseudotsuga menziesii, Pinus ponderosa, and Quercus garryana. Westerly aspect, open to moderate canopy cover. Area subject to recent timber harvest; Silene nelsonii is growing in a hardwood stand established as a habitat retention area and in adjacent forest areas disturbed by harvest activities. Associated species include Cercocarpus betuloides, Arctostaphylos patula, Bromus sp., Galium ambiguum, Galium aparine, Trifolium sp., Cynoglossum grande, and Achillea millefolium. Site quality Good.	Recent timber harvest, historic mining activity.	Private - Sierra Pacific Industries	2300

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.)**
72	Northeastern slope of Underwood Mountain, headwaters of Buckhorn Creek.	Trinity	Hyampom Mtn. (4012364)	Green 2021 pers. comm.	3-Jun-2019	60-70 plants. Early-seral mixed conifer forest, northerly and southerly aspects, open to moderate canopy cover, sparse herbaceous layer, serpentine soil. Habitat heavily disturbed from wildfire, salvage timber harvest, and forest rehabilitation efforts. Associated species include conifer seedlings, Quercus vacciniifolia, Frangula californica ssp. crassifolia, Ceanothus arcuatus, Agrostis sp., and Eriogonum sp. The Silene nelsonii occurs in areas subject to the salvage logging, replanting, and herbicide treatment disturbances. In most specific occurrence locations this species is one of the only herbaceous plants found. Site quality Good.	Site was burned in 2015 wildfire, has since been salvage logged and replanted, including herbicide treatment for shrubs.	Private - Sierra Pacific Industries	4050
	Kettenpom Valley, Long Ridge Rd	Trinity	Zenia (4012324)	CCH2, Dec. 2021 (SBBG158 370)	13-Jun-18	uphill rd bank		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.)**
	FR 60 (Trinity County, California, US)	Trinity		CalPhotos, Dec. 2021 (ID: 0000 0000 0511 2496)	29-May-2011			Shasta-Trinity NF	

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.>