Species: *Silene marmorensis* Kruckeb., Marble Mountain campion

Photo Source: CalPhotos 2021

Photo Credits: Left: Neal Kramer (with permission); center and right: Dana York.

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 Marble Mountain campion		
Entity	**Status**	**Status Definition**
NatureServe CA[a]	G2, S2	G2: Imperiled — At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.

		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.
California Rare Plant Rank[b]	1B.2	1B: Plants rare, threatened, or endangered in California and elsewhere. 0.2: Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat) This taxon was added to the *CNPS Inventory of Rare and Endangered Plants of California* in 1980 and has undergone no changes since 2001 (CNPS 2021).
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.

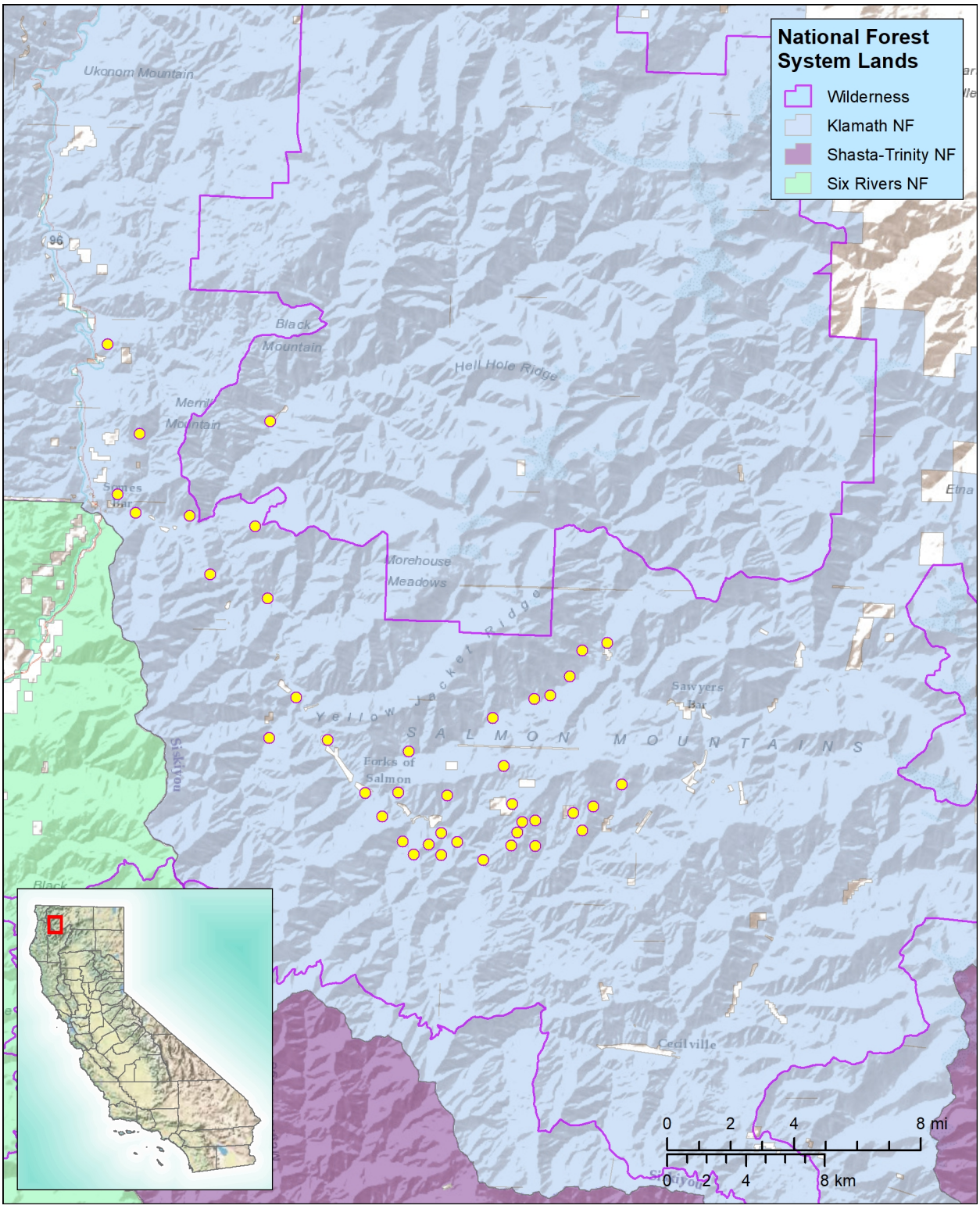
Distribution, abundance, and population trend on the planning unit[1]

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 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.

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

Table 2. Known occurrence frequency of Marble Mountain campion 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
Klamath:	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41	41	0	3	38	6-Jun-2021	41
Totals:	N/A	41	0	3	38	N/A	41



Sources: *Distribution*: CalPhotos 2021, CCH2 2021, CNDDB 2021, York 2021 pers. comm. *Baselayers*: 2013 National Geographic Society, i-cubed, Esri, Garmin, NOAA, NPS, USGS.

Marble Mountain campion was last updated in the CNDDB on December 31, 2015 (CNDDB 2021), and therefore all Calflora, CCH, and/or NRIS records prior to this date are assumed to have already been reviewed and entered into the CNDDB for this plant. Accordingly, only records from Calflora, CCH, and/or NRIS reported after this date have been reviewed for potential new or updated occurrence information and are included in Table 4 in Appendix 1 as applicable.

Endemic to California, Marble Mountain campion is found along the Klamath and Salmon river drainages (and their tributaries) in the Marble and Salmon Mountains of Siskiyou County within the Klamath Ranges (KR) bioregion. Of the 41 known location records for this species (Table 4), all are at least partly on Klamath National Forest lands; one record (#8) is located within Wilderness Area in the Marble Mountain Wilderness. Thirty-eight of the 41 location records are historical (last observed over 20 years ago). A majority of the locations were first recorded between 1976 and 1996, with early observations by Glenn Clifton under contract to the Forest Service and then many more observations between 1986 and 1989 by Forest Botanist Marla Knight (Knight 2021 pers. comm.). Forty of the location records have population size data, and 18 locations have been censused over time, with numbers of plants ranging from one individual to 2000. The data obtained from repeated observations indicate that the population numbers recorded in this species fluctuate from one year to the next; in some cases, this is due to surveyors visiting different parts of a larger population or in several cases due to fire, but in other cases, there is no readily available explanation for the large variation in number of (perennial) individuals from year to year. Approximately seven populations had 1–10 plants, 15 had 11–100 plants, 15 had 101–1000 plants, and three had over 1000 plants (at least on one of the visits). As it has been over 30 years since many of the sites have been visited, and the locations where it occurs are remote, the long-term trends are unknown. The most recent observations, made in June 2021, indicate that one population (record #8) may have decreased from ca. 300 plants in 1986 to 100 today (York 2021 pers. comm.). Another population (record #13) may have fallen from ca. 400 plants in 1988 to about 20 today. In addition, no plants could be found at two of the locations (record #s 4 and 9) by the 1980s. Addition observations are needed.

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

Marble Mountain campion is a perennial herb from a branched caudex bearing several slender, glandular-hairy, erect stems to 4 dm tall, each with 5–7 pairs of leaves. The terminal, raceme-like inflorescences bear pale pink flowers that bloom from May to August (Kruckeberg 1960, Nakamura and Kierstead 2001, CNPS 2021, JEPS 2021). Plants are found on flat to steep terrain, sometimes along roadsides, often on southern exposures on ridges, in understory or edges of openings within broadleaved upland forest, cismontane woodland, lower montane coniferous forest, and chaparral at 170–1268 m (560–4160 ft) in elevation (Nakamura and Kierstead 2001, CNDDB 2021, CNPS 2021). It grows on rocky, sandy, or gravelly soils, often derived from gabbro, but sometimes derived from metamorphic, sedimentary, metasedimentary, serpentine, or granitic substrates (Kruckeberg 1960, CCH2 2021, CNDDB 2021). Associated species include *Pseudotsuga menziesii*, *Pinus* spp., *Quercus* spp., *Acer macrophyllum*, *Arbutus menziesii*, *Notholithocarpus densiflora*, *Chrysolepis chrysophylla*, *Ceanothus* spp., *Arctostaphylos viscida*,

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

Corylus cornuta, Cynoglossum occidentale, *Galium* spp., *Polystichum munitum*, and *Pteridium aquilinum* (Kruckeberg 1960, CNDDB 2021, York 2021 pers. comm.).

The genus *Silene* has approximately 850 species and is widely distributed in temperate regions (Jafari et al. 2020). The relationship of Marble Mountain campion to other species within the genus has not yet been investigated using molecular phylogenetics, however Kruckeberg (1960, 1961) believed it to be closely related to *S. campanulata*, *S. lemmonii*, and *S. bridgesii*, all of which are tetraploid, have similar inflorescence and floral characteristics, share a similar fruit type (a cartilaginous capsule), and have large, coarsely papillate, dark-colored seeds. It is most similar in appearance to *S. bridgesii*, a species of the Sierra Nevada and southern Cascades, but it differs from that species in having a narrower inflorescence, ascending (rather than deflexed) flowers that are pinkish (rather than white), and styles and stamens that are about equal to the petals (rather than longer) (FNA 1993+, Nakamura and Kierstead 2001). Marble Mountain campion differs from all other *Silene* species by its combination of the following characters: several wiry, weakly ascending stems each with 5–7 pairs of short, lanceolate leaves; an open, lax, glandular inflorescence with 4–6 nodes, each with a pair of flowers; and pinkish, bifid petals with short, broad appendages (Kruckeberg 1960).

Although some *Silene* species are dioecious, most of the western North American species have bisexual flowers, with the stamen developing before the pistil. The stamens are exserted from the corolla in two successive whorls of five, with the stigma becoming receptive later that same day or the following day (Kruckeberg 1961). The pollinators of Marble Mountain campion are unknown, but, as the flowers open at night, they may be pollinated by moths (FNA 1993+), or they could be self-pollinating (Reynolds et al. 2009, Jafari 2020). The flowers close by midday, and the petals shrivel, leading some observers to speculate that each flower just opens once (Nakamura and Kierstead 2001, Knight 2021 pers. comm.). The capsular fruit of Marble Mountain campion dehisces by apical valves to release the seeds, which are unwinged and fall to the ground (FNA 1993+). Late in the season, the sticky-glandular stems become covered with insects, and they lie on the ground (Knight 2021 pers. comm.). As this species is often found along animal trails, it has been hypothesized that the sticky stems and fruit may be dispersed by adhering to animals (bear, horses, deer) (CNDDB 2021, Knight 2021 pers. comm.). 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).

The habitats where Marble Mountain campion grows are variable in terms of slope, vegetation cover, soil type, and light level (CNDDB 2021; Table 4). Numerous location records in Table 4 mention that it regenerates after fire, and those familiar with this species in the field know it to be a fire follower that benefits from disturbance. Populations are large and robust after a fire and then decrease in size with time (Lonergan et al. 2018 pers. comm., Knight 2021 pers. comm.). Similarly, it has been observed in disturbed areas such as constructed fire lines and timber plantations (Knight 2021 pers. comm.). Therefore, its optimal habitat may be high-light, early-seral habitat, and plants located in the understory of forests may be the last vestiges of populations that once occupied early-seral habitat.

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

This species is known from 41 occurrences that occupy a broad elevational range and a variety of habitats in a relatively small area of the Klamath Ranges bioregion. Fifteen locations have occurrence quality rankings recorded over 20 years ago: three are rated excellent, three good, seven fair, and two poor (CNDDB 2021). The population status at 38 of the locations is unknown, and there is some indication from recent observations that population numbers may be decreasing. Threats listed for this species include trail use, road and trail maintenance and construction, timber harvest activities, herbicide use, cattle and horse grazing, and mining activities (CNDDB 2021). However, the disturbance provided by some trail/road construction or timber harvest activities may actually benefit this species, and the decrease in such disturbance due to a reduction in timber harvests on the Klamath National Forest may be detrimental (Lonergan et al. 2018 pers. comm., Knight 2021 pers. comm.). Marble Mountain campion was previously listed as Sensitive for Region 5 of the National Forest Service, and it was removed from that list after data was collected showing that this species is an early-seral species that appears in large numbers after fire and disturbance (Knight 2021 pers. comm.).

Adverse affects on this species due to climate change are difficult to predict but would most likely involve responses to changes in temperature and rainfall patterns, which could affect seed germination and plant longevity and have adverse effects on pollinator services (Scaven and Rafferty 2013, Gremer et al. 2020). The wide elevational range, broad soil and habitat tolerance, and ability to regenerate after fire, may allow this species to survive some of the adverse effects of climate change better than species with narrower habitat preferences. Seed collection of this species for *ex situ* conservation has not yet been carried out (CPC 2021).

Taxonomy[4]

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

Table 3. Name status of Marble Mountain campion

Entity	Name Status
CNDDB and CNPS	*Silene marmorensis* Kruckeberg
Jepson eFlora	*Silene marmorensis* Kruckeb.
Jepson Manual (1993)	*Silene marmorensis* Kruckeb.
Flora of North America	*Silene marmorensis* Kruckeberg
USDA NRCS[a] PLANTS	*Silene marmorensis* Kruckeb.

[a] Natural Resources Conservation Service [NRCS 2021]

Synonymy: There are no synonyms for this name (Tropicos 2021).

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

Jepson eFlora link (JEPS 2021): https://ucjeps.berkeley.edu/eflora/eflora_display.php?tid=44535

Type locality: Siskiyou County, 1.0 mile north of Somes Bar on road to Camp Three (*Hitchcock 20221*, WTU) (Kruckeberg 1960).

Key literature

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. 1960. A new *Silene* from northwestern California. *Madroño* 15:172–177.

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

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.

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 June 2021].

[CDC] California Department of Conservation. 2015. Geologic Map of California (2010). California Geological Survey, Geologic Data Map No. 2. Available at https://maps.conservation.ca.gov/cgs/gmc/ [accessed June 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 June 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, June 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 June 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 June 2021].

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

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

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 June 2021].

Kruckeberg, A. 1960. A new *Silene* from northwestern California. *Madroño* 15:172–177.

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

Nakamura, G. and J. Kierstead. 2001. *Illustrated Field Guide to Selected Rare Plants of Northern California*. University of California Agricultural and Natural Resources, Oakland, California.

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

[NRIS] U.S. Department of Agriculture Forest Service, Natural Resource Information System. 2021. Natural Resource Information System; Threatened, Endangered and Sensitive Plants—Invasive Plants [accessed March 2021].

[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].

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 June 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 June 2021].

Persons Contacted

Lonergan, E., M. Knight, D. York, M. Widdowson, and A. Snodgrass. 2018. Botanists: Klamath National Forest (Knight, Lonergan, Snodgrass), CA Department of Transportation (York), ICF International, Inc. (Widdowson). Information submitted at Klamath/Shasta-Trinity FS-SCC and Important Plant Areas (IPA) Workshop, Yreka, California.

Knight, Marla. 2021. Forest Botanist, Klamath National Forest (retired). Email correspondence regarding populations and ecology of *Silene marmorensis*. Personal communication 17 June 2021.

York, Dana. 2021. Field Botanist. Email correspondence regarding population status of *Silene marmorensis* from the Marble Mountains. Personal communication 13 June 2021.

Author(s) and Date:

Ellen A. Dean, California Native Plant Society, Associate Rare Plant Botanist, 17 June 2021; finalized 7 October 2021.

Reviewer(s) and Date:

Aaron E. Sims, California Native Plant Society, Rare Plant Program Director, 22 September 2021; Julie Ann Kierstead, USDA Forest Service Region 5, Ecosystem Planning, 23 September 2021.

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 Marble Mountain campion within California (NRIS, CNDDB, Calflora/CCH databases).

Duplicate records from the same site are given the same record number and are included in red.

Rec. #	Locality	County	Quad	Ref. (Source)	Date Last Obs'd	Population Info	Threats	Land Mgr.	Elev. (ft.)
1	SOUTH SIDE OF BLUE RIDGE IN NEGRO CREEK DRAINAGE, 1 AIR MILE ENE OF PICAYUNE LAKE.	Siskiyou	Sawyers Bar (4112332)	CNDDB, Jan. 2021 (EO 1)	1-Jul-1988	FEWER THAN 50 PLANTS IN 1984. 15+ PLANTS IN 1987. 75+ PLANTS IN 1988. PLANTS MAY HAVE BEEN BROUGHT IN BY HORSES AFTER HOG BURN ACCORDING TO KNIGHT.		Klamath NF	4100
2	ABOUT 0.3 TO 0.5 MILE NORTH OF AHLGREN RANCH, NEAR LITTLE NORTH FORK SALMON RIVER.	Siskiyou	Sawyers Bar (4112332)	CNDDB, Jan. 2021 (EO 2)	9-Jul-1987	UNKNOWN NUMBER OF PLANTS SEEN IN 1979. 100+ PLANTS OBSERVED IN 1987. A 1976 SAWYER & STILLMAN COLLECTION IS ALSO ATTRIBUTED TO THIS SITE.	TRAIL GOES THROUGH OCCURRENCE AND CATTLE ARE DRIVEN THROUGH TRAIL.	Klamath NF	2240
2	Streamside terraces and lower slopes along the Little N Fork of the Salmon River.	Siskiyou	Sawyers Bar (4112332)	CCH2, Nov. 2020 (HSC41680)	1-Jul-1976			Klamath NF	2402
2	Streamside terraces and lower slopes along the Little N Fork of the Salmon River.	Siskiyou	Sawyers Bar (4112332)	CCH2, Nov. 2020 (PUA17689)	1-Jul-1976			Klamath NF	2401

Duplicate records from the same site are given the same record number and are included in red.									
Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
2	Local landmark: 'salmon River. Sawyer's Bar Quad.	Siskiyou	Sawyers Bar (4112332)	CCH2, Nov. 2020 (PUA21758)	26-Jun-1979	101-1000 plants; Robust and Vigorous Population;	Site not presently threatened; Nature of Endangerment: No Endangerment at this Site	Klamath NF	2240
2	Local landmark: 'salmon River. Sawyer's Bar Quad.	Siskiyou	Sawyers Bar (4112332)	CCH2, Nov. 2020 (PUA21785)	26-Jun-1979	101-1000 plants; Robust and Vigorous Population;	Site not presently threatened; Nature of Endangerment: No Endangerment at this Site	Klamath NF	2240
2	Local landmark: 'salmon River. Sawyer's Bar Quad.	Siskiyou	Sawyers Bar (4112332)	CCH2, Nov. 2020 (PUA30357)	26-Jun-1979	101-1000 plants; Robust and Vigorous Population;	Site not presently threatened; Nature of Endangerment: No Endangerment at this Site	Klamath NF	2240
2	Local landmark: 'salmon River. Sawyer's Bar Quad.	Siskiyou	Sawyers Bar (4112332)	CCH2, Nov. 2020 (PUA30359)	26-Jun-1979	101-1000 plants; Robust and Vigorous Population;	Site not presently threatened; Nature of Endangerment: No Endangerment at this Site	Klamath NF	2240

Duplicate records from the same site are given the same record number and are included in red.									
Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
3	0.2 MILE SOUTH OF FORKS OF SALMON ON MCNEAL CREEK ROAD.	Siskiyou	Forks of Salmon (4112333)	CNDDB, Jan. 2021 (EO 3)	26-May-1988	ABOUT 2000 PLANTS IN 1981. LOTS OF GRASS AT SITE, BUT S. MARMORENSIS DOING WELL, SEEMS TOLERANT OF SOME GROUND DISTURBANCE. ABOUT 500 PLANTS IN 1987 AND 850+ IN 1988 DURING EXPANDED SURVEY.	GRAZING BY HORSES, LIGHT LOGGING, DITCH DIGGING.	Klamath NF, PVT	1360
4	EAST SIDE OF KLAMATH RIVER BETWEEN IRVING CREEK AND ROGERS CREEK, ABOUT 1 AIR MILE NORTHEAST OF R LYLE DAVIS BRIDGE.	Siskiyou	Somes Bar (4112344)	CNDDB, Jan. 2021 (EO 4)	26-Jun-1979	UNKNOWN NUMBER OF PLANTS SEEN IN 1979. POPULATION HAS NOT BEEN RELOCATED FOR SEVERAL YEARS ACCORDING TO A 1986 REPORT, THOUGH LIKELY HABITAT IS STILL PRESENT.	NO THREATS IN 1979, BUT TIMBER SALE PROPOSED.	Klamath NF	1700
4	Local landmark: Rogers Creek. Forks Of Salmon Quad.	Siskiyou	Somes Bar (4112344)	CCH2 June 2021 (PUA21757)	26-Jun-1979	0-10 plants; Population Barely Existing;	Site not presently threatened; Nature of Endangerment: Logging	Klamath NF	1700

Duplicate records from the same site are given the same record number and are included in red.									
Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
5	ABOUT 5 MILES NORTH OF SOMES BAR ON USFS RD 15N17, SOUTH OF OFFIELD MOUNTAIN.	Siskiyou	Somes Bar (4112344)	CNDDB, Jan. 2021 (EO 5)	1-Jul-1986	IN 1978, CLIFTON REPORTS 250+ PLANTS ON FIELD SURVEY FORM BUT ONLY 11-100 PLANTS ON SLID REPORT. 30 STEMS (POSSIBLY ONLY 10-15 INDIVIDUAL PLANTS) OBSERVED IN 1983. 15 PLANTS OBSERVED IN 1986. INCLUDES FORMER OCCURRENCE #43.	DEER TRAIL INDICATED AS REASON FOR POPULATION DECLINE IN 1986.	Klamath NF	2700
5	Near Offield Mtn, on the Forks of Salmon quadrangle; Klamath National Forest	Siskiyou	Somes Bar (4112344)	CCH2 June 2021 (KNFY)	6-Jul-1978			Klamath NF	2700
5	Local landmark: Offield Mountain. Forks Of Salmon Quad.	Siskiyou	Somes Bar (4112344)	CCH2 June 2021 (PUA15235)	6-Jul-1978	51-100 plants; Moderately Vigorous Population;	Site not presently threatened; Nature of Endangerment: Fire	Klamath NF	2700

Duplicate records from the same site are given the same record number and are included in red.									
Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
6	1 MILE NORTH OF SOMES BAR ON USFS ROAD 15N17, 0.5 MILE WEST OF MERRILL CREEK.	Siskiyou	Somes Bar (4112344)	CNDDB, Jan. 2021 (EO 6)	29-Jun-1983	1-9 PLANTS OBSERVED IN 1979. 2 STEMS (PROBABLY 1 PLANT) OBSERVED IN 1983. TYPE COLLECTION BY HITCHCOCK IN 1954 FROM "1 MILE NORTH OF SOAMES BAR ON ROAD TO CAMP THREE" IS ALSO ATTRIBUTED TO THIS SITE.	ADJACENT TO BURNED AREA, BUT NO DISTURBANCE TO SITE.	Klamath NF	1100
6	Local landmark: Merrill Creek. Forks Of Salmon Quad.	Siskiyou	Somes Bar (4112344)	CCH2 June 2021 (PUA21720)	26-Jun-1979	0-10 plants; Population Barely Existing	Site not presently threatened. No Endangerment at this Site	Klamath NF	1151
6	Local landmark: Merrill Creek. Forks Of Salmon Quad.	Siskiyou	Somes Bar (4112344)	CCH2 June 2021 (PUA30039)	22-Jun-1954			Klamath NF	1151
7	BETWEEN GODFREY RANCH AND BLUE RIDGE RANCH ON USFS ROAD 39N30.	Siskiyou	Cecilville (4112322)	CNDDB, Jan. 2021 (EO 7)	27-Jul-1988	SEEN IN 1986. 100+ PLANTS IN 1987. PLANTS DO NOT OCCUR IN DISTURBED AREAS. MONITORING PLOTS SET UP TO MONITOR FOR AT LEAST 5 YEARS. 25+ PLANTS AT NORTHERN COLONY AND 165+ PLANTS AT SOUTHERN COLONY IN 1988.	IN SEPTEMBER 1986 OCCURRENCE DISTURBED BY LOGGING ACTIVITIES; OCCURRENCE IS WITHIN TIMBER SALE.	Klamath NF	3680

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
8	WOOLEY CREEK TRAIL TO BRIDGES CREEK TRAIL IN MARBLE MOUNTAIN WILDERNESS, KLAMATH NATIONAL FOREST.	Siskiyou	Somes Bar (4112344)	CNDDB, Jan. 2021 (EO 8)	8-Aug-1988	250-300 PLANTS AT SOUTH END OF OCCURRENCE IN 1986. 2000+ PLANTS SEEN IN 1987. 200+ PLANTS SEEN IN 5(10) X 500 M AREA IN 1988. TRAIL GOES THROUGH OCCURRENCE, BUT PLANT SEEMS TO THRIVE AFTER SOME DISTURBANCE.	TRAIL MAINENANCE.	Klamath NF	1200
8	Klamath NF, Marble Mountain Wilderness, along Wooley Creek Trail.	Siskiyou		CalPhotos (ID: 0000 0000 0621 1121 (2021-06-10); York 2021 pers. comm.	6-Jun-2021	Observed ca. 100 plants distributed over several miles. Dry slopes next to trail associated with Arbutus menziesii, Chrysolepis chrysophylla, Notholithocarpus densiflorus, Pinus ponderosa, Pseudotsuga menziesii, Quercus garryana, and Q. kelloggii.		Klamath NF	
9	1/10 MILE ON WOOLEY CREEK TRAIL FROM TRAILHEAD, NORTH OF THE SALMON RIVER.	Siskiyou	Somes Bar (4112344)	CNDDB, Jan. 2021 (EO 9)	7-Jul-1986	4 PLANTS OBSERVED IN 1986. PLANTS MAY HAVE BEEN SPREAD HERE BY ANIMALS SINCE FIRS ARE STICKY. NO PLANTS SEEN IN 1988, SURVEY WAS LATE IN YEAR AND MAY HAVE OVERLOOKED PLANTS.	TRAIL BESIDE POPULATION.	Klamath NF	750

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
10	ALONG USFS RD 11N09A OFF OF RD 11N09, ABOUT 0.7 AIR MILE WNW OF THE CONFLUENCE OF DUNCAN CREEK WITH SALMON CREEK.	Siskiyou	Orleans Mtn. (4112334)	CNDDB, Jan. 2021 (EO 10)	24-Jun-1987	24 PLANTS SEEN IN 1986 AT USFS POPULATION #4-5-9 AND 2 PLANTS SEEN IN 1987 AT USFS POPULATION #4-5-14.	PLANTS ADJACENT TO LOGGING ROAD & LANDING; IN EXIT TIMBER SALE.	Klamath NF	2200
10	FS Rd 11N09A, Duncan Crk watershed; Klamath National Forest	Siskiyou	Orleans Mtn. (4112334)	CCH2, June 2021 (KNFY)	24-Jun-1986			Klamath NF	2400
11	NW OF LITTLE NORTH FORK CAMPGROUND & ALONG GARDEN GULCH TRAIL.	Siskiyou	Sawyers Bar (4112332)	CNDDB, Jan. 2021 (EO 11)	17-Oct-1988	ABOUT 25 PLANTS SEEN IN SMALL PORTION OF OCCURRENCE IN 1980. ABOUT 100+ PLANTS SEEN IN 1987. 234+ PLANTS OBSERVED IN APRIL 1988 AND 554+ PLANTS OBSERVED IN OCTOBER 1988. USFS POP #4-5-5 & 4-5-15.	AREA HAS BEEN LOGGED IN PAST, TRAILS GO THROUGH OCCURRENCE, FIRE SUPPRESSION. THREAT OF FUTURE ROAD CONSTRUCTION.	Klamath NF	2800
11	close to town Forks of Salmon (Little North Fork, near Salmon River); Sawyer's Bar Quad., near Salmon River, Little North Fork	Siskiyou	Sawyers Bar (4112332)	CCH2, June 2021 (UC1475705)				Klamath NF	2241

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
11	Local landmark: Garden Gulch. Sawyer's Bar Quad.	Siskiyou	Sawyers Bar (4112332)	CCH2, June 2021 (PUA32428)	31-Jul-1980	21-50 plants; Robust and Vigorous Population;	Site Endangered; Nature of Endangerment: Grazing	Klamath NF	2800
12	ALONG SALMON RIVER TRAIL, >1 MILE EAST OF SOMES BAR, SOUTH OF SALMON RIVER.	Siskiyou	Somes Bar (4112344)	CNDDB, Jan. 2021 (EO 12)	19-Jun-1987	FEWER THAN 15 PLANTS IN 1987. PLANTS ARE ALONG TRAIL AND PERIWINKLE (A WEED) HAS INVADED THE AREA AND IS COMPETING WITH S. MARMORENSIS.		Klamath NF	560
13	WEST OF SALMON RIVER ROAD AT NORDHEIMER FLAT, BETWEEN QUAIL FLAT AND BLOOMER MINE.	Siskiyou	Forks of Salmon (4112333)	CNDDB, Jan. 2021 (EO 13)	17-Jul-2009	200+ PLANTS IN 1987 AND 413+ PLANTS IN 1988. 2009 KRAMER PHOTO ATTRIBUTED HERE. NEED MAP DETAIL FOR EXTENSIONS FOUND IN 1988; BASED ON DESCRIPTION THE POPULATION MAY EXTEND MUCH FURTHER DOWN NORDHEIMER ROAD THAN CURRENTLY MAPPED.	AREA HAS A HISTORY OF DISTURBANCE: GRAZING, ROAD CONSTRUCTION, TRAILS, ETC. PLANT MAY TOLERATE DISTURBANCE.	Klamath NF	1200
13	along Nordheimer Creek road (from Salmon Creek road up ½ mile)	Siskiyou	Forks of Salmon (4112333)	York 2021 pers. comm.	6-Jun-2021	about 20 plants	threatened by weeds and road maintenance.	Klamath NF	

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
14	HEAD OF O'FARRILL GULCH, SOUTHEAST OF GODFREY RANCH, EAST OF THE SOUTH FORK SALMON RIVER.	Siskiyou	Cecilville (4112322)	CNDDB, Jan. 2021 (EO 14)	19-May-1989	180+ PLANTS OBSERVED IN 1988. 120+ PLANTS OBSERVED IN 1989.	MAY BE IMPACTED BY LOGGING ACTIVITIES. SOME COLONIES BISECTED BY ROADS.	Klamath NF	3560
15	JUST EAST OF BLUE RIDGE RANCH ALONG ROAD 39N28, HEADWATERS OF INDIAN CREEK, EAST FORK SALMON RIVER.	Siskiyou	Cecilville (4112322)	CNDDB, Jan. 2021 (EO 15)	20-Apr-1989	130+ PLANTS OBSERVED IN 1989. SITE BURNED IN 1987, PLANTS NOW EXIST UNDER A DEAD CANOPY. INCLUDES FORMER OCCURRENCE #16. USFS POP #4-5-44.	CONTINUING ROAD MAINTENANCE & SIDE-CASTING; FIREWOOD CUTTING. LOGS HAVE ROLLED ONTO PLANTS AT MIDDLE COLONY.	Klamath NF	3860
16	EAST OF O'FARRILL GULCH, 1.4 AIR MILES NE OF YOAKUMVILLE (SITE), EAST OF THE SOUTH FORK SALMON RIVER.	Siskiyou	Cecilville (4112322)	CNDDB, Jan. 2021 (EO 17)	21-Sep-1988	30 PLANTS OBSERVED IN 1988. USFS POP #4-5-42.	WITHIN A HELICOPTER LOGGING UNIT, SURROUNDING TREES HAVE BEEN SAVED.	Klamath NF	3320

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
17	RIDGE BETWEEN INDIAN AND BLACK BEAR CREEKS, 0.7 AIR MILE WSW OF BLACK BEAR, EAST OF THE SOUTH FORK SALMON RIVER.	Siskiyou	Cecilville (4112322)	CNDDB, Jan. 2021 (EO 18)	14-Jun-1988	25+ PLANTS OBSERVED WIDELY SCATTERED OVER AN AREA OF 15 BY 50 METERS IN 1988.	ALONG ROADSIDE, ROAD PROBABLY DESTROYED PART OF POPULATION.	Klamath NF	3920
18	SOUTH OF O'FARRILL GULCH, ONE MILE NE OF YOAKUMVILLE (SITE), NORTH OF THE SOUTH FORK SALMON RIVER. USFS POP #4-5-32.	Siskiyou	Cecilville (4112322)	CNDDB, Jan. 2021 (EO 19)	29-Jun-1988	3 PLANTS OBSERVED IN 1988.	HELICOPTER LOGGING IS THREAT, ALTHOUGH THERE ARE NO TIMBER TREES IN IMMEDIATE VICINITY OF PLANTS.	Klamath NF	2900
19	WEST SLOPE INDIAN CREEK CANYON, 0.85 TO 1.8 AIR MILES NNE OF CONFLUENCE WITH SOUTH FORK SALMON RIVER.	Siskiyou	Cecilville (4112322)	CNDDB, Jan. 2021 (EO 20)	5-Jun-1989	384+ PLANTS REPORTED IN 1988. 990+ PLANTS REPORTED IN 1989.	LOGGING IS PLANNED FOR SOME COLONIES, AND OTHERS ARE CURRENTLY BEING CABLE LOGGED. PAST THREATS INCLUDE ROAD BUILDING.	Klamath NF	2500

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
20	CEMETERY JUST NORTH OF YOAKUMVILLE (SITE), NORTH OF THE SOUTH FORK SALMON RIVER.	Siskiyou	Cecilville (4112322)	CNDDB, Jan. 2021 (EO 21)	28-May-1991	IN 1991, 3 SMALL AREAS OF PLANTS OBSERVED TOTALLING 28 PLANTS.	PROPOSED TIMBER SALE.	Klamath NF	1700
21	0.4 MILE SOUTHEAST OF SHINGLE FLAT, 0.5 MILE SOUTHWEST OF MISSOURI BAR, SOUTH OF THE SOUTH FORK SALMON RIVER.	Siskiyou	Youngs Peak (4112323)	CNDDB, Jan. 2021 (EO 22)	6-Jun-1992	APPROXIMATELY 50 SCATTERED PLANTS OBSERVED IN 1992. PLANTS SEEMED HEALTHY AND VIGOROUS.	SITE WAS EVALUATED FOR HELICOPTER SALVAGE LOGGING, BUT DEFERRED DUE TO SUITABILITY AS OWL HABITAT.	Klamath NF	2400
22	SOUTH FORK SALMON RIVER BETWEEN MISSOURI BAR AND HARRY BELL GULCH AND ALONG KNOWNOTHING CREEK, NORTH OF YOUNGS PEAK.	Siskiyou	Youngs Peak (4112323)	CNDDB, Jan. 2021 (EO 23)	10-May-1988	IN 1998: 35+ PLANTS ALONG SALMON RIVER ROAD, 100+ PLANTS NORTH OF RIVER, AND 500+ PLANTS ALONG KNOWNOTHING CREEK.	ROADSIDE OCCURRENCE, FREE RANGE HORSE GRAZING, MINING, TRAIL USE, HELICOPTER TIMBER HARVEST.	Klamath NF	1400

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
23	LOWER HOTELLING GULCH FROM CECILVILLE ROAD SOUTH ABOUT 0.5 MILE, SOUTH OF THE SOUTH FORK SALMON RIVER.	Siskiyou	Youngs Peak (4112323)	CNDDB, Jan. 2021 (EO 24)	3-May-1989	150+ PLANTS OBSERVED IN 1988. 100+ PLANTS OBSERVED IN 1989.	UNKNOWN NUMBER OF PLANTS LOST TO ROAD CONSTRUCTION IN 1988.	Klamath NF	1700
24	LITTLE KLONDIKE MINE, SOUTH OF THE SOUTH FORK SALMON RIVER BETWEEN HOTELLING & O'FARRILL GULCHES.	Siskiyou	Youngs Peak (4112323)	CNDDB, Jan. 2021 (EO 25)	14-Jul-1988	200+ PLANTS OBSERVED IN 1988. USFS POP #4-5-30.	PAST THREATS INCLUDE ROAD BUILDING & MINING.	Klamath NF	1500
25	EAST SLOPE OF RIDGE BETWEEN KNOWNOTHING CRK & HOTELLING GULCH, 0.7 MI SW OF HOTELLING CAMPGROUND, S FORK SALMON RIVER.	Siskiyou	Youngs Peak (4112323)	CNDDB, Jan. 2021 (EO 26)	28-Aug-1991	3 PLANTS OBSERVED IN 1991. SITE BURNED IN 1987 AND ROAD WAS BUILT IN 1989.	ROAD BUILDING & LOGGING.	Klamath NF	2400

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
26	WEST SLOPE OF RIDGE BETWEEN KNOWNOTHING CRK & HOTELLING GULCH, 1.2 MI SW OF HOTELLING CAMPGROUND, S FORK SALMON RIVER.	Siskiyou	Youngs Peak (4112323)	CNDDB, Jan. 2021 (EO 27)	8-Jul-1988	20+ PLANTS OBSERVED IN 1988. SITE BURNED IN 1987.	WITHIN A TIMBER SALE AREA, ALTHOUGH PROBABLY SAFE FROM ANY DISTURBANCE AS LOCATED IN A PATCH OF HARDWOODS.	Klamath NF	2440
27	EAST SLOPE OF HOTELLING GULCH, 0.85 MILE SOUTH OF HOTELLING CAMPGROUND, SOUTH OF S FORK SALMON RIVER.	Siskiyou	Youngs Peak (4112323)	CNDDB, Jan. 2021 (EO 28)	3-Oct-1988	25+ PLANTS OBSERVED IN 1988; VIGOR POOR ON UPPER END OF POPULATION AND GOOD ON LOWER PORTION. USFS POP #4-5-43.	WITHIN A TIMBER SALE AREA. ALMOST ALL PLANTS HAD BEEN GNAWED OFF BY ANIMALS.	Klamath NF	2100
28	LOWER BOULDER & PECK GULCHES, NORTH OF SAWYER BAR ROAD, NORTH FORK SALMON RIVER.	Siskiyou	Sawyers Bar (4112332)	CNDDB, Jan. 2021 (EO 29)	5-Jul-1988	240+ PLANTS OBSERVED IN 1988.	TRAIL USE, TIMBER HARVEST ACTIVITIES.	Klamath NF	2200

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
29	SOUTH OF HICKEY MINE AND SAWYER BAR ROAD, NORTH OF NORTH FORK SALMON RIVER ABOUT 0.5 MILE UPSTREAM FROM KANAKA GULCH.	Siskiyou	Sawyers Bar (4112332)	CNDDB, Jan. 2021 (EO 30)	26-Apr-1995	UNKNOWN NUMBER OF PLANTS OBSERVED DURING A BRIEF SURVEY IN 1995. NEEDS REVISIT.	TRAIL USE.	Klamath NF	1840
30	BOTH SIDES OF MOUTH OF KANAKA GULCH, 0.6 AIR MILE SOUTHWEST OF HICKEY MINE, NORTH FORK SALMON RIVER.	Siskiyou	Sawyers Bar (4112332)	CNDDB, Jan. 2021 (EO 31)	5-Jul-1988	350+ PLANTS OBSERVED IN 1988.	OLD, VERY LARGE WATER PIPE, HISTORIC SALMON RIVER TRAIL, & ROAD ALL RUN THROUGH POPULATION.	Klamath NF	1950
31	NORTH OF THE NORTH FORK SALMON RIVER AND SAWYERS BAR ROAD FROM HEINEY BAR WEST ABOUT 0.75 MILE, SOUTH OF CHINA POINT.	Siskiyou	Sawyers Bar (4112332)	CNDDB, Jan. 2021 (EO 32)	17-Jul-2005	210+ PLANTS OBSERVED IN 1988. A 2005 NELSON COLLECTION FROM "ALONG ETNA-FORKS OF THE SALMON RD AT CHINA POINT, 2 MI SW OF RED BANK CAMPGROUND, SECTION 32" IS ALSO ATTRIBUTED TO THIS SITE.	TRAIL USE, LOGGING, ROAD BUILDING.	Klamath NF	1860

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
31	Along Etna-Forks of the Slamon Rd. at China Point, 2 mi. SW of Red Bank Campground (river access point).	Siskiyou	Sawyers Bar (4112332)	CCH2, Nov. 2020 (HSC 99976)	17-Jul-2005			Klamath NF	1785
32	UPPER EAST SLOPE ARGUS GULCH, ABOUT 1 AIR MILE WEST OF BLACK BEAR SUMMIT, SOUTH OF BLUE RIDGE. USFS POP #4-5-52.	Siskiyou	Sawyers Bar (4112332)	CNDDB, Jan. 2021 (EO 33)	26-Aug-1996	7 PLANTS OBSERVED IN 1996.	NO VISIBLE DISTURBANCES IN 1996.	Klamath NF	4160
33	NORTH AND EAST OF GODREY RANCH, WEST OF BLUE RIDGE, SOUTH OF THE NORTH FORK SALMON RIVER.	Siskiyou	Sawyers Bar (4112332)	CNDDB, Jan. 2021 (EO 34)	31-Jul-1990	29 PLANTS ALL WITH VERY GOOD VIGOR SEEN IN 1988. 16 PLANTS VIGOR STILL VERY GOOD IN 1990. KNIGHT CANNOT EXPLAIN THE DECLINE IN NUMBERS BETWEEN 1988 TO 1990.	PAST THREATS: MINING AND TRAIL USE. FUTURE THREATS: TRACTOR LOGGING, ALTHOUGH PLANTS WILL BE PROTECTED BY FLAGGING.	Klamath NF	3600

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
34	HEAD OF MARLEY GULCH, BETWEEN ARGUS & INDIAN GULCHES, 0.85 AIR MILE ENE OF BLUE RIDGE RANCH.	Siskiyou	Sawyers Bar (4112332)	CNDDB, Jan. 2021 (EO 35)	24-May-1988	23 PLANTS OBSERVED IN 1988. DIFFICULT TO ASSESS WHETHER THESE PLANTS ARE REMNANTS OF A MORE PROLIFIC POPULATION BEFORE LOGGING, OR WHETHER THEY HAVE MOVED IN AFTER LOGGING ACTIVITIIES.	PAST THREATS: LOGGING, GRAZING, TRAIL USE. NO PROPOSED LOGGING IN NEAR FUTURE.	Klamath NF	4000
35	EAST SIDE OF THE SALMON RIVER, FROM QUAIL FLAT TO 0.35 MILE SOUTH OF DEAD MULE GULCH.	Siskiyou	Forks of Salmon (4112333)	CNDDB, Jan. 2021 (EO 36)	26-May-1988	MORE THAN 1000 PLANTS ESTIMATED IN 1988.	PAST THREATS INCLUDE CONSTRUCTION & IMPROVEMENTS OF SALMON RIVER ROAD & TRAIL USE.	Klamath NF	1200
36	NORTH FORK OF THE SALMON RIVER, JUST WEST OF INDIAN POINT, MOUTH OF POLLOCKS GULCH.	Siskiyou	Forks of Salmon (4112333)	CNDDB, Jan. 2021 (EO 37)	28-Apr-1988	100+ PLANTS OBSERVED IN 1988.	PAST THREATS INCLUDE TRAIL USE, ROAD BUILDING, & LOGGING ACTIVITIES.	Klamath NF	1700
37	NORTH OF THE NORTH FORK SALMON RIVER AT GLASGOW BAR, 1 AIR MILE ESE OF FORKS OF SALMON.	Siskiyou	Forks of Salmon (4112333)	CNDDB, Jan. 2021 (EO 38)	15-May-1989	75+ SCATTERED ALONG THE CONTOUR IN 1989.	PRIOR ROAD CONSTRUCTION PROBABALY TOOK OUT SOME PLANTS.	Klamath NF	37

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
38	EAST OF UPPER HENRY BELL GULCH, SOUTH OF BLUE RIDGE, 2.6 AIR MILES EAST OF FORKS OF SALMON.	Siskiyou	Forks of Salmon (4112333)	CNDDB, Jan. 2021 (EO 39)	11-May-1989	25+ SCATTERED PLANTS IN 1988. 10+ WIDELY SCATTERED PLANTS IN 1989.	LOGGED IN 1978, BURNED IN 1977, 1980, & 1987, SPRAYED WITH HERBICIDES IN 1982 & 1984, & PLANTED IN 1988.	Klamath NF	38
39	RIDGE BETWEEN STEINACHER & TOM PAYNE CREEKS, EAST OF MURDERERS BAR ON THE SOUTH FORK SALMON RIVER.	Siskiyou	Orleans Mtn. (4112334)	CNDDB, Jan. 2021 (EO 40)	29-Jul-1988	233+ PLANTS OBSERVED IN 1988.	NO PLANTS FOUND ALONG ROAD. PLANT APPEARS TO BE DEPENDENT ON TRAILSIDE DISTURBANCE & SPREAD BY STOCK.	Klamath NF	39
40	SOUTH OF THE SOUTH FORK SALMON RIVER, JUST UPSTREAM FROM INDIAN BOTTOM MINE AND DOWNSTREAM FROM JAKE ALLGOOD GULCH.	Siskiyou	Orleans Mtn. (4112334)	CNDDB, Jan. 2021 (EO 41)	20-May-1996	50 PLANTS IN TWO COLONIES IN 1996.	MINING. SITE IS BASCIALLY TAILING PILES WHICH HAVE RE-VEGETATED IN SOME AREAS.	Klamath NF	40

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Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
41	EAST SIDE OF NORDHEIMER CREEK, ABOUT 0.6 MILE UPSTREAM FROM HAMMEL CREEK, EAST OF ORLEANS MOUNTAIN.	Siskiyou	Orleans Mtn. (4112334)	CNDDB, Jan. 2021 (EO 42)	18-Apr-1988	3 PLANTS ALONG TRAIL IN 1988.	HISTORIC TRAIL USE.	Klamath NF	41

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.>