Species: *Leptosiphon nuttallii* (A. Gray) J.M. Porter & L.A. Johnson subsp. *howellii* (T.W. Nelson & R. Patt.) J.M. Porter & L.A. Johnson, Mt. Tedoc leptosiphon

Photo Source: CalPhotos 2021

Photo Credits: Top left and right and bottom right: Steve Matson. Bottom left and middle: 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 Mt. Tedoc leptosiphon.		
Entity	**Status**	**Status Definition**
NatureServe CA[a]	G5T2, S2	G5: Secure — Common; widespread and abundant. T2: Imperiled — At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors

		Infraspecific Taxon — The status of infraspecific taxa (subspecies or varieties) are indicated by a "T-rank" following the species' Global Rank. Rules for assigning T-ranks follow the same principles as those for Global Ranks. However, a T-rank cannot imply the subspecies or variety is more abundant than the species. With the subspecies, the G-rank reflects the condition of the entire species, whereas the T-rank reflects the global situation of just the subspecies or variety. 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.
California Rare Plant Rank[b]	1B.3	1B: Plants rare, threatened, or endangered in California and elsewhere. 0.3: Not very threatened in California. This taxon was added to the *CNPS Inventory of Rare and Endangered Plants of California* in 1988 as *Linanthus nuttallii* subsp. *howellii* and has undergone no changes in rank since 2001.
California State Listing[c]	Not listed	
USDA Forest Service[d]	S	Sensitive
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 [USFS 2013] and Pacific NW Survey and Manage [USFS & 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.

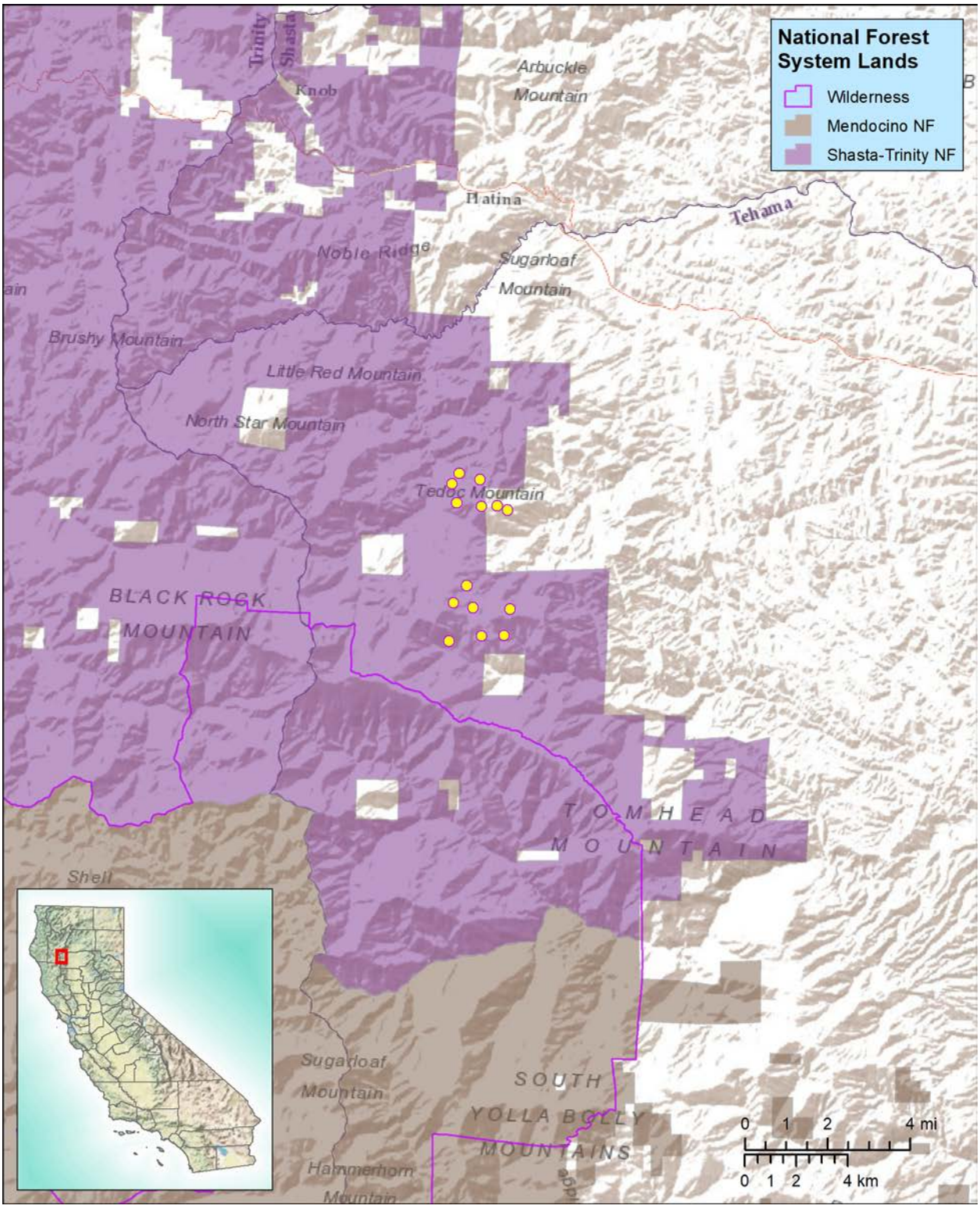
Distribution, abundance, and population trend on the planning unit[1]

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.

Table 2. Known occurrence frequency of Mt. Tedoc leptosiphon 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, 3, 4, 5, 6, 7, 8, 9, 11, 13, 14	5	7	4	8	12-Jul-2019	12
Totals:	N/A	5	7	4	8	N/A	12

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



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

Mt. Tedoc leptosiphon was last updated in the CNDDB on 22 February 2011 (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.

Mt. Tedoc leptosiphon is a Californian endemic known from a two-by-four-mile area around Tedoc Mountain and Rat Trap Ridge in the Yolla Bolly Mountains (Tehama County). (Calflora 2021, CCH2 2021, CNDDB 2021, Kierstead pers. comm. 2021, NRIS 2021). The distributional range is split between the Klamath Ranges (KR) and High North Coast Ranges (NCoRH) bioregions (JEPS 2021). Twelve of the 14 location records are on National Forest lands, all from the Shasta-Trinity National Forest. Of the remaining two records, one is on BLM land, and the other is on land of unknown ownership. No records are found in Wilderness Areas. Eight records are historical, and one of the historical records (# 8) hasn't been visited in more than 100 years. Six records have been visited over multiple years (#'s 1, 2, 3, 4, 5 and 14), with one record (# 14) persisting for at least 90 years. Five records have been censused, with population estimates ranging from less than ten individuals to more than 1000 individuals. Two of these records (#'s 1 and 3) have been censused multiple times; both showed a decrease in population size between visits. However, more data are needed to confirm any trends in population size for Mt. Tedoc leptosiphon (Calflora 2021, CCH2 2021, CNDDB 2021, Kierstead pers. comm. 2021, NRIS 2021).

Of the 14 records of Mt. Tedoc leptosiphon, five are currently included in the CNDDB. All non-CNDDB records are located further than ¼ mile from a known CNDDB occurrence.

One record from Lake County was not included in the distribution for this account and are highlighted in pink at the end of Table 4. This record is only known from a photo and no herbarium specimens appear to exist at this location (Kierstead pers.comm 2021). It is more than 50 miles from the nearest CNDDB occurrence of Mt. Tedoc leptosiphon, and should have its identification confirmed.

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

Mt. Tedoc leptosiphon is a perennial herb that flowers from May to August (Nelson and Patterson 1985, CNPS 2021). It forms a mat 7–19 cm in diameter and 4–8 cm tall and is common in the understory of Jeffrey pine and mixed conifer woodlands at 1400–1800 m elevation (Nelson and Patterson 1985, CNPS 2021). It is often (but not always) found on ultramafic substrates (CDC 2015, CNPS 2021, Kierstead pers. comm. 2021). In 2010, soil pits were dug at four sites on the Shasta-Trinity NF; bedrock ranged from strongly peridotites and serpentines, to mixed lithology (serpentines, gabbro, limestone) to strongly metasedimentary. All soils were gravelly loams to very gravelly clay loams with depths ranging from 12 to 24 inches (Rust 2010). Co-occurring species include several serpentine associates such as: *Asclepias solanoana* (CRPR 4.2), *Aspidotis densa*, *Cacaliopsis nardosmia*, *Ericameria ophitidis* (4.3), *Packera*

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

greenei, *Sabulina rosei*, and *Viola cuneata*. Other associated species include: *Astragalus whitneyi*, *Calocedrus decurrens*, *Ceanothus cuneatus* and *C. diversifolius*, *Elymus elymoides*, *Galium ambiguum*, *Iris macrosiphon*, *Pinus jeffreyi*, *Pseudotsuga menziesii*, *Quercus durata*, and *Rosa gymnocarpa* (CCH2 2021, CNDDB 2021, CNPS 2021, JEPS 2021, Kierstead et al. 2021, NRIS 2021).

The genus *Leptosiphon* consists of 31 species and nine subspecies, with its center of diversity in California. Mt. Tedoc leptosiphon is one of four perennial taxa in the genus *Leptosiphon* (Hankamp et al. 2016). It is grey and densely hairy with palmate leaves, and it has shorter leaf lobes than other subspecies of *Leptosiphon nuttallii* (Nelson and Patterson 1985, CNPS 2021). The flowers grow in clusters, and they are generally white with a yellow throat (Nelson and Patterson 1985). There is no information about pollination of Mt. Tedoc leptosiphon. Other species of *Leptosiphon* vary in their level of self-compatibility and in the importance of pollinators for reproduction. The most commonly reported pollinators for *Leptosiphon* species are long-tongued bee-flies and occasionally bees (Webber and Goodwillie 2007, Morrow 2012, Lambrecht 2013). The distribution of the perennial *Leptosiphon* taxa is disjunct, with Mt. Tedoc leptosiphon occurring approximately 54 miles south of the nearest population of *Leptosiphon nuttallii* subsp. *nuttallii*. There is little evidence that *Leptosiphon* species disperse over long distances, and these disjunct populations are probably a result of larger population fragmenting over time (Nelson and Patterson 1985).

There is little information about Mt. Tedoc leptosiphon's vulnerability to disturbance or climate change. Populations on serpentine may have some protection from fire due to the lower amounts of fuels generally found on serpentine soils (Sims pers. comm. 2021), but it does not survive high intensity burns (Kierstead pers. comm. 2021, Sims pers. comm. 2021). *Leptosiphon* species are most commonly found in dry and disturbed areas (Hankamp et al. 2016). Mt. Tedoc leptosiphon occasionally grows in disturbed areas (Kierstead pers. comm. 2021), but it is not clear how well it does after soil disturbance. Overall, little appears to be known about the ecology of Mt. Tedoc leptosiphon.

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

Habitat quality has not been described for any records of Mt. Tedoc leptosiphon. Logging activities are not currently a threat to Mt. Tedoc leptosiphon, though record # 3 was logged in the 1980s (Kierstead pers. comm. 2021). The most critical threats to this species may be the increased heat, drought, and wildfire danger brought on by climate change (Kierstead pers. comm. 2021). Research suggests that serpentine-adapted species may be more tolerant of drought than non-serpentine species, due to the functional traits needed to survive in serpentine soils (Damschen et al 2012, Harrison et al. 2015). However, lower tree canopy cover in serpentine habitats means temperature increases are more pronounced in these areas (Damschen et al. 2012, Harrison et al. 2015).

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

The low fuel habitats where Mt. Tedoc leptosiphon grows provide some protection from fire, although firefighting activities, particularly the building of fire lines, could have negative effects on this species. During the 2021 fire season fire lines were built through Mt. Tedoc leptosiphon's habitat, though none of the populations were directly affected by fire suppression activities (Kierstead pers. comm. 2021, Sims pers. comm. 2021). Without rehab, these dozer lines could become a vector for the introduction of invasive plant species, which could compete with Mt. Tedoc leptosiphon for resources and change fire regimes to favor more frequent and more uniform fires (Sims pers. comm. 2021). It has been observed that plants that were under slash piles did not regenerate after burning at record #3, suggesting that Mt. Tedoc leptosiphon is not well adapted to survive the direct effects of fire (Kierstead pers. comm. 2021). All confirmed records are within the footprint of the 2021 McFarland fire, though the burn was patchy and of variable intensity throughout their habitat (Sims pers. comm. 2021). Therefore, it is likely that at least some populations survived the direct effects of this fire. Given its extremely restricted range, Mt. Tedoc leptosiphon is probably particularly vulnerable to stochastic events such as wildfires. In addition, its ability to migrate due to climate change could be restricted by biotic interactions or dispersal ability (Ettinger and HilleRisLambers 2013), and given its restricted range, it seems likely that Mt. Tedoc leptosiphon will not be able to migrate to other suitable habitats without assistance.

Taxonomy[4]

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

Table 3. Name status of Mt. Tedoc leptosiphon.

Entity	Name Status
CNDDB and CNPS	*Leptosiphon nuttallii* (Gray) Porter & Johnson ssp. *howellii* (Nels. & Patterson) Porter & Johnson
Jepson eFlora	*Leptosiphon nuttallii* (A. Gray) J.M. Porter & L.A. Johnson subsp. *howellii* (T.W. Nelson & R. Patt.) J.M. Porter & L.A. Johnson
Jepson Manual (1993)	*Linanthus nuttallii* (A. Gray) Milliken subsp. *howellii* T.W. Nelson & R. Patt.
Flora of North America	Not yet treated
USDA NRCS[a] PLANTS	*Leptosiphon nuttallii* (A. Gray) J.M. Porter & L.A. Johnson ssp. *howellii* (T.W. Nelson & R. Patt.) J.M. Porter & L.A. Johnson

[a] Natural Resources Conservation Service [NRCS 2021]

Synonymy: *Linanthus nuttallii* (A.Gray) Greene ex Milliken subsp. *howellii* T.W. Nelson & R. Patt. (Tropicos 2021).

Jepson eFlora link (JEPS 2021): https://ucjeps.berkeley.edu/eflora/eflora_display.php?tid=80372

Type locality: "USA. California. Tehama Co., w. side of Mt. Tedoc along NF road 45, ca. 1.5 miles n. of Tedoc Gap, Yolla Bolly Quad. T28N, R9W, Sec. 28, 1500 m, 22 Jun 1980," (J.P. *Nelson and T.W. Nelson 5847*, holotype CAS) (Nelson and Patterson 1985).

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

Key literature

Nelson, T. W., and R. Patterson. 1985. A new subspecies of perennial *Linanthus* (Polemoniaceae) from the Klamath Mountains, California. *Madroño* 32(2): 102–105.

Hankamp, P., C. D. Bell, and R. Patterson. 2016. Towards a complete species level phylogeny of *Leptosiphon* (Polemoniaceae). *Madroño* 63(3): 208–219.

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Persons Contacted

Kierstead, Julie. 2021. Forest Botanist, Shasta-Trinity National Forest (retired). Email correspondence regarding distribution and threats to *Leptosiphon nuttallii* subsp. *howellii.* Personal communication 3 November 2021.

Sims, Lusetta. 2021. Botanist, Shasta-Trinity National Forest. Phone conversation regarding distribution and threats to *Leptosiphon nuttallii* subsp. *howellii*. Personal communication 5 November 2021.

Author(s) and Date:

Molly S. Wiebush, California Native Plant Society, Rare Plant Botanist Coordinator, 12 November 2021; finalized 13 January 2022.

Reviewer(s) and Date:

Aaron E. Sims, California Native Plant Society, Rare Plant Program Director, 9 December 2021; Julie Ann Kierstead, USDA Forest Service Region 5, Ecosystem Planning, 09 December 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 Mt. Tedoc leptosiphon within California (NRIS, CNDDB, Calflora/CCH databases).

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

Rec. #	Locality	County	Quad	Ref. (Source)	Date Last Obs'd	Population Info	Threats	Land Mgr.	Elev. (ft.)
1	NW SIDE OF TEDOC MOUNTAIN ALONG USFS ROAD 29N45, ABOUT 1.5 ROAD MILES NORTH OF TEDOC GAP, YOLLA BOLLY MOUNTAINS.	Tehama	Beegum West (4012238)	CNDDB, Jan. 2021 (EO 1)	7-Jun-2010	MENTIONED AS "COMMON" IN 1994. UNKNOWN NUMBER OF PLANTS OBSERVED BY NELSON IN 2010. A 1974 LESTER COLLECTION FROM SECTION 20 AND A 1972 STEBBINS COLLECTION FROM "NW SIDE TEDOC" ARE ALSO ATTRIBUTED TO THIS SITE.		Shasta-Trinity NF	4600
1		Tehama	Beegum West (4012238)	Shasta-Trinity NF	Jul-2010	brush and cedar with thin duff layer		Shasta-Trinity NF	
1	Tedoc Rd, Platina, CA 96076, USA	Tehama	Beegum West (4012238)	Calflora, Jan. 2021 (mu5766)	12-Jul-2019	1+ individuals		Shasta-Trinity NF	4652
1	Tedoc Rd, Platina, CA 96076, USA	Tehama	Beegum West (4012238)	Calflora, Jan. 2021 (mu4452)	4-Jun-2019	2 - 10 individuals		Shasta-Trinity NF	4659
1		Tehama	Beegum West (4012238)	NRIS, Jul 2021 (0514_LINUH_51_009)	16-Aug-2017	1300 individuals	threats: Road maintenance	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 red.									
Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
1	Tedoc Mountain, ca. 20 mi. west of Red Bluff, along Forest Road 45. T28N, R9W, Sec. 20, SW ¼.	Tehama	Beegum West (4012238)	Kierstead pers. comm. 2021	7-Jun-10			Shasta-Trinity NF	
1	Tedoc Rd. (Forest Rd. 45) 4.5 mi S of Pattymocus Lookout Rd., 1.5 mi N of Tedoc Gap, W of Red Bluff and S of Platina. Roadside bank. T28N R09W S20	Tehama	Beegum West (4012238)	CCH2 Oct 2021, (CHSC 2069037)	11-Jun-1994			Shasta-Trinity NF	
1	North Coast Ranges; Yolla Bolly Quad; 1.5 miles north of Tedoc Gap along Forest Service Road 45, west side of Mount Tedoc.	Tehama	Beegum West (4012238)	CCH2 Oct 2021, (OSC 4225109)	22-Jun-1980			Shasta-Trinity NF	
1	Yolla Bolly Quad. 1.5 miles N of Tedoc Gap along Forest Service road 45, west side of Mount Tedoc.	Tehama	Beegum West (4012238)	CCH2 Oct 2021, (CASC 2439032)	22-Jun-1980			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 red.									
Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
2	ALONG USFS ROAD 27N13 AND 27N12, APPROXIMATELY 2 AIR MILES SOUTH OF TEDOC GAP, YOLLA BOLLY MOUNTAINS.	Tehama	North Yolla Bolly (4012228)	CNDDB, Jan. 2021 (EO 2)	7-Jun-2010	NE POLYGON HAD <50 PLANTS IN 1988 (USFS POPULATION NUMBER 14-2). SW POLYGON WAS OBSERVED IN 2010, NUMBER OF PLANTS UNKNOWN. A 1983 NELSON & NELSON COLLECTION FROM "ALONG FOREST ROAD 27N13, 2.5 MI S OF TEDOC GAP" IS ALSO ATTRIBUTED HERE.		Shasta-Trinity NF	5500
2		Tehama	North Yolla Bolly (4012228)	Shasta-Trinity NF	Jul-2010	sparse conifer with thick duff layer		Shasta-Trinity NF	
2	2 mi. south of Tedoc Gap, ca. 20 mi. west of Red Bluff, along Forest Road 2712. T27N, R9W, Sec. 5 near Sec. 8 line.	Tehama	North Yolla Bolly (4012228)	Kierstead pers. comm. 2021	7-Jun-10			Shasta-Trinity NF	
2		Tehama	North Yolla Bolly (4012228)	NRIS, Jul 2021 (LINUH05 140005)	1-Jul-1996			Shasta-Trinity NF	
2		Tehama	North Yolla Bolly (4012228)	NRIS, Jul 2021 (LINUH05 140002)	1-Jul-1996			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 red.									
Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
3	ALONG USFS ROAD 27N13 AND 27N12, APPROXIMATELY 2.7 AIR MILES SOUTH OF TEDOC GAP, YOLLA BOLLY MOUNTAINS.	Tehama	North Yolla Bolly (4012228)	CNDDB, Jan. 2021 (EO 3)	8-Jul-1992	IN 1988, SOUTH PORTION OF POLYGON HAD 3 PLANTS (USFS POPULATION #14-3) AND NORTH PORTION OF POLYGON HAD >200 PLANTS (USFS POPULATION #14-4). 1000-1500 OBSERVED IN 1990. OBSERVED IN NE 1/4 OF SE 1/4 OF SEC 8 IN 1992. INCLUDES FORMER EO #4.		Shasta-Trinity NF	5500
3	Corolla white, throat yellow. On serpentine soil with Pinus jeffreyi, Pseudotsuga, Calocedrus. Rd 27N12 ca 0.2 mi W of jct w Rd 27N13. Elev ca 1706 m.	Tehama	North Yolla Bolly (4012228)	CCH2 Oct 2021, (CDA 4084306)	28-Jun-2010			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 red.									
Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
3	Both sides FS Rd 27N12, 2.7 mi E of jct w/ 45 Rd extending S to FS Rd 27N13. 2.5 air mi S of Tedoc Gap. NE side FS Rd 27N12, 1.1 mi E of jct w/45 Rd. (former 14-4 site combined w/14-3--see 05140003, this site slightly NW)	Tehama	North Yolla Bolly (4012228)	NRIS, Jul 2021(LINUH05140003)	1-Jul-1996			Shasta-Trinity NF	
3		Tehama	North Yolla Bolly (4012228)	NRIS, Jul 2021 (LINUH05140004)	1-Jul-1996			Shasta-Trinity NF	
3	Tehama County: along Forest Service Road 27N12, 0.3 mile from junction with road 27N13.	Tehama	North Yolla Bolly (4012228)	CCH2, Nov. 2020 (DAV301006)	1-Jul-1983			Shasta-Trinity NF	5499
4	ALONG USFS ROAD 27N12, ~1.1 TO 1.6 ROAD MILES E OF JUNCTION WITH USFS ROAD 29N45, S OF TEDOC GAP, YOLLA BOLLY MOUNTAINS.	Tehama	North Yolla Bolly (4012228)	CNDDB, Jan. 2021 (EO 5)	7-Jun-2010	UNKNOWN NUMBER OF PLANTS OBSERVED IN 2010.		Shasta-Trinity NF	5750

Duplicate records from the same site are given the same record number and are included in red. Rows containing questionable records are highlighted in red.									
Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
4		Tehama	North Yolla Bolly (4012228)	Shasta-Trinity NF	Jul-2010	open conifers with deep duff layer		Shasta-Trinity NF	
4		Tehama	North Yolla Bolly (4012228)	Shasta-Trinity NF	Jul-2010	mikxed conifers with deep duff layer		Shasta-Trinity NF	
4	1.75 mi. SSW of Tedoc Gap, ca. 20 mi. west of Red Bluff, along Forest Road 2712. T27N, R9W, Sec. 5.	Tehama	North Yolla Bolly (4012228)	Kierstead pers. comm. 2021	7-Jun-10			Shasta-Trinity NF	
4	1.5 mi. SSW of Tedoc Gap, ca. 20 mi. west of Red Bluff, south side Forest Road 2712. T27N, R9W, Sec. 5/6 line.	Tehama	North Yolla Bolly (4012228)	Kierstead pers. comm. 2021	7-Jun-10			Shasta-Trinity NF	
4		Tehama	North Yolla Bolly (4012228)	NRIS, Jul 2021 (LINUH05 140006)	26-Jun-1996			Shasta-Trinity NF	
4		Tehama	North Yolla Bolly (4012228)	NRIS, Jul 2021 (LINUH05 140007)	26-Jun-1996			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 red.									
Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
5	WEST SIDE OF TEDOC MOUNTAIN; ALONG USFS ROAD 29N45 APPROXIMATELY 1 MILE NORTH OF TEDOC GAP, YOLLA BOLLY MOUNTAINS.	Tehama	North Yolla Bolly (4012228)	CNDDB, Jan. 2021 (EO 6)	13-Jun-1988	TYPE LOCALITY. >1000 PLANTS OBSERVED IN 1988. 1979 AND 1980 NELSON & NELSON COLLECTIONS FROM SECTION 29 ARE ALSO ATTRIBUTED TO THIS SITE.		Shasta-Trinity NF	4600
5	Mount Tedoc North Coast Ranges, Yolla Bolly Quad. (w slope, along Forest Service Rd 45 at mile post 11)	Tehama	North Yolla Bolly (4012228)	CCH2, Nov. 2020 (JEPS83257)	25-Jun-1979			Shasta-Trinity NF	4498
6	Shasta-Trinity National Forests. Yolla Bolla Ranger District N. Near Unit 14 Cold Fork Timber Sale. T27N R09W S08 NE1/4 of SE1/4 USGS Quadrangle: Yolla Bolly West	Tehama	North Yolla Bolly (4012228)	CCH2, Nov. 2020 (CHSC06526)	8-Jul-1992			Shasta-Trinity NF	
7	Along Forest Service road 27N12. 3 miles from junction with road 27N13.; Yolla Bolly	Tehama	North Yolla Bolly (4012228)	CCH2 Oct 2021, (RSA 1198945)	1-Nov-1983			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 red.									
Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
8	Slopes on SW side of Forest Road 27N13, 2.5 mi S of Tedoc Gap. Yolla Bolly Mts.	Tehama	North Yolla Bolly (4012228)	NRIS, Jul 2021 (0514_LINUH_51_UNK_SURV_4)	1903			Shasta-Trinity NF	
9		Tehama	North Yolla Bolly (4012228)	NRIS, Jul 2021 (LINUH05140008)	26-Jun-1996			Shasta-Trinity NF	
10	1.5 mi. N of Tedoc Gap along FS Rd. 45, W side of Mt. Tedoc	Tehama	North Yolla Bolly (4012228)	CCH2 Oct 2021, (HSC 1818949)	22-Jun-1980			Unknown	
11	Tedoc Mountain summit,	Tehama	North Yolla Bolly (4012228)	Calflora Oct 2021	17-Jun-1972			Shasta-Trinity NF	
12	Along Tedoc Rd., 10 mi. from junction with Hwy. 36, N side of Mt. Tedoc	Tehama	North Yolla Bolly (4012228)	CCH2, Nov. 2020 (HSC215710)	21-Jul-1978			BLM	
13	Slopes of Tedoc Mtn. along Tedoc Gap Rd.	Tehama	Beegum West (4012238)	CCH2, Nov. 2020 (HSC215709)	30-Jun-1974			Shasta-Trinity NF	5000
14	Slope above FS Rd 45 at 11 mile marker (1.3 mi N of Tedoc Gap), continues down rd ca .12 mi (N). W side Tedoc Mtn.	Tehama	Beegum West (4012238)	NRIS, Jul 2021 (0514_LINUH_51_UNK_SURV_1)	1903			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 red.									
Rec. #	**Locality**	**County**	**Quad**	**Ref. (Source)**	**Date Last Obs'd**	**Population Info**	**Threats**	**Land Mgr.**	**Elev. (ft.)**
14	Tedoc Rd. (Forest Rd. 45) 4.5 mi S of Pattymocus Lookout Rd., 1.5 mi N of Tedoc Gap, W of Red Bluff and S of Platina. Roadside bank. T28N R09W S20	Tehama	Beegum West (4012238)	CCH2, Nov. 2020 (CHSC063411)	11-Jun-1994			Shasta-Trinity NF	4580
14		Tehama	Beegum West (4012238)	CCH2, Nov. 2020 (BLMRD0686)	24-Jun-1993			Shasta-Trinity NF	
	on the north side of Snow Mt.	Lake	Crockett Peak (3912247)	Kierstead pers. comm. 2021	unknown			Mendocino 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.>