California Native Plant Society

BOTANICAL RESOURCES OF THE UTOM (SANTA CLARA) RIVER WATERSHED



Prepared for: UTOM RIVER CONSERVATION FUND

February 2023

CNPS Mission Statement:

To conserve California native plants and their natural habitats, and increase understanding, appreciation, and horticultural use of native plants.

California Native Plant Society

Botanical Resources of the Utom (Santa Clara) River Watershed



Prepared for: Utom River Conservation Fund 1223 Wilshire Blvd. #776 Santa Monica, California 90403

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8 February 2023

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Cover Photographs: clockwise from upper left, *Prunus ilicifolia* in fruit, subalpine meadow on summit of Mount Pinos, *Helianthus inexpectatus* flower, and mouth of Utom River during January 2005 flood. Photos by David Magney.

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SECTION 1. INTRODUCTION

The Santa Clara (Utom) River watershed is located within northern Ventura County and northwestern Los Angeles County, with small areas of southern Kern and eastern Santa Barbara Counties included. Utom is the Chumash name for the Santa Clara River and translates basically to phantom, referring to the appearance and disappearance of surface flows on the mainstem of the river. In recognition of the indigenous peoples of this area and their heritage, the colonial name, Santa Clara River, will be replaced in this report with the Chumash name, Utom River.

This study is intended to provide a detailed summary of the botanical resources of the Utom River watershed that will support the conservation of these resources and appropriate land use decisions made within and adjacent to the watershed. These resources are unique and of great importance to the indigenous peoples (Chumash and Tatavian) that originally occupied this territory and those that have arrived subsequently, and to the botanical scientific community and conservation organizations such as the California Native Plant Society (CNPS), Wishtoyo Foundation, Center for Biological Diversity (CBD), Santa Ynez Band of the Chumash, and others.

The watershed encompasses 2,023,358 acres (818,842 hectares). It ranges in elevation from sea level at the mouth of the Utom River to 8,831 feet at the summit of Mount Piños on the Ventura-Kern County line. The bounds of the watershed are delineated on Figure 1, General Location Map of the Utom River Watershed.

The watershed was divided into a total of fifty-four (54) bioregions based primarily on logical geographic features, such as valleys, canyons, plains, hills, ridges, and mountains, with the boundaries of the bioregions illustrated on Figure 2, Map of Floristic Bioregions of the Utom River Watershed. Names for each bioregion were assigned based on the most prominent geographic feature of that delineated area. A description of each bioregion, including land use, geology, geography, climate, and floristics, is provided below. The bioregions at the edges of the watershed may, and often do, extend beyond the actual boundary of the Utom River watershed.

This report provides a description of the biogeography of the watershed and its flora for use by the Utom River Conservation Fund (Fund) and public for research and conservation purposes.

This project was funded through grants from the Fund, which is overseen by four partners: CNPS, CBD, Wishtoyo Foundation, and Santa Ynez Band of the Chumash. The fund is managed by the 7th Generation Foundation on behalf of the Fund.









SECTION 2. METHODS

This section describes the field and office-based methods CNPS used to document the botanical resources of the Utom River watershed.

Conventions

Taxonomic nomenclature generally follows that of Jepson eFlora version (UC/JEPS 2023), or focused taxonomic research published subsequently or in addition to the Jepson eFlora.

Geographic bioregions developed for the study of the Utom River watershed follow Magney's (2011) approach for the Ventura County Flora project and extending/expanding those into the Los Angeles County portion of the watershed. Using this approach, 54 bioregions were delineated and used to track plant observations accordingly.

Occurrences equate to unique observations, but populations are determined by the distance between specific occurrences, generally following the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB) approach to defining rare plant occurrences (i.e., populations) as being distinct if they are at least ¹/₄ mile apart.

Literature Survey

The Jepson Manual: Higher Plants of California (Baldwin et. al 2012), Jepson eFlora UC/JEPS 2023, the *Flora of the Liebre Mountains* (Boyd 1999), *A Flora of the Santa Barbara Region, California* (Smith 1998), and *Flora of Ventura County* manuscript (Magney 2021) were used to identify various taxa found at one or more of the watersheds. Also, botanist colleagues and taxonomic experts were consulted regarding identification of select taxa.

The plant communities of the 54 bioregions were classified according to CDFW's/CNPS's *A Manual of California Vegetation [Manual]* (Sawyer et al. 2009), which follows the National and International Vegetation Classification systems. However, the CNPS team also identified additional alliances and associations of plant species that are not currently described by Sawyer et al. (2009) but occurred consistently across the management units. These currently undescribed "alliances" are presented in this report as well, based on criteria and methods CDFW and CNPS used to develop the second edition of the *Manual*, and will be considered for inclusion in future editions (J. Evans pers. comm.¹).

Sawyer et al. (2009) recognize on Pages 30 and 31 that their description on grassland (herbland) alliances and associations are still not well understood, and that a substantial amount of work still needs to be done before California herblands can be adequately described and understood, which is currently part of CNPS's California grasslands assessment initiative project². The *Manual* states on Page 31 that it will "begin to report the grassland variation in this edition based on

¹ Julie Evans, CNPS Vegetation Program Director, personal communication (email) 13 May 2010 regarding acceptability of naming new, undescribed, vegetation alliances.

² David Magney is a member of the CNPS Vegetation Committee and part of the Grasslands Assessment Initiative.



recent studies". Since large areas of watershed are dominated by herblands that have not been studied much by vegetation ecologists, and that annual herblands in California are still poorly described and understood, it is no surprise that many new plant associations are present in the watershed and other large areas in the region.

Database Surveys

Existing databases were searched to determine the known and reported occurrences of all vascular and nonvascular plants known to occur in the watershed, as well as documented occurrences of special-status species.

CNPS obtained data downloads of all voucher specimens that have been entered into the Consortium of California Herbaria (CCH) database for the entire state of California, and then parsed that dataset for those vouchers that were from within the watershed and created a Geographic Information System (GIS) geodatabase using ArcGIS Catalogue, to create one GIS layer for all these records. Since the resulting geodatabase is too large to facilitate rapid access, it was divided into four separate GIS layers, grouping taxa alphabetically by genus into layers: A-C, D-J, K-P, and Q-Z.

CNPS conducted a search of the CNDDB RareFind5 (CDFW 2018, 2020) for the watershed and surrounding areas to identify which special-status species have been previously reported from the watershed.

CNPS also conducted a literature/database search of CNPS' Inventory of Rare and Endangered Plants of California (CNPS 2018, 2020), Flora of Ventura County, California: Annotated Catalogue of Vascular Plants (Magney 2021), Flora of Dry Lakes Ridge, Ventura County, California (Magney 1986), Vascular Flora of the Liebre Mountains, Western Transverse Ranges, California (Boyd 1999), and the Flora of Kern County, California (Twisselmann 1967) to account for other special-status plant species not tracked by CNDDB with potential to occur in the vicinity of the proposed project site.

A search of CNDDB records for the watershed yielded 40 special-status plant species. Several of these are federally listed, including: *Astragalus pycnostachyus* var. *lanosissimus* (Ventura Marsh Milkvetch), *Berberis nevinii* (Nevin's Barberry), *Chloropyron maritimum* ssp. *maritimum* (Salt Marsh Bird's-beak), *Eremalche parryi* ssp. *kernensis* (Kern Mallow), and *Eriogonum kennedyi* var. *austromontanum* (Southern Mountain Buckwheat).

Several plants are also state-listed Endangered, Threatened, or Rare and occur in the watershed, including: *Chorizanthe parryi* var. *fernandina* (San Fernando Valley Spineflower), *Deinandra minthornii* (Santa Susana Tarplant), *Eriogonum crocatum* (Conejo Buckwheat), and *Thermopsis macrophylla* (California Falselupine).

The CCH and the Calflora online databases were consulted on numerous occasions for several purposes, including:

- determining which taxa have been collected previously from the watershed;
- determining the relative rarity/commonness of taxa found onsite but not previously reported from the watershed; and
- determining the known distribution of selected taxa.



The CNDDB was consulted on numerous occasions for several purposes, including:

- determining the known distribution of sensitive species; and
- identifying historical occurrences of sensitive species, in an effort to update those occurrences.

Field Survey Methods

CNPS botanists/ecologists performed floristic field surveys during the spring, summer, and/or fall months of 2017, 2018, 2019, 2020, 2021, and 2022 to identify and detect as many plant species as possible in each of the 54 bioregions of the Utom River watershed. Field observations and voucher collections by David Magney prior to 2018 were also included. Each bioregion was visited to account for as many plant species as possible onsite, using existing roads to provide primary access to as much of each management unit as possible. Areas that had few or no voucher specimens were targeted for surveys. Surveys were timed to coincide with the entirety of the spring, summer, or fall bloom times. Areas that were surveyed early were re-visited to identify later blooming species as often as possible. Not all bioregions were surveyed equally due to limitations with access and available field time.

Table 1, Bioregion Survey Dates and Botanists Names, lists the dates field surveys were conducted and includes the name of the botanist(s) that conducted those surveys and which bioregions were surveyed. Surveys generally started at lower elevations and moved upslope as time went on in order to follow the peak blooming season. Surveys conducted prior to initiation of this study were included where data were made available.

Date	Bioregion	Botanist(s)
14 October 2017	Gold Hill, Alamo Mountain	David Magney
6 November 2017	Santa Clara River Valley	David Magney
30 March 2018	Santa Paula Canyon	David Magney
17 May 2018	Santa Clara River Valley	David Magney
19 May 2018	Ventura Hills	David Magney
20 June 2018	Dry Lakes Ridge	David Magney
1 November 2018	Santa Paula Canyon	David Magney
5 November 2018	Hungry Valley	David Magney
29 March 2019	Middle Sespe Creek	David Magney, Elizabeth Kubey
7 May 2019	Middle Sespe Creek	David Magney
8 May 2019	Santa Paula Canyon	David Magney, Rachelle Gray
10 May 2019	Santa Clara River Valley	David Magney
14-15 May 2019	Santa Clara River Valley (Hasley Cyn)	Seth Kauppinen
15 May 2019	Santa Susana Mountains (Lyons Cyn)	Seth Kauppinen
1 June 2019	Whitaker Peak	Seth Kauppinen
2 June 2019	Middle Piru Creek	Seth Kauppinen
3 June 2019	Pine Mountain Ridge, Dry Lakes Ridge, Rose Valley	David Magney
4 June 2019	Santa Susana Mountains	David Magney, Seth Kauppinen
5 June 2019	Whitaker Peak, Middle Piru Creek	David Magney, Seth Kauppinen
6 June 2019	Sierra Pelona, San Gabriel Mountains	David Magney, Seth Kauppinen
17 July 2019	Frazier Mountain	David Magney
18 July 2019	Frazier Mountain	David Magney, Seth Kauppinen

Table 1. Bioregion Survey Dates and Botanists Names

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Date	Bioregion	Botanist(s)
19 July 2019	Frazier Mountain	David Magney, Seth Kauppinen
20 July 2019	Frazier Mountain	David Magney, Seth Kauppinen, Helen Sweany, Maria Christensen
31 July 2019	San Guillermo Mountain	David Magney, Seth Kauppinen, Annie Zell
1 August 2019	San Guillermo Mountain	David Magney, Seth Kauppinen, Annie Zell
2-3 August 2019	Alamo Mountain	David Magney, Seth Kauppinen, Annie Zell
4 August 2019	Alamo Mountain	David Magney, Seth Kauppinen, Annie Zell, Connor MacNab, David Pluenska, Emma Lewis, Becca Cosmero
5 August 2019	Alamo Mountain	David Magney, Seth Kauppinen, Annie Zell, Helen Sweany, Maria Elena Christensen, James Adams, Enrique Villaseñor
4 October 2019	Santa Clara River Valley, Santa Susana Mountains	David Magney
7 October 2019	Mount Pinos	David Magney
7 November 2019	Mount Pinos	David Magney
12 December 2019	Upper Sespe Creek	David Magney
20 April 2020	Parker Mountain, Acton Valley	Jonathon Holguin
12-16 May 2020	Middle Sespe Creek	David Magney, Adam Hoeft, Angela Pai
3-4 June 2020	Upper Piru Creek	David Magney
4 June 2020	Santa Paula Canyon	David Magney, David Torfeh
5-6 June 2020	Upper Piru Creek	David Magney, David Torfeh
16-18 June 2020	Upper Piru Creek	David Magney, Angela Pai, Kendra Sikes
19 June 2020	Upper Piru Creek, San Guillermo Mountain	David Magney
7-8 July 2020	Upper Piru Creek	David Magney
9 July 2020	Pine Mountain Ridge	David Magney, Connie Rutherford
28 July 2020	San Guillermo Mountain	David Magney, Adam Hoeft
29-30 July 2020	Mount Pinos	David Magney, Adam Hoeft
28 October 2020	Santa Clara River Valley, Santa Susana Mountains	David Magney
23 February 2021	Ventura Hills	David Magney, Adam Hoeft, Jonathon Holguin
23 February 2021	Santa Clara River Valley	David Magney
24 February 2021	Whitaker Peak, Lower Middle Piru Creek	David Magney, Adam Hoeft, Jonathon Holguin
25 February 2021	Santa Clara River Valley, Whitaker Peak	David Magney, Adam Hoeft, Jonathon Holguin
26 February 2021	Red Mountain, Warm Springs Mountain	David Magney
5 April 2021	Santa Paula Canyon	Phil Davis
5 April 2021	Gold Hill, Hungry Valley	David Magney, Jonathon Holguin
6 April 2021	Gold Hill	David Magney, Jonathon Holguin
7 April 2021	Whitaker Peak (Hawthaway Ranch)	David Magney, Adam Hoeft, Jonathon Holguin
8 April 2021	Frazier Mountain, Gold Hill	David Magney, Adam Hoeft, Jonathon Holguin
20 April 2021	Nordhoff Ridge, Sulphur Mountain, Topatopa Mountains, Santa Paula Canyon, Santa Susana Mountains	David Magney
21 April 2021	Whitaker Peak	David Magney, Adam Hoeft, Jonathon Holguin
22 April 2021	Red Mountain, Sawmill Mountain	David Magney
22 April 2021	Agua Blanca Creek, Whiteacre Peak Ridge	Jonathon Holguin
23 April 2021	Sawmill Mountain	David Magney, Jonathon Holguin
17 May 2021	Pine Mountain Ridge	David Magney, Adam Hoeft, Jonathon Holguin
18 May 2021	Santa Paula Canyon	David Magney, Sheri Mayta
19 May 2021	Lower Sespe Creek	David Magney, Adam Hoeft, Jonathon Holguin
8 June 2021	Sawmill Mountain	David Magney
9-10 June 2021	Sawmill Mountain	David Magney, Mike Abi-Farah
11 June 2021	Soledad Canyon	David Magney

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Date	Bioregion	Botanist(s)
22 June 2021	Topatopa Mountains	David Magney
23 June 2021	Nordhoff Ridge, Upper Sespe Creek	David Magney
25 June 2021	Rose Valley	David Magney
13 July 2021	Mount Pinos	David Magney
14 July 2021	Mount Pinos, Nordhoff Ridge	David Magney, Adam Hoeft
15 July 2021	Upper Piru Creek	David Magney
18 August 2021	Mount Pinos	David Magney, Adam Hoeft, Jonathon Holguin, Connie Rutherford, Mike Abi-Farah
19 August 2021	Mount Pinos	David Magney, Adam Hoeft, Jonathon Holguin, Mike Abi-Farah
20 August 2021	Mount Pinos	David Magney
7 April 2022	Liebre Mountain	David Magney, Jordan Collins
8 April 2022	Whitaker Peak	David Magney, Jordan Collins
18 April 2022	Peace Valley, Sawmill Mountain, Warm Springs Mountain, Red Rock Mountain	David Magney
18 April 2022	Bald Mountain	Jordan Collins
19 April 2022	Soledad Canyon, Castaic Valley, Mint Canyon	Jordan Collins, Betsy Lockhart
20 April 2022	Warm Springs Mountain	Jordan Collins
21 April 2022	Sawmill Mountain, Whitaker Peak, Lower Middle Piru Creek	Jordan Collins, Betsy Lockhart
22 April 2022	Portal Ridge, Sawmill Mountain	Jordan Collins
3-5 May 2022	Del Sur Ridge	Jordan Collins
7 May 2022	Middle Sespe Creek, Upper Sespe Creek	David Magney
16 May 2022	Del Sur Ridge	Jordan Collins
17-18 May 2022	Bald Mountain	Jordan Collins
19 May 2022	Santa Paula Canyon	David Magney, Jordan Collins
20 May 2022	Bouquet Canyon	David Magney
20 May 2022	Bald Mountain	Jordan Collins
31 May 2022	Bald Mountain	Jordan Collins
1 June 2022	Del Sur Ridge	Jordan Collins
2-3 June 2022	Bald Mountain	Jordan Collins
12-13 June 2022	Sawmill Mountain	David Magney
13 June 2022	Bald Mountain	Jordan Collins
14 June 2022	Bouquet Canyon, San Francisquito Canyon, Sawmill Mountain	David Magney
14 June 2022	Warm Springs Mountain	Jordan Collins
15 June 2022	Sawmill Mountain	David Magney
15 June 2022	Warm Springs Mountain, Redrock Mountain	Jordan Collins
16 June 2022	Sawmill Mountain	David Magney
16 June 2022	Warm Springs Mountain, Castaic Valley	Jordan Collins
17 June 2022	Bald Mountain	David Magney
17 June 2022	Warm Springs Mountain	Jordan Collins
12 July 2022	Peace Valley	David Magney
14 July 2022	Mount Pinos	David Magney, Bryant Baker
26 July 2022	Warm Springs Mountain	Jordan Collins
27 July 2022	Sawmill Mountain, Redrock Mountain	Jordan Collins
28 July 2022	Redrock Mountain, Sawmill Mountain	Jordan Collins
29 July 2022	Ridge Route Ridge	Jordan Collins
8 August 2022	Ridge Route Ridge	Jordan Collins
9 August 2022	Red Rock, San Francisquito Canyon	Jordan Collins
10 August 2022	Mount Pinos, Bald Mountain	Jordan Collins

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Date	Bioregion	Botanist(s)
11 August 2022	Castaic Valley, Redrock Mountain	Jordan Collins
12 August 2022	Del Sur Ridge	Jordan Collins
15 August 2022	Sawmill Mountain	David Magney
16 August 2022	Mount Pinos, Lockwood Valley	David Magney
18 August 2022	Topatopa Mountains	David Magney
19 August 2022	San Guillermo Mountain	David Magney
22 August 2022	Lower Middle Piru Creek, Ridge Route Ridge	Jordan Collins
23 August 2022	Liebre Mountain	Jordan Collins
24 August 2022	San Francisquito Canyon, Del Sur Ridge	Jordan Collins
25 August 2022	Ridge Route Ridge, Liebre Mountain	Jordan Collins
26 August 2022	San Francisquito Canyon	Jordan Collins
12 September 2022	Whitaker Peak	Jordan Collins, Avery Hansen
13 September 2022	Red Mountain, Bouquet Canyon, Del Sur Ridge	Jordan Collins, Avery Hansen
14 September 2022	Redrock Mountain	Jordan Collins, Avery Hansen
15 September 2022	Red Mountain	Jordan Collins, Avery Hansen
16 September 2022	Redrock Mountain	Jordan Collins, Avery Hansen
27 September 2022	Liebre Mountain, Ridge Route Ridge	Jordan Collins
28-30 September 2022	Sawmill Mountain	Jordan Collins
1-2 November 2022	Upper Middle Piru Creek	Jordan Collins
3 November 2022	Sawmill Mountain	Jordan Collins

Global Positioning System (GPS) units and Apple iPads were carried to track footpaths and to mark survey waypoints. Figure 2, Map of Floristic Data Points of the Utom River Watershed, contains all the waypoints taken by David Magney, Seth Kauppinen, Adam Hoeft, Jonathon Holguin, Jordan Collins, Angela Pai, Kendra Sikes, Annie Zell, and volunteers, as well as CCH, Calflora, and NRIS observation/voucher records through November 2022. A total of 39,847 CCH/Calflora/NRIS records were used. The map provides a general idea of which areas of each bioregion were surveyed by botanists to date.

CNPS staff and volunteers spent 146 days between late 2017 and late 2022, for a total of 200person field days. David Magney sampled approximately 630 waypoints that included 8,830 plant observations. Adam Hoeft sampled approximately 123 waypoints that included about 1,913 plant observations. Jonathon Holguin sampled approximately 150 waypoints that included about 1,799 plant observations. Seth Kauppinen sampled approximately 9 waypoints that included about 62 plant observations. Jordan Collins sampled approximately 263 waypoints that included about 6,063 plant observations. Kendra Sikes sampled 28 waypoints, all to characterize the natural vegetation. A number of waypoints and observations were made by two or more team members but are included in the individual person's statistics.

A total of 1,172 observation waypoints were taken during the CNPS field surveys, representing 18,779 plant records. Observations and vouchers by others not part of this study include about 20,342 records.

Waypoints were established for each site where floristic data were gathered and correspond to checklists in each botany team's field notes. Waypoints were established in a non-random fashion to provide samples of various plant species and plant associations observed by the botany teams in the field. Survey effort (number of waypoints per unit area) was variable from location to location. Likewise, the area surveyed at each waypoint was variable, but in general, a circle with a diameter of approximately 30 feet/10 meters was surveyed at each waypoint. New



waypoints were established when a new taxon (one not recorded from that area that day or prior) was observed and/or the vegetation or substrated conditions changed significantly from previous waypoints.

All vascular plants observed within each survey point were recorded and dominant species (visually estimated by cover) were noted. Nonvascular plants were also noted. Any species collected as herbarium voucher specimens, collected for identification and verification, were also recorded. Voucher specimens were collected from each of the 54 bioregions, with the specimens being deposited into the herbaria at the University of California at Santa Barbara (UCSB), Robert F. Hoover Herbarium at Cal Poly San Luis Obispo (OBI), and University of California at Davis (DAV), with the intent of having representative physical specimens from each of the bioregion whenever possible. Dominant, associated, and vouchered species for each waypoint are included in the Utom River Watershed Matrix Table (Appendix A) and the associated geodatabase.

A total of 2,358 voucher specimens were collected for this study, with David Magney collecting 854 vouchers, Jordan Collins collecting 1,165 vouchers, Adam Hoeft collecting 42 vouchers, Jonathan Holguin collecting 51 vouchers, and Seth Kauppinen collecting 23 vouchers.

Voucher specimens collected by others not part of this study were identified by using botanical reference manuals (Baldwin et al. 2012, Moe & Twisselmann 1995, and the Calflora online application). Photographs of the specimens were sometimes sent to experts on specific plant groups for further identification or verification. Not all voucher specimens were so treated, and a small number of specimens collected are undetermined as to identity.

Photographs were taken at most survey waypoints, with many of the species observed photographed with a digital camera, cell phone, or iPad. Photographs of general habitat conditions were also taken at most waypoints.

Many botanists have conducted botanical surveys of portions of the watershed since the late 1880s based on a large number of voucher specimens deposited into one or more public herbaria.

CNPS botanists observed 37 species that were previously unrecorded within the Utom River watershed.





Figure 2. Map of Floristic Data Points of the Utom River Watershed and Property Ownership

Each point on the map above represents one or more observations and/or voucher collections. The triangles represent CNPS staff observations and/or vouchers made for this study.



SECTION 3. BOTANICAL RESOURCES

The botanical resources of the project site include the flora and plant communities occupying the Utom watershed, including special-status species and sensitive habitats. This section includes an overview of the watershed's flora, special-status species, plant communities/vegetation types, and a summary of each of the fifty-four (54) bioregions that the watershed has been divided into.

FLORA

Including CNPS's surveys and previous floristic surveys, a total of 2,356 vascular plant species³ have been recorded within the watershed. CNPS observed 1,294 taxa during 2017-2022. Thirty-seven (37) of these were species that were previously unrecorded in the watershed.

Appendix A, Plant Species Observed in the Utom River Watershed, contains a table that lists the 2,356 plants occurring in the watershed and how many times each taxon was recorded in the watershed and within each bioregion. Of the 2,356 vascular plant taxa documented as occurring within the watershed, 1,894 (80.4%) are native and the remaining 462 (19.6%) are introduced naturalized species. This is a slightly higher ratio of native to non-native plants compared to the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012). Many of the watershed bioregions have much higher native to nonnative ratios.

CNPS staff made 18,779 observations (some that included vouchers) for the 54 bioregions, cumulatively, that were not supported by a previous CCH record. CNPS staff did not observe every taxon previously reported as occurring within the watershed. Some were not detected due to seasonality, and some may have been extirpated from the watershed. Finding these taxa will require additional study.

Over the entire watershed, an average of 15.5 taxa were observed at each floristic observation waypoint.

When compared to other floras, such as those for countywide floras in California, and with other states, the Utom River watershed, in terms of taxa count, ranks 7th behind San Bernardino, Ventura, San Diego, Los Angeles, Riverside, and Lake Counties (listed in order of ranking), and 44th compared to states. In area, compared to the same set of jurisdictions, the watershed ranks 49th, larger than Rhode Island.

The twenty-five largest families are listed below in Table 2, Twenty-five Largest Plant Families in the Utom Watershed, with Asteraceae, Poaceae, Fabaceae, Polygonaceae, and Polemoniaceae leading the pack.

³ "Taxa" here includes subspecies, varieties, and hybrids.



Family	Number of Taxa	Percent of Flora	Largest Genus
Asteraceae	321	13.5%	<i>Ericameria</i> (18 taxa)
Poaceae	191	8%	Bromus (20)
Fabaceae	142	6%	Lupinus (40)
Polygonaceae	113	5%	Eriogonum (59)
Polemoniaceae	98	4.1%	Gilia (35)
Brassicaceae	83	3.5%	Lepidium (18)
Onagraceae	75	3.2%	Clarkia (17)
Boraginaceae	67	2.8%	Cryptantha (34)
Chenopodiaceae	61	2.6%	Atriplex (21)
Hydrophyllaceae	58	2.4%	Phacelia (43)
Lamiaceae	56	2.4%	Monardella (13)
Cyperaceae	55	2.3%	<i>Carex</i> (22)
Plantaginaceae	54	2.3%	Penstemon (16)
Apiaceae	45	1.9%	Lomatium (11)
Rosaceae	45	1.9%	Prunus (7)
Orobanchaceae	37	1.6%	Castilleja (18)
Ranunculaceae	35	1.5%	Delphinium (14)
Phrymaceae	31	1.3%	Diplacus (13)
Malvaceae	30	1.3%	Malva (8)
Caryophyllaceae	29	1.2%	Silene (12)
Convolvulaceae	28	1.2%	Calystegia (15)
Juncaceae	27	1.1%	Juncus (27)
Rhamnaceae	25	1.1%	Ceanothus (18)
Liliaceae	22	0.9%	Calochortus (15)
Montiaceae	22	0.9%	Claytonia (9)

Table 2. Twenty-five Largest Plant Families in the Utom Watershed

The genera with at least 20 species or subspecies/varieties are listed in order of decreasing number:

Eriogonum - 59 Phacelia - 43 Lupinus - 40 Gilia - 35 Cryptantha - 34 Juncus - 27 Astragalus - 23 Carex - 23 Allium - 21 Atriplex - 21 Bromus - 21 Acmispon - 20

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These statistics generally mimic that for the California flora as a whole⁴, and unsurprisingly, the Ventura County flora (Magney 2021). The top five genera in Ventura County are: *Eriogonum*, *Lupinus*, *Phacelia*, *Astragalus*, and *Gilia*.

SPECIAL-STATUS PLANT SPECIES

Special-status plant species are defined in this report as those listed by the state or federal governments (CDFW 2021) or in the *Inventory of Rare and Endangered Plants of California* (California Native Plant Society [CNPS] 2001, 2021). Of the vascular plants that were identified as occurring in the watershed, 151 are special-status species, listed by CNPS (2021) and are also tracked by the California Department of Fish and Wildlife's Natural Diversity Database (CNDDB)⁵. Ten (10) vascular plant taxa are federally endangered:

- Astragalus brauntonii, Braunton's Milkvetch, Federally Endangered
- Astragalus pycnostachyus var. lanosissimus, Ventura Marsh Milkvetch, Federally Endangered
- Berberis nevinii, Nevin's Barberry, Federally Endangered
- Chloropyron maritimum ssp. maritimum, Saltmarsh Bird's-beak, Federally Endangered
- Dodecahema leptoceras, Slender-horned Spineflower, Federally Endangered
- *Eremalche parryi* ssp. *kernensis*, Kern Mallow, Federally Endangered
- *Eriogonum kennedyi* var. *austromontanum*, Southern Mountain Buckwheat, Federally Threatened
- *Navarretia fossalis*, Spreading Navarretia, Federally Threatened
- Orcuttia californica, California Orcutt Grass, Federally Endangered, and
- Suaeda californica, California Seablite, Federally Endangered.

Nine (9) vascular plant taxa are state listed:

- Astragalus pycnostachyus var. lanosissimus, Ventura Marsh Milkvetch, California Endangered
- Berberis nevinii, Nevin's Barberry, California Endangered
- Chloropyron maritimum ssp. maritimum, Saltmarsh Bird's-beak, California Endangered
- Chorizanthe parryi var. fernandina, San Fernando Valley Spineflower, California Endangered
- Deinandra minthornii, Santa Susana Tarplant, California Rare
- Dodecahema leptoceras, Slender-horned Spineflower, California Endangered
- Eriogonum crocatum, Conejo Buckwheat, California Rare
- Orcuttia californica, California Orcutt Grass, California Endangered, and
- *Thermopsis macrophylla* var. *macrophylla*, False-lupine, California Rare.

Special-status plant species are plants that are listed by the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), and/or CNPS. CNPS has developed lists of rare plants native to California that are rare statewide and included in its *Inventory of Rare and Endangered Plants of California* (CNPS 2021), and locally rare plants for

⁴ Jepson Flora Project:

⁵ Not all special-status species tracked by CNPS are mapped by the CNDDB; however, the CNDDB maintains paper files for those not yet mapped, with the intention of mapping occurrences with funding becomes available.



selected areas of the state (Lake 2004, Magney 2009-2022, Wilken 2007, Magney 2020). CNPS ranks rare plants based on degree of rarity on five statewide rare plant lists: 1A, 1B, 2B, 3, and 4.

One hundred fifty-one (151) special-status plant species were directly observed or reported within the watershed. Table 3, Special-status Plant Species in the Utom River Watershed, provides a complete list of the special-status plant species observed by CNPS during the survey period, or previously observed by others. Links to the <u>CNPS Online Inventory</u> wepage for each taxon are hyperlinked in Table 3 below. Figure 3, General Locations of Special-status Plants in the Utom River Watershed, shows the locations of all special-status plants in the watershed.

Status: Federal/State/CNPS	Scientific Name	Common Name	Bioregion(s)
None/None/CNPS 4.2	Abronia maritima	Red Sand-verbena	SCR, OP
None/None/CNPS 4.2	Acanthomintha lanceolata	Lanceleaf Thornmint	SGM
None/None/CNPS 1B.2	Acanthomintha obovata ssp. cordata	Heartleaf Thornmint	MP, OV, FM, SGM, RRR, Su
None/None/CNPS 1B.2	Acanthoscyphus parishii var. abramsii	Abrams Spineflower	MP, LV, PMR, TTM
None/None/CNPS 4.2	Acanthoscyphus parishii var. parishii	Parish Oxytheca	PMR
None/None/CNPS 1B.1	Acmispon prostratus	Nuttall's Lotus	S1
None/None/CNPS 1B.3	Allium howellii var. clokevi	Mount Pinos Onion	MP, OV, SGM, PMR, Sm, CV, RM
None/None/CNPS 4.3	Allium howellii var. howellii	Howell's Onion	FM, LV
None/None/CNPS 4.2	Amsinckia douglasiana	Douglas Fiddleneck	PMR, Su, Sm, CV, SP, MintC, PM, SolC
None/None/CNPS 1B.2	Aphyllon validum ssp. validum	Rock Creek Broom-rape	ТТМ
FE/None/CNPS 1B.1	Astragalus brauntonii	Braunton's Milkvetch	SSM
None/None/CNPS 1B.2	Astragalus lentiginosus var. sierrae	Bear Valley Milkvetch	LV, FM, SGM, PMR
None/None/CNPS 1B.2	Astragalus leucolobus	Bear Valley Woollypod	MP, FM
None/None/CNPS 4.3	Astragalus macrodon	Salinas Milkvetch	MP, PorR
FE/SE/CNPS 1B.1	Astragalus pycnostachyus var. lanosissimus	Ventura Marsh Milkvetch	SCR, OP
None/None/CNPS 4.2	<u>Atriplex coronata var. coronata</u>	Crownscale	PorR
None/None/CNPS 1B.2	<u>Atriplex serenana var. davidsonii</u>	Davidson's Bractscale	SCR, OP
None/None/CNPS 4.3	<u>Baccharis plummerae ssp.</u> plummerae	Plummer's Baccharis	NR, SM, SPC, SPR, VH, M
FE/SE/CNPS 1B.1	Berberis nevinii	Nevin's Barberry	SFC
None/None/CNPS 4.2	Calandrinia breweri	Brewer Calandrinia	Sm, NR
None/None/CNPS 4.2	Calochortus catalinae	Catalina Mariposa Lily	DLR, NR, SM, SPR, VH, SCR, OP, SSM, SGabM
None/None/CNPS 4.3	<u>Calochortus clavatus var. clavatus</u>	Club-haired Mariposa Lily	MP, HV, PV, LM, AM, Pum, ABC, Plm, WP, CV, WSM, RM, SFC, BC, SP, NR, TTM, SM, WPR, Pl, MintC, SadM, PM, AV, VH, SCR, SolC, SSM
None/None/CNPS 1B.2	<u>Calochortus clavatus var. gracilis</u>	Slender Club-haired Mariposa Lily	LM, PorR, RRR, Plm, WP, CV, RM, SFC, DSR, SP, Pl, MintC, PM, SolC, SSM, SGabM
None/None/CNPS 1B.2	<u>Calochortus fimbriatus</u>	Late-flowered Mariposa Lily	MP, OH, DLR, NR, TM, SM, SPR, WPR
None/None/CNPS 1B.2	<u>Calochortus palmeri var. palmeri</u>	Palmer Mariposa Lily	FM, PMR, AM, Su, Sm, SFC, BC, SP
None/None/CNPS 1B.2	<u>Calochortus plummerae</u>	Plummer Mariposa Lily	SoIC, SSM, SGabM
None/None/CNPS 1B.1?	Calochortus rustvoldii	Rustvold Mariposa Lily	WPR, SGabM
None/None/CNPS 4.2	Calystegia peirsonii	Peirson's Morning-glory	LM, PorR, RRR, RRM, SawM, Plm, WP, CV, WSM, RM, SFC, DSR, BC, SP, MintC, SadM, PM, SolC, SSM, SGabM

Table 3.	General I	ocations	of Spec	ial-status	Plant S	necies in	the I	Utom R	River V	Watershed
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Status:		~	
Federal/State/CNPS	Scientific Name	Common Name	Bioregion(s)
None/None/CNPS 4.2	Canbya candida	White Pygmy-poppy	
None/None/CNPS 1B.2	<u>Castilleja gleasonii</u>	Mount Gleason Paintbrush	LM, SP, SolC, SGabM
None/None/CNPS 1B.2	Caulanthus lemmonii	Lemmon Jewelflower	MP, DLR
None/None/CNPS 4.3	Ceanothus megacarpus var. insularis	Island Ceanothus	SFC
None/None/CNPS 4.3	Cercocarpus betuloides var. blancheae	Island Mountain Mahogany	SCR, SSM, SGabM
None/None/CNPS 1B.1	Chaenactis glabriuscula var. orcuttiana	Woolly Yellow Pincushion	SCR, SGabM
FE/SE/CNPS 1B.1	Chloropyron maritimum ssp. maritimum	Saltmarsh Birds-beak	SCR, OP
None/None/CNPS 1B.3	Chorizanthe blakleyi	Blakley's Spineflower	PMR
None/None/CNPS 1B.3	<u>Chorizanthe breweri</u>	Brewer's Spineflower	WSM
None/None/CNPS 4.3	Chorizanthe douglasii	Douglas Spineflower	SPR
None/None/CNPS 1B.1	<u>Chorizanthe parryi var. parryi</u>	Parry Spineflower	SP, VH
None/SE/CNPS 1B.1	Chorizanthe parryi var. fernandina	San Fernando Valley Spineflower	PorR, CV, SCR
None/None/CNPS 4.2	Chorizanthe spinosa	Mojave Spineflower	PorR
None/None/CNPS 4.2	Clinopodium mimuloides	Monkeyflower Yerba Buena	TTM, WPR, SGabM, RRM, SawM
None/None/CNPS 4.2	Convolvulus simulans	Small-flowered Morning-glory	SSM
None/None/CNPS 1B.2	Cryptantha clokeyi	Clokey's Forget-Me-Not	SawM, SP, SGabM
None/None/CNPS 4.3	Cryptantha rattanii	Rattan's Forget-Me-Not	Sm, DLR
None/SR/CNPS 1B.2	Deinandra minthornii	Santa Susana Tarplant	SSM
None/None/CNPS 4.2	Deinandra paniculata	Paniculate Tarplant	Pcl, SFC
None/None/CNPS 4.2	Delphinium gypsophilum ssp. gypsophilum	Gypsum Larkspur	LV
None/None/CNPS 1B.2	Delphinium parryi ssp. purpureum	Mount Pinos Larkspur	MP, LV, PorR, SGM, Pu, PMR, AM, Su, OH, Sm, BC, RV, NR, WPR, SolC
None/None/CNPS 1B.3	Delphinium umbraculorum	Umbrella Larkspur	PMR, TTM
None/None/CNPS 4.2	Dichondra occidentalis	Western Dichondra	OP
None/None/CNPS 4.3	Diplacus johnstonii	Johnston's Monkeyflower	Plm
FE/SE/CNPS 1B.1	Dodecahema leptoceras	Slender-horned Spineflower	SolC
	<u>Dudleya blochmaniae ssp.</u>		OP, SSM
None/None/CNPS 1B.1	<u>blochmaniae</u>	Blochman Live-forever	0.0
FT/None/CNPS 1B.1	<u>Dudleya verityi</u>	Verity's Dudleya	OP
None/None/CNPS 4.3	<u>Eleocharis parvula</u>	Small Spikerush	
None/None/CNPS 4.3	<u>Eriastrum sparsiflorum</u>	Great Basin Woollystar	LM, RM, BC, SolC
None/None/CNPS 4.3	<u>Eriogonum baileyi var. praebens</u>	Bailey's Woolly Buckwheat	BM
None/SR/CNPS 1B.2	<u>Eriogonum crocatum</u>	Conejo Buckwheat	SSM
None/None/CNPS 4.3	<u>Eriogonum elegans</u>	Elegant Buckwheat	LV, PMR, Sm
None/None/CNPS 1B.3	<u>Eriogonum kennedyi var. alpigenum</u>	Alpine Kennedy Buckwheat	MP
ET/Mong/CNDS 1D 2	<u>Eriogonum kennedyi var.</u>	Southern Mountain	MP, LV, FM, SGM
r 1/holie/Chrs 1D.2	Eriogonum umbellatum var	Duckwiieat	MP LV SGM
None/None/CNPS 4.2	bahiiforme	Bay Buckwheat	
None/None/CNPS 4.3	Eriophyllum confertiflorum var. tanacetiflorum	Tansyleaf Golden Yarrow	MP, FM, GH, HV, Pu, SawM, PMR, WSM, PM
None/None/CNPS 4 3	Friophyllum jepsonii	Jepson Woolly Yarrow	TehM
None/None/CNPS 4 2	Ervsimum suffrutescens	Island Wallflower	OP
None/None/CNPS 4 3	Eschscholzia hypecoides	Gynsum Ponny	LV
None/None/CNPS 1R 1	Eschecholzia lammonii sep karnaneia	Teion Ponny	LV
None/None/CNPS 2 2	Fimbristylis thermalis	Hot-springs Fimbrictulis	LV
None/None/CNPS 4 3	Frasera neolecta	Pine Gentian	SGM, AM, RV, SolC
None/None/CNPS 4 2	Fritillaria agrestis	Stink Bells	LV, SGM
None/None/CNPC 1R 2	Fritillaria ojajensis	Oiai Fritillary	NR, TTM, SPC. SPR
None/None/CNPS 4 2	Fritillaria ninetorum	Pine Fritillary	MP, LV, FM



Status:			
Federal/State/CNPS	Scientific Name	Common Name	Bioregion(s)
None/None/CNPS 4.3	Galium cliftonsmithii	Santa Barbara Bedstraw	DLR
None/None/CNPS 4.3	<u>Gilia interior</u>	Slender-flowered Gilia	MP
None/None/CNPS 4.3	<u>Gilia latiflora ssp. cuyamensis</u>	Cuyama Gilia	MP, LV, LM, PorR, PMR
None/None/CNPS 4.2	<u>Harpagonella palmeri</u>	Palmer's Grapplinghook	RM, SFC, SP, SGabM
None/None/CNPS 1B.1	<u>Helianthus inexpectatus</u>	Newhall Sunflower	SCR
None/None/CNPS 1B.1	<u>Hesperocyparis forbesii</u>	Tecate Cypress	WSM, SP
None/None/CNPS 4.3	<u>Heuchera abramsii</u>	Abrams Alumroot	NR
None/None/CNPS 4.3	Heuchera caespitosa	Urn-flowered Alumroot	RV
None/None/CNPS 3.2	<u>Hordeum intercedens</u>	Vernal Barley	OP, SSM, Su
None/None/CNPS 4.3	Hulsea vestita ssp. gabrielensis	San Gabriel Hulsea	FM, AM, SolC, SGabM
None/None/CNPS 4.3	<u>Hulsea vestita ssp. parryi</u>	Parry's Sunflower	FM
None/None/CNPS 2.1	Imperata brevifolia	California Satintail	NR
None/None/CNPS 4.2	Juglans californica	Southern California Black Walnut	Pum, ABC, Plm, RM, SFC, BC, NR, TTM, SM, SPC, SI, WPR, VH, SCR, SSM, SGabM
None/None/CNPS 4.2	Juncus acutus ssp. leopoldii	Spiny Rush	WSM, SPC, SI, SCR, OP
None/None/CNPS 1B.2	<u>Juncus luciensis</u>	Santa Lucia Dwarf Rush	SGM
None/None/CNPS 4.2	<u>Lasthenia ferrisiae</u>	Ferris Goldfields	OP
None/None/CNPS 1B.1	Lasthenia glabrata ssp. coulteri	Rayless Goldfields	OP
None/None/CNPS 1B.1	<u>Layia heterotricha</u>	Pale-yellow Layia	MP, LV, SGM, Pu
None/None/CNPS 1B.2	<u>Lepechinia rossii</u>	Ross' Pitcher Sage	SawM, ABC, RM, Sl, WPR
None/None/CNPS 4.3	Lepidium virginicum var. robinsonii	Robinson Peppergrass	SGM
None/None/CNPS 1B.2	Leptosiphon pygmaeus ssp. pygmaeus	Pygmy Leptosiphon	PorR, RM
None/None/CNPS 4.3	Lessingia tenuis	Tenuous Lessingia	MP, LV, FM, SGM, Pu, PMR, AM, OP
None/None/CNPS 4.2	Lilium humboldtii ssp. ocellatum	Ocellated Humboldt Lily	SawM, PMR, ABC, WSM, NR, TTM, SPC, Sl, WPR, SGabM
None/None/CNPS 1B.2	Lonicera subspicata var. subspicata	Santa Barbara Honeysuckle	MintC, NR, PMR, SSM, SP, Su
None/None/CNPS 4.3	Lupinus albifrons var. johnstonii	Johnston Bush Lupine	MP, LV, PMR, TTM
None/None/CNPS 4.3	Lupinus elatus	Johnston Silky Lupine	MP, LV, FM, PMR, AM, SM, WPR
None/None/CNPS 1B.2	Malacothamnus davidsonii	Davidson's Bush-mallow	BC, Plm, Pcu, Su
None/None/CNPS 4.3	Malacothrix incana	Dunedelion	SCR
None/None/CNPS 4.3	Malacothrix phaeocarpa	Brown-fruited Dandelion	Su
None/None/CNPS 4.2	Malacothrix saxatilis var. saxatilis	California Cliff-aster	SP, SM, PM, SolC, SGabM
None/None/CNPS 1A	Malacothrix similis	Mexican Cliff-aster	OP
None/None/CNPS 1B.1	Malva assurgentiflora	Malva Rose	SCR, OP
None/None/CNPS 4.2	Microseris sylvatica	Sylvan Microseris	PorR, TehM
None/None/CNPS 4.3	Monardella australis ssp. cinerea	Gray Monardella	SGabM
None/None/CNPS 1B.2	Monardella australis ssp. occidentalis	Western Coyote Mint	PMR
None/None/CNPS 4.3	Monardella candicans	Sierra Monardella	MintC
None/None/CNPS 1B.3	Monardella hypoleuca ssp. hypoleuca	White-veined Monardella	NR
FS/None/CNPS 1B 3	Monardella linoides ssp. oblonga	Flax-leaved Covote Mint	MP, LV, FM, SGM, Pu, PMR, AM
None/None/CNPS 4 2	Mucronea californica	California Spineflower	LV, SSM
FT/None/CNPS 1R 1	Navarretia fossalis	Spreading Navarretia	SP
None/None/CNPS 1R 1	Navarretia ojajensis	Oiai Navarretia	NR, SM, SCR, SSM
None/None/CNDC 1D 2	Navarretia peninsularia	Baja Navarretio	, - , - , - ,
THORE/INDRE/CINFS ID.2		Paiute Mountain	SP
None/None/CNPS 1B.1	Navarretia setiloba	Pincushionplant	-
None/None/CNPS 4.3	Nemacladus gracilis	Slender Nemacladus	LV, RV
None/None/CNPS 1B 2	Nemacladus secundiflorus var robbinsii	Robbins' Nemacladus	LV, HV, PV, SGM, SP, SolC



Status:	Status:		
Federal/State/CNPS	Scientific Name	Common Name	Bioregion(s)
Nama (Nama (CNDC 1D 2		Chart isint Descentail	AV, BM, DSR, MintC, PV, SolC,
None/None/CNPS IB.2	Opunta basilaris var. brachyciaaa	Short-joint Beavertain	Pum
FE/CE/CNPS IB.I	<u>Opuntia basilaris var. treleasei</u>	Bakersfield Cactus	
FE/SE/CNPS 1B.2	Orcuttia californica	California Orcutt Grass	Sr DMD
None/None/CNPS 4.3	<u>Pentachaeta fragilis</u>	Fragile Pentachaeta	PMR
None/None/CNPS 4.2	Perideridia gairdneri ssp. gairdneri	Gairdner Yampah	MP
None/None/CNPS 4.3	<u>Perideridia pringlei</u>	Adobe Yampah	FM, LM, PorR, SP, SolC
None/None/CNPS 4.3	<u>Phacelia exilis</u>	Transverse Range Phacelia	MP, LV, FM, SGM, AM
None/None/CNPS 4 2	Phacelia hubbyi	Hubby Caternillar Phacelia	PorR, CV, RM, DLR, SM, SI, WPR PL SCR SSM
None/None/CNPS 4.3	Phacelia mohavensis	Mojava Phacelia	MP. FM. SGM. Pu
	Phacelia ramosissima yar	South Coast Branching	OP
None/None/CNPS 3.2	austrolitoralis	Phacelia	
None/None/CNPS 4.2	Piperia michaelii	Michael's Rein Orchid	PMR
None/None/CNPS 2.2	Pseudognaphalium leucocephalum	White Everlasting	LV, PMR, CV, DLR, NR, TTM, SPC
None/None/CNPS 4.2	Quercus durata var. gabrielensis	San Gabriel Oak	SGabM
None/None/CNPS 4.3	Quercus turbinella	Shrub Live Oak	PM, PV
None/None/CNPS 4.3	<u>Rhinotropis coronuta var. fishiae</u>	Fish Milkwort	Pum, ABC, Plm, NR, TTM, SM, SPC, SI, WPR, SCR, SSM
None/None/CNPS 4.2	Romneya coulteri	Coulter Matilija Poppy	PMR, Su, Sm, DLR, VH, SCR
None/None/CNPS 1B.2	Saltugilia latimeri	Latimer's Woodland-gilia	ТТМ
None/None/CNPS 2.2	Saussurea americana	American Sawwort	SCR
None/None/CNPS 2.2	<u>Senecio aphanactis</u>	California Groundsel	SCR
None/None/CNPS 2.2	<u>Sidalcea neomexicana</u>	Salt Spring Checkermallow	LV, PorR, AM
None/None/CNPS 4.3	Sidotheca caryophylloides	Chichweed Oxytheca	PMR
None/None/CNPS 1B.1	Solanum wallacei	Wallace's Nightshade	SPC
None/None/CNPS 4.2	Solidago guiradonis	Guirado Goldenrod	MP
None/None/CNPS 1B.3	<u>Streptanthus campestris</u>	Southern Jewelflower	SawM
None/None/CNPS 1B.1	Stylocline masonii	Mason's Neststraw	SolC
FE/None/CNPS 1B.1	<u>Suaeda californica</u>	California Seablite	SCR, OP
None/None/CNPS 1B.2	Suaeda esteroa	Estuary Seablite	OP
None/None/CNPS 4.2	Suaeda taxifolia	Woolly Seablite	SCR, OP
None/None/CNPS 1B.3	Symphyotrichum greatae	Greata's Aster	RRM, SGabM
None/None/CNPS 4.3	Syntrichopappus lemmonii	Lemmon's Xerasid	SP, PM, SolC
None/SR/CNPS 1B.3	Thermopsis macrophylla	False-lupine	DLR
None/None/CNPS 4.3	Trichostema micranthum	Small-flowered Bluecurls	SGM
None/None/CNPS 1B 3	Viola pinetorum ssp. grisea	Grav-leaved Violet	MP, LV

As of March 2022, only 42 of these are tracked and mapped by the CNDDB in their GIS dabase, generally those with a CNPS Rarity Ranking of 1 or 2, plus those with a rank of 4 that were previously ranked as a 1. Those 42 taxa are listed below. The CNDDB has mapped a total of 280 descrete occurrences of these 42 rare plant taxa. This number will increase significantly with the addition of the observations CNPS has made of these taxa over the last few years.

Special-status plant taxa that are documented in the Utom River watershed and also tracked in the CNDDB:

Acanthoscyphus parishii var. abramsii Arctostaphylos glandulosa ssp. gabrielensis Atriplex serenana var. davidsonii California macrophylla Allium howellii var. clokeyi Astragalus pycnostachyus var. lanosissimus Berberis nevinii Calochortus clavatus var. gracilis Botanical Resources of the Utom (Santa Clara) River Watershed Project No. 60-6013-1 8 February 2023 Page 18



Calochortus fimbriatus Calochortus plummerae Castilleja gleasoni Chloropyron maritimum ssp. maritimum Chorizanthe parryi var. parryi Dodecahema leptoceras Fritillaria ojaiensis Helianthus inexpectatus Lepechinia rossii Malacothamnus davidsonii Navarretia fossalis Navarretia peninsularis Nemacladus secundiflorus var. robbinsii Orcuttia californica Senecio aphanactis Stylocline masonii Viola pinetorum var. grisea

Calochortus palmeri var. palmeri Calystegia peirsonii Caulanthus lemmonii Chorizanthe parryi var. fernandina Delphinium umbraculorum Eriogonum kennedyi var. alpigenum Harpagonella palmeri Layia heterotricha Linanthus concinnus Monardella linoides ssp. oblonga Navarretia ojaiensis Navarretia setiloba Opuntia basilaris var. brachyclada Opuntia basilaris var. treleasei Orobanche valida ssp. valida Sidalcea neomexicana Symphyotrichum greatae









PLANT COMMUNITIES/VEGETATION TYPES

The vegetation of the Utom River watershed is comprised of three predominant habitat types, including woodlands/forests, scrublands, and grasslands/herblands. Specifically, the watershed bioregions contain the following alliances (plant communities). One hundred forty-nine (149) specific vegetation alliances recognized in the *Manual of California Vegetation* (Sawyer et al. 2009) and <u>A Manual of California Vegetation Online</u>⁶, have been identified in the watershed during the floristic surveys. An additional twenty-two (22) vegetation alliances were identified that occurred consistently across the watershed bioregions and are considered to be candidates for recognition as California vegetation alliances. These are listed below according to their basic form, following the CNPS/CDFW vegetation classification system (Sawyer et al. 2009), with published alliances or associations by CNPS since the publication of the *Manual of California Vegetation* (Buck-Diaz et al. 2013).

Appendix B, Vegetation Alliances of the Utom River Watershed, contains a table that lists the one hundred fourty-nine (149) total vegetation alliances and indicates where they occur in the respective bioregions.

Forest and Woodland

Thirty (30) forest and woodland vegetation alliances (communities), plus at least one association, occur in the watershed, including:

- Abies lowiana Forest Alliance
- Abies lowiana–Pinus lambertiana Forest Alliance
- Aesculus californica Woodland Alliance
- Alnus rhombifolia Forest Alliance (Riparian)
- Calocedrus decurrens Forest Alliance
- Eucalyptus spp.–Ailanthus altissima–Robinia pseudoacacia Semi-natural Alliance
- Juglans californica Woodland Alliance
- Juniperus californica Woodland Alliance
- Pinus coulteri Forest Alliance
- *Pinus flexilis* Woodland Alliance
- Pinus jeffreyi Forest Alliance
- Pinus lambertiana Forest Alliance
- Pinus monophylla–(Juniperus californica) Woodland Alliance
- Pinus ponderosa Forest Alliance
- Pinus sabiniana Woodland Alliance
- Platanus racemosa–Quercus agrifolia Woodland Alliance (Riparian)
- Populus fremontii–Fraxinus velutina–Salix gooddingii Woodland Alliance (Riparian)
- Populus trichocarpa Forest Alliance (Riparian)
- Pseudotsuga macrocarpa Forest Alliance
 Pseudotsuga macrocarpa-Quercus chrysolepis Forest Association
- Quercus agrifolia Woodland Alliance
- Quercus douglasii Woodland Alliance

⁶ https://vegetation.cnps.org/

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- *Quercus chrysolepis* (tree) Woodland Alliance
- Quercus kelloggii Woodland Alliance
- *Quercus lobata* Woodland Alliance
- Salix gooddingii–Salix laevigata Woodland Alliance (Riparian)
- *Salix lasiandra* Woodland Alliance (Riparian)
- Salix lasiolepis Woodland Alliance (Riparian)
- Schinus (molle, terebinthifolius)–Myoporum laetum Woodland Semi-natural Alliance
- Umbellularia californica Woodland Alliance
- *Yucca brevifolia* Woodland Alliance

There are also several associations of these alliances found in the watershed, such as the *Pseudotsuga macrocarpa-Quercus chrysolepis* Forest Association listed above and pictured on the right.



Canyons and valleys of the watershed, outside of the riparian corridors, are dominated by oak woodlands, with *Quercus agrifolia* being the dominant tree in the lower elevation areas (as shown in the photo to the left), replaced by *Q. chrysolepis* in higher elevation areas of the watershed.



Forested communities of the Utom River watershed, occurring generally above 6,000 feet, are dominated by *Pinus jeffreyi*, among other species of *Pinus*. A few examples are shown below.



Left: *Pinus jeffreyi*-dominated conifer forest on Mount Pinos, also found on Alamo Mountain, Frazier Mountain, Pine Mountain, San Guillermo Mountain, and the San Gabriel Mountains. Right: *Pinus lambertiana*, Sugar Pine, on Alamo Mountain, also found on Santa Paula Peak, Mount Pinos, Frazier Mountain, and Pine Mountain associated with *Pinus jeffreyi* Forest Alliance. (Photos by David Magney.)





Left: Yucca brevifolia Woodland Alliance in Peace Valley. *Right: Pinus monophylla* Woodland Alliance on the southwest slope of Pine Mountain. (Photos by David Magney.)



Left: Populus fremontii-Salix spp. Riparian Woodland Alliance along upper Sespe Creek. *Center: Alnus rhombifolia* Forest Alliance along Santa Paula Creek. *Right: Populus fremontii* Woodland Alliance along middle Sespe Creek. (Photos by David Magney.)

Shrubland

Shrubland alliances are the most abundant vegetation alliances, both floristically and spatially, in the watershed. Generally, the higher elevation portions on the southern part of the watershed have more forested area, while the lower elevation portions are dominated by shrubland and herbland alliances. As is the case for other areas in the California Floristic Province, *Adenostoma fascicultum* (Chamise) Shrubland Alliance is the most common vegetation alliance within the watershed.

Sixty-one (61) shrubland vegetation alliances (communities) occur in the watershed, including:

- Acacia spp.–Grevillea spp.–Leptospermum laevigatum Semi-natural Alliance
- Acmispon glaber-Lupinus albifrons-Eriodictyon crassifolium Shrubland Alliance
- Adenostoma fasciculatum Shrubland Alliance
- Adenostoma fasciculatum–Salvia spp. Shrubland Alliance
- Amorpha californica Provisional Shrubland Alliance
- Arctostaphylos glandulosa Shrubland Alliance


- Arctostaphylos glauca Shrubland Alliance
- Arctostaphylos parryana Shrubland Alliance
- Arctostaphylos pungens–Arctostaphylos pringlei Shrubland Alliance
- Artemisia californica–(Salvia leucophylla) Shrubland Alliance
- Artemisia californica–Salvia mellifera Shrubland Alliance
- Artemisia tridentata ssp. tridentata Shrubland Alliance
- Atriplex canescens Shrubland Alliance
- Atriplex lentiformis Shrubland Alliance (Riparian)
- Baccharis pilularis Shrubland Alliance
- Baccharis salicifolia Shrubland Alliance (Riparian)
- Ceanothus crassifolius Shrubland Alliance
- Ceanothus cuneatus Shrubland Alliance
- Ceanothus greggii-Fremontodendron californicum Shrubland Alliance
- Ceanothus integerrimus/palmeri Shrubland Alliance
- *Ceanothus leucodermis* Shrubland Alliance
- *Ceanothus megacarpus* Shrubland Alliance
- Ceanothus oliganthus–C. leucodermis–C. tomentosus Shrubland Alliance
- Cercocarpus betuloides Shrubland Alliance
- Chrysothamnus viscidiflorus Shrubland Alliance
- Encelia californica–Eriogonum cinereum Shrubland Alliance
- Ephedra viridis Shrubland Alliance
- Ericameria linearifolia Shrubland Alliance
- Ericameria linearifolia–Peritoma arborea Shrubland Alliance
- Ericameria nauseosa Shrubland Alliance
- *Eriogonum fasciculatum* Shrubland Alliance
- Eriogonum fasciculatum–Salvia apiana Shrubland Alliance
- Eriogonum kennedyi Shrubland Alliance
- *Eriogonum umbellatum* Shrubland Alliance
- Eriogonum wrightii–Eriogonum heermannii–Buddleja utahensis Shrubland Alliance
- *Gutierrezia californica* Shrubland Alliance
- Hesperoyucca whipplei Shrubland Alliance
- Isocoma menziesii Shrubland Alliance
- Lepidospartum squamatum Shrubland Alliance (Riparian)
- Leptosyne [Coreopsis] gigantea Shrubland Alliance
- Malacothamnus fasciculatus-Malacothamnus spp. Shrubland Alliance
- Malosma laurina Shrubland Alliance
- Nicotiana glauca Provisional Shrubland Semi-natural Alliance
- Opuntia littoralis–Opuntia oricola–Cylindropuntia prolifera Shrubland Alliance
- Peritoma arborea Shrubland Alliance
- Pluchea sericea Shrubland Alliance (Riparian)
- Prunus ilicifolia-Heteromeles arbutifolia-Ceanothus spinosus Shrubland Alliance
- Prunus virginiana Shrubland Alliance
- *Quercus berberidifolia* Shrubland Alliance
- Quercus garryana (shrub) Shrubland Alliance
- Quercus john-tuckeri Shrubland Alliance
- Quercus wislizeni–Quercus chrysolepis (shrub) Shrubland Alliance
- Rhus integrifolia Shrubland Alliance
- *Rhus ovata* Shrubland Alliance
- *Rhus aromatica–Crataegus rivularis–Forestiera pubescens* Shrubland Alliance



- *Ribes quercetorum* Shrubland Alliance
- Ricinus communis Provisional Shrubland Semi-natural Alliance
- *Rosa californica* Shrubland Alliance
- Sarcocornia pacifica [Salicornia depressa] Shrubland Alliance (Estuarine)
- *Salix exigua* Shrubland Alliance (Riparian)
- *Tamarix* spp. Shrubland Semi-natural Alliance (Riparian)

Adenostoma fasciculatum Shrubland Alliance and Artemisia californica–(Salvia leucophylla) Shrubland Alliance are the most abundant shrubland alliances in the watershed. Arctostaphylos glandulosa Shrubland Alliance is the most abundant shrubland alliance at higher elevations, generally above 4,000 feet. A few examples are shown below.



Left: Adenostoma fasciculatum Shrubland Alliance. Right: Ceanothus crassifolius Shrubland Alliance on Pollard Point. (Photos by David Magney.)



Left: Artemisia californica-Salvia leucophylla Shrubland Alliance on Santa Paula Ridge. *Right: Peritoma arborea* Shrubland Alliance in Peace Valley. (Photos by David Magney.)

Grassland/Herbland

Fifty-eight (58) described⁷ herbaceous (herbland) vegetation alliances (communities) occur in the watershed, including:

• Abronia latifolia–Ambrosia chamissonis Herbaceous Alliance

⁷ Published in the <u>Manual of California Vegetation Online Edition</u>.



- Adiantum (capilis-veneris, jordanii)-Erythranthe guttata Provisional Alliance (under California Cliff Group)
- Anemopsis californica–Helianthus nuttallii–Solidago spectabilis Herbaceous Alliance
- Ambrosia psilostachya Herbaceous Alliance
- Amsinckia intermedia Herbaceous Alliance
- Amsinckia menziesii Herbaceous Alliance
- Amsinckia (menziesii, tessellata)-Phacelia spp. Herbaceous Alliance
- Amsinckia tessellata Herbaceous Alliance
- Anemopsis californica Herbaceous Alliance
- Artemisia dracunculus Herbaceous Alliance
- Arthrocnemum subterminale Herbaceous Alliance
- Avena (barbata, fatua) Semi-natural Alliance
- Avena spp.-Bromus spp. Herbaceous Semi-natural Alliance
- Azolla (filiculoides, microphylla) Herbaceous Alliance
- *Brassica* and other mustards Semi-natural Alliance
- Brassica nigra-Centaurea (solstitialis, melitensis) Herbaceous Semi-natural Alliance
- Bromus carinatus–Elymus glaucus Herbaceous Alliance
- Bromus diandrus Semi-natural Alliance
- Bromus rubens Semi-natural Alliance
- Bromus rubens-Schismus (arabicus, barbatus) Herbaceous Semi-natural Alliance
- Bromus tectorum Semi-natural Alliance
- Bromus tectorum-Elymus caput-medusae Semi-natural Alliance
- *Carex spp.* Herbaceous Alliance
- Carpobrotus (chilensis, edulis) Semi-natural Alliance
- Claytonia perfoliata Herbaceous Alliance
- Corethrogyne filaginifolia-Eriogonum (elongatum, nudum) Herbaceous Alliance
- Distichlis spicata Herbaceous Alliance
- Dudleya cymosa-D. lanceolata/Lichen-Moss Sparsely Vegetated Alliance
- Elymus condensatus Herbaceous Alliance
- Elymus multisetus Provisional Herbaceous Alliance
- Elymus cinereus–Elymus triticoides Herbaceous Alliance
- Eriogonum angulosum–Bromus rubens Herbaceous Alliance
- Eriogonum (inflatum, clavatum, trichopes) Provisional Herbaceous Alliance
- Eriogonum elongatum Herbaceous Alliance
- Erodium cicutarium Semi-natural Alliance
- Eschscholzia californica Herbaceous Alliance
- Frankenia salina Herbaceous Alliance
- Heterotheca (oregona, sessiliflora) Herbaceous Alliance
- Hordeum murinum Herbaceous Alliance
- Juncus (balticus, mexicanus) Herbaceous Alliance
- Juncus (effusus, patens)–Carex (pansa, praegracilis) Herbaceous Alliance
- Lasthenica (californica, gracilis) Herbaceous Alliance
- Madia elegans Provisional Herbaceous Alliance
- Mesembryanthemum spp.-Carpobrotus spp. Herbaceous Semi-natural Alliance
- Muhlenbergia filiformis Provisional Herbaceous Alliance
- *Muhlenbergia rigens* Herbaceous Alliance
- Pennisetum setaceum–Pennisetum ciliare Herbaceous Semi-natural Alliance
- Phacelia tanacetifolia Herbaceous Alliance
- Phragmites australis-Arundo donax Herbaceous Semi-natural Alliance



- Poa secunda Herbaceous Alliance
- Schoenoplectus (acutus, californicus) Herbaceous Alliance
- Schoenoplectus pungens Provisional Herbaceous Alliance
- Sedum spathulifolium-Polypodium californicum/Lichen-Moss Herbaceous Alliance
- Selaginella (bigelovii, wallacei) Herbaceous Alliance
- Stipa cernua Provisional Herbaceous Alliance
- *Stipa pulchra* Herbaceous Alliance
- Typha (angustifolia, domingensis, latifolia) Herbaceous Alliance
- Veratrum californicum Herbaceous Alliance

The herbland vegetation alliances are the most floristically rich and varied of the three general forms (woodlands, shrublands, herblands). The alliances dominated by annual species are found most extensively in the lower elevation areas of the watershed. These areas are heavily dominated by annual forb species such as *Amsinckia* Herbaceous Alliance, *Avena* spp.–*Bromus* spp. Herbaceous Semi-natural Alliance, *Brassica nigra–Centaurea (solstitialis, melitensis)* Herbaceous Semi-natural Alliance, *Phacelia ciliata* Herbaceous Alliance, and *Erodium cicutarium* Semi-natural Stands. They are also dominated by annual exotic grass alliances such as *Bromus diandrus* Semi-natural Stands and *Bromus rubens* Semi-natural Stands.



The herbland alliances are predominantly composed of annual species, which vary depending on the season in which they are sampled. For example, an area dominated by *Amsinckia* Herbaceous Alliance may change into *Bromus diandrus* Herbaceous Alliance between early spring and late spring. Amsinckia tessellata from Peace Valley is shown to the left as an example (Photo by David Magney).

Abundant herbland vegetation alliances dominated by perennials within the watershed includes: *Carex spp.*

Herbaceous Alliance, *Corethrogyne filaginifolia–Eriogonum* (*elongatum, nudum*) Herbaceous Alliance, *Juncus (effusus, patens)–Carex (pansa, praegracilis)* Herbaceous Alliance (example shown to the right from Mount Pinos, photo by David Magney), and *Stipa pulchra* Herbaceous Alliance.



Another category of herbaceous vegetation includes those occurring on cliff faces, rock outcrops, and rock scree or talus, where the key consideration is the general lack of soil as a growing medium. This is a group of vegetation alliances that have received little attention, primarily due to the small area of ground covered by them. Regardless,



this group is receiving more attention recently and will be examined more carefully by the CNPS Vegetation Program in the future. Example alliances for this found in the Utom watershed include: *Adiantum (capilis-veneris, jordanii)-Erythranthe guttata* Provisional Alliance, *Sedum spathulifolium-Polypodium californicum*/ Lichen-Moss Herbaceous Alliance with an example on the left showing a Dudleya cymosa surrounded by mosses on a vertical cliff (photo by David Magney), and *Selaginella (bigelovii, wallacei*) Herbaceous Alliance.



SUMMARY OF WATERSHED BIOREGIONS

The Utom River watershed falls entirely within the California Floristic Province and the majority of it is within the Southwestern Region. The northernmost tip of the watershed includes the southwest toe of the Tehachapi Mountains, which is in the Tehachapi District of the Sierra Nevada Region. Most of the Southwestern Region portion of the watershed includes two subregions, the South Coast and Transverse Ranges Subregions. The Transverse Ranges Region within the watershed contains two subregions: the Western Transverse Ranges and the San Gabriel Mountains. Below is a map provided by the Jepson Flora Project depicting California's ecoregions⁸, Figure 4, Geographic Subdivisions of California.

Figure 4. Geographic Floristic Subdivisions of California



⁸ From <u>Jepson eFlora</u>







To further refine the watershed into small floristic units, the watershed was further divided into local bioregions, based primarily on topographic relief, using the primary landform placenames to name each bioregion following the approach used by Magney (2011) for the <u>Ventura County</u> flora.

There are fifty-four (54) bioregions within/making up the Utom River Watershed. A summary of the flora, special-status plants, habitats, and recommendations for each of the bioregions is provided below in Table 4, Characteristics of Utom River Watershed Bioregions, listed alphabetically. Photographs that provide visual representations about most of the bioregions are included for each of the bioregions.

Bioregion (Abbreviation)	Landform	Size	County
Acton Valley (AV)	Valley	13,830 acres/5,597 hectares	Los Angeles
Agua Blanca Creek (ABC)	Canyon	7,491 acres/3,031 hectares	Ventura
Alamo Mountain (AM)	Mountain	89,090 acres/36,054 hectares	Ventura & Los Angeles
Bald Mountain (BM)	Mountain	17,927 acres/7,255 hectares	Los Angeles
Bouquet Canyon (BC)	Canyon	11,470 acres/4,642 hectares	Los Angeles
Castaic Valley (CV)	Valley	20,673 acres/8,366 hectares	Los Angeles
Del Sur Ridge (DSR)	Mountain	40,749 acres/16,491 hectares	Los Angeles

Table 4.	Characteristics	of Utom	River	Watershed	Bioregions
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Bioregion (Abbreviation)	Landform	Size	County
Dry Lakes Ridge (DLR)	Mountain	12,440 acres/5,034 hectares	Ventura
Frazier Mountain (FM)	Mountain	40,005 acres/16,190 hectares	Ventura
Gold Hill (GH)	Mountain	6,196 acres/2,508 hectares	Ventura
Hungry Valley (HV)	Valley	20,029 acres/8,106 hectares	Ventura & Los Angeles
Liebre Mountain (LM)	Mountain	39,760 acres/16,091 hectares	Los Angeles
Lockwood Valley (LV)	Valley	33,203 acres/13,437 hectares	Ventura
Lower Middle Piru Creek (Plm)	Canyon	25,569 acres/10,348 hectares	Los Angeles & Ventura
Lower Piru Creek (Pcl)	Canyon	8,592 acres/3,477 hectares	Ventura
Lower Sespe Creek (Sl)	Canyon	8,070 acres/3,266 hectares	Ventura
Middle Sespe Creek (Sm)	Canyon	24,246 acres/9,812 hectares	Ventura
Mint Canyon (MintC)	Canyon	4,877 acres/1,974 hectares	Los Angeles
Montalvo (M)	Valley	7,316 acres/2,961 hectares	Ventura
Mount Pinos (MP)	Mountain	66,953 acres/27,095 hectares	Ventura & Kern
Nordhoff Ridge (NR)	Mountain	40,972 acres/16,581 hectares	Ventura
Ortega Hill (OH)	Mountain	24,974 acres/10,107 hectares	Ventura
Oxnard Plain (OP)	Plain	88,058 acres/35,637 hectares	Ventura
Parker Mountain (PM)	Mountain	22,208 acres/8,987 hectares	Los Angeles
Peace Valley (PV)	Valley	22,748 acres/9,206 hectares	Los Angeles
Pine Mountain Ridge (PMR)	Mountain	112,031 acres/45,338 hectares	Ventura
Pollard Point (PP)	Mountain	2,218 acres/898 hectares	Ventura
Portal Ridge (PorR)	Mountain	58,969 acres/23,864 hectares	Los Angeles
Red Mountain (RM)	Mountain	26,342 acres/10,660 hectares	Los Angeles
Redrock Mountain (RRM)	Mountain	9,766 acres/3,952 hectares	Los Angeles
Ridge Route Ridge (RRR)	Mountain	14,187 acres/5,741 hectares	Los Angeles
Rose Valley (RV)	Valley	2,611 acres/1,057 hectares	Ventura
Saddleback Mountain (SadM)	Mountain	15,360 acres/6,216 hectares	Los Angeles
San Francisquito Canyon (SFC)	Canyon	28,383 acres/11,486 hectares	Los Angeles
San Gabriel Mountains (SGabM)	Mountain	109,073 acres/44,141 hectares	Los Angeles
San Guillermo Mountain (SGM)	Mountain	25,427 acres/10,290 hectares	Ventura
Santa Clara River Valley (SCR)	Valley	149,787 acres/60,618 hectares	Ventura & Los Angeles
Santa Paula Canyon (SPC)	Canyon	8,971 acres/3,630 hectares	Ventura
Santa Paula Ridge (SPR)	Ridge	30,996 acres/12,544 hectares	Ventura
Santa Susana Mountains (SSM)	Mountain Ridge	167,689 acres/67,863 hectares	Ventura & Los Angeles
Sawmill Mountain (SawM)	Mountain	65,953 acres/26,691 hectares	Los Angeles
Sierra Pelona (SP)	Mountain	81,413 acres/32,947 hectares	Los Angeles
Sierra Pelona Valley (SPV)	Valley	8,490 acres/3,436 hectares	Los Angeles
Soledad Canyon (SolC)	Canyon	25,336 acres/10,253 hectares	Los Angeles
Sulphur Mountain (SM)	Mountain	33,917 acres/13,726 hectares	Ventura
Tehachapi Mountains (TehM)	Mountain	2,918 acres/1,181 hectares	Los Angeles & Kern
Topatopa Mountains (TTM)	Mountain	67,262 acres/27,220 hectares	Ventura
Upper Middle Piru Creek (Pum)	Canyon	17,524 acres/7,092 hectares	Ventura & Los Angeles
Upper Piru Creek (Pcu)	Canyon	34,168 acres/13,828 hectares	Ventura
Upper Sespe Creek (Su)	Canyon	11,208 acres/4,536 hectares	Ventura
Ventura Hills (VH)	Mountain	57,421 acres/23,238 hectares	Ventura



Bioregion (Abbreviation)	Landform	Size	County
Warm Springs Mountain (WSM)	Mountain	17,296 acres/7,000 hectares	Los Angeles
Whitaker Peak (WP)	Mountain	49,877 acres/20,185 hectares	Los Angeles
Whiteacre Peak Ridge (WPR)	Mountain	91,321 acres/36,957 hectares	Ventura

The chart below graphically illustrates the range in size of each bioregion, measured in acres. Pollard Point is the smallest bioregion, and the Santa Susana Mountains is the largest. Generally, those bioregions characterized by mountains are the largest with canyons characterized by narrow, deep canyons. Pollard Point, Rose Valley, and the Tehachapi Mountains are oddballs in that Pollard Point is a small ridge, Rose Valley is a small mountain valley, and the Tehachapi Mountains bioregion represents only a very small portion of the mountain range, which extends well beyond the Utom River watershed.

Below are descriptions of the geography, geology, topography, flora (including special-status species), climate⁹, and natural habitats for each of the 54 bioregions. Which plants occur within each bioregion is provided in the matrix table as Appendix A.

⁹ Since most bioregions lack a weather station, climate data for those lacking a weather station use the data from the nearest weather station.







ACTON VALLEY

The Acton Valley bioregion (AV) ranges from approximately 2,724 feet to 3,940 feet in elevation and is approximately 13,830 acres (5,596 hectares) in area and is ranked 39th in size of the 54 watershed bioregions. It is a high-elevation valley generally on a south-facing slope. Acton Valley is mostly comprised of a south-facing broad valley that drains into upper reaches of the Utom River. It is part of the Western Transverse Ranges subregion.

Acton Valley geology comprises both marine sedimentary and plutonic rocks. Its soils are mostly of Caperton in the Xeroll suborder.

The climate of the Acton Valley is Mediterranean with cool wet winters and hot dry summers. Acton Valley bioregion climate is heavily influenced by its proximity to the Mojave Desert to the east. The average mean high temperature is 93°F and the average mean low temperature is 35°F. The average annual precipitation is 9.3 inches/236.2 mm.

Most of the land in the Acton Valley bioregion is private, consisting of small to large lots and small ranches. The bioregion is 98% privately owned with only 272 acres of public land out of the total 13,830 acres that makes up the area.

Acton Valley Bioregion Location

The Acton Valley bioregion is located in the upper Utom River watershed in Los Angeles County. It is bordered by Sierra Pelona bioregion to the north, Parker Mountain bioregion to the west, and the Soledad Canyon bioregion to the east and south. Figure 5, Map of Acton Valley Bioregion, provides a map of the Acton Valley bioregion on a topographic map. Most of the land in the Acton Valley is private, consisting of small to large lots and small ranches, as illustrated by the parcel boundaries shown on Figure 5.

State Route (SR) 14/Antelope Highway, crosses Acton Valley from west to east, with numerous paved roads throughout the bioregion. Acton Canyon flows through the bioregion from northeast to the Utom River on the south side of the bioregion.

Acton Valley Flora

The Acton Valley bioregion flora contains approximately 98 taxa with an additional 4 taxa identified just to genus. CNPS observed a total of 31 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 5 waypoints. An average of 11.2 taxa were observed at each waypoint. Of these 31 taxa observed, 24 (77.4%) are native and 7 (22.6%) are non-native. This ratio of native to non-native plants is slightly higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

One (1) voucher collection was made by Jonathon Holguin, in addition to 55 observations, in the Acton Valley bioregion. CCH cites 70 vouchers, representing 52 taxa¹⁰, recorded by others from this bioregion prior to this study. Table 5, Consolidated Statistics of the Action Valley Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion. We expect that there are at least 100 vascular plant taxa in this bioregion.

¹⁰ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxon count for each bioregion has been refined to exclude synonyms.





Figure 6. Map of Acton Valley Bioregion

Overall, the Acton Valley bioregion is primarily dominated by *Eriogonum fasciculatum* vars. and *Juniperus californica*.



Acton Valley Flora Quick Stats			
	# Taxa Observed	31	
CNPS	# Vouchers Collected	1	
	# Waypoints	5	
CCU	# Taxa Reported ⁶	52	
ССН	# Vouchers Collected	70	
Total # Taxa Reported for Bioregion		98	
Total # Vouchers Collected for Bioregion		71	

Table 5. Consolidated Statistics of the Acton Valley Bioregion Flora

Acton Valley Special-status Species

Acton Valley provides habitat for 3 special-status species: *Calochortus clavatus* ssp. *clavatus*, *Opuntia basilaris* var. *brachyclada*, and *Castilleja plagiotoma* (not observed, vouchered by H. L. Mason in 1926, possibly extirpated).

Acton Valley Habitats

The Acton Valley bioregion contains approximately four (4) habitat types, composed of woodlands, shrublands, herblands, and rock outcrops. It contains slopes dominated by California Juniper Woodland, Coastal Scrub (California Buckwheat Scrub), and Chamise Chaparral.

A large portion of the private parcels in Acton Valley have been developed or the natural vegetation removed or modified as some time, so most of the natural habitats remaining are on public lands or portions of large private parcels that have a few structures.



Left: Pinyon-Juniper Woodland with *Cylindropuntia acanthocarpa* in center. *Center and Right*: Pinyon-Juniper Woodland habitat. (Photos by Jonathon Holquin.)



Acton Valley Recommendations

Acton Valley exhibits fairly low diversity of native plants, in large part since it has been altered by intensive grazing and urban development even though the housing density is low, but also because the flora is still not adequately surveyed. Most of the natural vegetation on Acton Valley residential lands has been cleared and replaced with hardscaping or ornamental plantings. It is mostly composed of moderate to gentle slopes that are somewhat susceptible to erosion.

AGUA BLANCA CREEK

The Agua Blanca Creek bioregion (ABC) ranges from approximately 1,136 feet to 4,597 feet in elevation and is approximately 7,490 acres (3,031 hectares) in size and is ranked 47th in size of the 54 watershed bioregions. It is characterized as a deeply incised canyon flowing in the southeasterly direction. The canyon containing Agua Blanca Creek was formed by erosion along the Agua Blanca Fault, possibly a branch of the Pine Mountain Fault and likely of young Miocene (Yeates et al. 1994). The creek drains the south flank of Cobblestone Mountain, which is part of the Alamo Mountain bioregion. It is part of the Western Transverse Ranges.

Its geology is exclusively made up of marine sedimentary rocks of Tertiary age including the Rincon, Vasqueros, and Sespe Formations (Yeates et al. 1994). Eocene sedimentary formations occur to the north. Its soil is mostly Lodo of the Xeroll suborder.

The climate of the Agua Blanca Creek bioregion is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 92°F and the average mean low temperature is 38°F. The average annual precipitation is 20-25 inches/508-635mm.

Agua Blanca Creek is within the Sespe Wilderness of the Los Padres National Forest and the only access is by trails from the west and east. Most of bioregion (98%) is public land.

Agua Blanca Creek Bioregion Location

The Agua Blanca Creek bioregion is located in the Piru Creek watershed in the central portion of the Utom River watershed. It is bordered by Alamo Mountain bioregion (Cobblestone Mountain) to the north, Lower Middle Piru Creek bioregion to the east, Whiteacre Peak Ridge bioregion to the south, and Alamo Mountain bioregion to the west and north. Figure 6, Map of Agua Blanca Creek Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

Agua Blanca Creek Flora

The Agua Blanca Creek bioregion flora contains approximately 128 taxa with an additional 3 that are identified only to genus. CNPS observed a total of 39 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 6 waypoints. An average of 9.5 taxa were observed at each waypoint. Nearly all of the observations and vouchers from this bioregion are from along the creek and associated hiking trails. Access to the canyon slopes and adjacent ridgetops is extremely limited. Of the 139 taxa documented in this bioregion, 135 (97.1%) are native and 4 (2.9%) are non-native. This ratio of native to non-native plants is significantly higher than the rest of California, which has about 75% native and 25% non-native



(Baldwin et al. 2012), indicating the integrity of the flora and lack of inappropriate land uses in this remote canyon.



Figure 7. Map of Agua Blanca Creek Bioregion



A total of two (2) vouchers were collected from this bioregion by Jonathon Holguin with an additional 58 observations. CCH cites 92 vouchers, representing 78 taxa¹¹, recorded by others prior to this study. Magney (2021 manuscript) identified 136 vascular plant taxa (plus 3 to genus only) from Agua Blanca Creek and collected 40 vouchers in 1984. An additional 3 taxa were recorded as within the bioregion on iNaturalist. Table 6, Consolidated Statistics of the Agua Blanca Creek Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, Agua Blanca Creek is primarily dominated by riparian wetland taxa along the streams and springs and chaparral taxa on the slopes. *Alnus rhombifolia*, *Platanus racemosa*, and *Populus fremontii* are the typical riparian trees along Agua Blanca Creek with understory shrubs such as *Baccharis salicifolia*. *Quercus agrifolia* typically occupies adjacent banks and benches along the canyon.

Agua Blanca Creek Flora Quick Stats			
CNPS	# Taxa Observed	39	
	# Vouchers Collected	2	
	# Waypoints	6	
ССН	# Taxa Reported ⁷	78	
	# Vouchers Collected	92	
Total # Taxa Reported for Bioregion		128	
Total # Vouchers Collected for Bioregion		94	

Table 6. Consolidated Statistics of the Agua Blanca Creek Bioregion Flora

Agua Blanca Creek Special-status Species

Agua Blanca Creek provides habitat for seven (7) special-status plant species, including: *Calochortus clavatus var. clavatus, Juglans californica, Juncus acutus ssp. leopoldii, Lepechinia rossii, Lilium humboldtii ssp. ocellatum, Rhinotropis cornuta var. fishiae, and Symphyotrichum greatae.*

Agua Blanca Creek Habitats

Agua Blanca Creek contains approximately five (5) habitat types, composed of woodlands, shrublands, herblands, and rock outcrops. The nature of this bioregion as a narrow and deep canyon supports a perennial stream dominated by Alder and Sycamore Riparian Forest (*Alnus rhombifolia* Forest Alliance, *Platanus racemosa* Woodland Alliance, *Populus fremontii-Salix laevigata* Woodland Alliance) in the canyon bottom and chaparral and rock outcrops habitats on the steep slopes of the canyon. It is mostly comprised of chaparral and riparian habitats and drains eastward into Piru Creek.

¹¹ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.





Above: Aerial imagery of Agua Blanca Creek exhibiting steep canyon walls and a winding riparian course supporting riparian vegetation (Google Earth 2022). South-facing sloped are sparsely vegetated with chaparral dominating the ridgelines above Agua Blanca Creek.



Agua Blanca Creek with Cottonwood-Willow-Sycamore Riparian, dominated by Populus fremontii. Right Center and Right: Agua Blanca Trail and Creek looking downstream and riparian scrub and woodland with Coast Live Oak and chaparral on the slopes. (Photos by Jonathon Holguin.)





Left: Carex senta tussock in Agua Blanca Creek. Center: Freshwater Marsh in Agua Blanca Creek dominated by Typha domingensis and a Schoenoplectus in openings of the Cottonwood-Willow Riparian Forest. *Right:* A mesic shaded rock clifface with *Polypodium californicum*, *Pellaea andromedifolia*, *Dudleya cymosa* var. *pumila*, and a *Homalothecium* moss. (Photos by Jonathon Holguin.)

Agua Blanca Creek Recommendations

Agua Blanca Creek is within formally designated wilderness and should be considered in a protected status. No actions by the Los Padres National Forest should be taken that would significantly alter the botanical resources of this bioregion.

ALAMO MOUNTAIN

The Alamo Mountain bioregion (AM) ranges from approximately 1,683 feet to 7,402 feet in elevation and is approximately 89,090 acres (36,054 hectares) in size and ranks 6th in area of the watershed. It is mostly comprised of a high mountain that drains into Piru Creek for the most part and into Cuddy Creek on the north slope outside the Utom River watershed. It is part of the Western Transverse Ranges.

The geology of Alamo Mountain is made up of both marine sedimentary and plutonic rocks. Pelona Schist (as shown in the photo to the right) and Adamilite granite are two dominant rock types on the mountain. Its soils are mostly Los Gatos Series of the Xeroll suborder.

The climate of Alamo Mountain is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 82°F and the average mean low temperature is 32°F. The average annual precipitation is 25-29 inches/635-736.6 mm. A significant portion of the annual precipitation comes in the form of snow during the winter months.



All of the land in the Alamo Mountain bioregion is public, except for a 23-acre private parcel, and part of the Los Padres National Forest.



Alamo Mountain Bioregion Location

Alamo Mountain is located in the north-central portion of the watershed and contributes to Piru and Sespe Creeks and is entirely within Ventura County. It is bordered by Upper Middle Piru Creek bioregion and Frazier Mountain/Gold Hill bioregions to the north, Hungry Valley and Upper Middle Piru Creek bioregions to the east, Agua Blanca Creek bioregion to the south, and Pine Mountain Ridge and Upper Piru Creek bioregions to the west. Figure 7, Map of Alamo Mountain Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

The Alamo Mountain bioregion is accessible by road (Gold Hill Road/Forest Service Route 18N01) and foot trails from the west, south, and east. Vehicle access is controlled by the Forest Service and closed during winter months.

Alamo Mountain Flora

The Alamo Mountain bioregion flora contains approximately 269 taxa with an additional 18 taxa identified just to genus. Alamo Mountain contains slopes dominated by *Pinus jeffreyi* above 5,000 feet and *P. monophylla* below 5,000 feet. The rest is dominated by chaparral species. CNPS observed a total of 115 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 38 waypoints. An average of 11.6 taxa were observed at each waypoint. Of these 115 taxa observed, 111 (96.5%) are native and 4 (3.5%) are non-native. This ratio of native to non-native plants is higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

A total of fourty-seven (47) vouchers and 398 observations were made from Alamo Mountain as part of this study, primarly by David Magney. CCH cites 615 vouchers, representing 334 taxa¹², recorded by others for this bioregion prior to this study. Table 7, Consolidated Statistics of the Alamo Mountain Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, Alamo Mountain is primarily dominated by Yellow Pine Forest composed of *Pinus jeffreyi* and *Pinus lambertiana*, but the latter at a much lower density. The understory is dominated by *Symphoricarpos rotundifolius* var. *parishii, Eriogonum spp., Elymus elymoides,* among many others.

¹² The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.





Figure 8. Map of Alamo Mountain Bioregion



Alamo Mountain Flora Quick Stats			
CNPS	# Taxa Observed	115	
	# Vouchers Collected	47	
	# Waypoints	38	
ССН	# Taxa Reported ⁸	334	
	# Vouchers Collected	615	
Total # Taxa Reported for Bioregion		269	
Total # Vouchers Collected for Bioregion		662	

Table 7. Consolidated Statistics of the Alamo Mountain Bioregion Flora

Alamo Mountain Special-status Species

The Alamo Mountain bioregion supports one or more occurrences of twenty-one (21) special-status species; including: *Calochortus clavatus* var. *clavatus*, *C. palmeri* var. *palmeri*, *Delphinium parryi* ssp. *purpureum*, *Diplacus johnstonii*, *Eriastrum sparsiflorum*, *Eriogonum kennedyi* var. *austromontanum*, *Frasera neglecta*, *Fritillaria pinetorum*, *Galium jepsonii*, *Heuchera caespitosa*, *Hulsea vestita* ssp. *gabrielensis*, *Juncus acutus* ssp. *leopoldii*, *Leptosiphon aureus*, *Lessingia tenuis*, *Lupinus elatus*, *Monardella linoides* ssp. *oblonga*, *Navarretia peninsularis*, *Packera ionophylla*, *Phacelia exilis*, *Sidalcea neomexicana*, and *Thermopsis californica* var. *argentata* (Considered but rejected for a rare plant rank [CBR]). A potentially undescribed species of *Aphyllon*, and shown in the photo on the right, may also be a special-status species.





Left: Monardella linoides ssp. oblonga. Right: Frasera neglecta. (Photo by David Magney.)



Alamo Mountain Habitats

Alamo Mountain contains approximately five (5) of habitat types, composed of woodlands, forests, shrublands, herblands, and rock outcrops. The lower elevations of Alamo Mountain are covered by montane chaparral and Pinyon-Juniper Woodland habitats. The upper elevations are dominated by montane chaparral and Yellow Pine Forest and rock outcrops.

The dominant plants of the Pinyon-Juniper Woodland are *Pinus monophylla* and *Quercus johntuckeri*. The dominant trees of the Yellow Pine Forest are *P. jeffreyi*, *P. lambertiana*, and *Quercus chrysolepis*.



View west from summit of Alamo Mountain, dominated by Jeffrey Pine and granite (adamellite) outcrops (Photo by David Magney).



Left: Yellow Pine Forest (Mixed Conifer Forest) dominated by *Pinus jeffreyi, P. lambertiana*, and *Abies lowiana* looking northwest from near Sewart Peak. *Right*: north slope of Alamo Mountain showing montane chaparral and Yellow Pine Forest at higher elevations. (Photos by David Magney.)





Left: Granite (Adamilite) outcrop, which are common on Alamo Mountain. *Center*: typical Yellow Pine Forest understory condition. *Right*: Noth slope along Alamo Mountain Loop Road with *Eriogonum umbellatum* var. *munzii* in bloom. (Photos by David Magney.)

Alamo Mountain Recommendations

Alamo Mountain exhibits a moderate diversity of native plants. It is mostly composed of steep and moderately steep slopes. Several populations of special-status plants occur along Alamo Mountain Loop Road that need to be protected during road maintenance.

BALD MOUNTAIN

The Bald Mountain bioregion (BM) ranges from approximately 2,593 feet to 4,540 feet in elevation and is approximately 12,081 acres (4,889 hectares) in size and ranks 34th in area of the 54 watershed bioregions. It is comprised of two major north-south trending ridgelines creating two major drainages: Apple Canyon and West Fork Liebre Gulch. These formations are steep and difficult to traverse. The northeastern end of the bioregion boasts the highest elevation but presents more gradual, moderate slopes. It is mostly comprised of chaparral with riparian vegetation in the southern portions of Apple Canyon and West Fork Liebre Gulch that drains into Pyramid Lake. It is part of the Western Transverse Ranges.

The bioregion is mostly made up of nonmarine sedimentary rocks, with its soils being composed of the Chaqua series in the Xerepts suborder. There are also some granite substrates in the northeastern end of this bioregion that continues into Liebre Mountain.

The climate of the Bald Mountain bioregion is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 88°F and the average mean low temperature is 38°F. The average annual precipitation is 15 inches/381 mm.

Most of the land in the Bald Mountain bioregion is public land managed by the Angeles National Forest. There also exists a few small parcels managed by the Bureau of Land Management, the California Department of Fish and Wildlife, the California Department of Water Services, and the National Weather Service.

Bald Mountain Bioregion Location

The Bald Mountain bioregion is located in the northwestern portion of Los Angeles County. It is bordered by Portal Ridge bioregion to the northeast, Liebre Mountain bioregion to the east,



Upper Middle Piru Creek bioregion to the south, and Peace Valley bioregion to the west. Figure 8, Map of Bald Mountain Bioregion, illustrates the geography and topography of of this bioregion and where plant observations and voucher specimens were collected.

The Bald Mountain bioregion is accessible by road from I-5 on the west and Old Ridge Route Road on the east side.

Bald Mountain Flora

The Bald Mountain bioregion flora contains approximately 269 taxa with an additional 23 taxa identified just to genus. CNPS observed a total of 242 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 42 waypoints. An average of 19.1 taxa were observed at each waypoint. Of these 242 taxa observed, 217 (89.7%) are native and 25 (10.3%) are non-native. This ratio of native to non-native plants is higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

A total of one hundred sixty-four (164) voucher specimens were collected, primarily by Jordan Collins and some by David Magney, plus 640 observations. CCH cites 135 vouchers specimens, representing 104 taxa¹³, recorded by others from this bioregion prior to this study. Table 8, Consolidated Statistics of the Bald Mountain Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, Bald Mountain is primarily dominated by Chamise Chaparral, Tucker Oak Chaparral, and Annual Herblands¹⁴.

Bald Mountain Flora Quick Stats			
CNPS	# Taxa Observed	242	
	# Vouchers Collected	164	
	# Waypoints	42	
CCU	# Taxa Reported ¹⁰	104	
CCH	# Vouchers Collected	135	
Total # Taxa Reported for Bioregion		269	
Total # Vouchers Collected for Bioregion		299	

Table 8.	Consolidated	Statistics	of the	Bald Mo	untain	Bioregion	Flora
	0011001100000						

¹³ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.

¹⁴ The areas dominated by trees and shrubs were not surveyed as thoroughly as the herbland (grassland) areas, due to difficulty of access.





Figure 9. Map of Bald Mountain Bioregion



Bald Mountain Special-status Species

Bald Mountain provides habitat for three (3) special-status species, including: *Calochortus clavatus var. gracilis, Opuntia basilaris* var. *brachyclada*, and *Thermopsis californica* var. *argentata* (CBR).

Bald Mountain Habitats

Bald Mountain contains approximately nine (9) of habitat types, composed of woodlands, shrublands, herblands, and rock outcrops. This bioregion contains slopes that are dominanted by Chamise Chaparral and Tucker Oak Chaparral. Lower elevations contain Pinyon-Juniper Woodlands dominated by *Pinus monophylla* and *Juniperus californica*.

Other habitats in this bioregion include Foothill Pine Woodlands, Blue Oak Woodlands, Ericameria Scrub, Cottonwood Woodlands, Annual Herblands, and Talus Slope Communities.



Left: Pinyon-Juniper Woodland at the head of Apple Canyon. *Right*: Southern end of West Fork Liebre Gulch with chaparral dominanted hillsides and sparse riparian vegetation. (Photos by Jordan Collins.)



Left: View of Bald Mountain with weather station on summit, highlighting herbland dominant habitat. *Right*: Typical chaparral habitat within the northern end of the bioregion with desert transition species. (Photos by Jordan Collins.)





Left: view west from summit Bald Mountain of herblands habitat dominated by non-native grasses and native forbs such as California Aster (*Corethrogyne filaginifolia*). Right: View southward of Rabbitbrush Shrubland dominated by Common Rubber Rabbitbrush (*Ericameria nauseosa* var. *oreophila*). (Photos by David Magney.)

Bald Mountain Recommendations

Bald Mountain exhibits a moderate diversity of native plants. It is mostly composed of steep slopes that would be highly susceptible to erosion, especially after rainfall. Many powerlines run through this bioregion with rare plants growing underneath them. These plants should be protected during powerline maintenance. Bald Mountain also hosts an extensive ORV area that could negatively affect rare plant populations (such as the low-growing *Opuntia basilaris* var. *brachyclada*). These cacti populations would benefit from having an exclosure to ensure they won't be trampled or run over. Prescribed grazing in certain areas of this bioregion could help curb population numbers of invasive plant species.

BOUQUET CANYON

The Bouquet Canyon bioregion (BC) ranges from approximately 1,465 feet to 3,190 feet in elevation and is approximately 11,470 acres (4,641 hectares) in size and ranks 41st in area of the 54 watershed bioregions. It is a narrow canyon that runs northeast to southwest, draining southward into the Utom River. It is mostly comprised of Bouquet Creek and Bouquet Reservoir, which drains into the Utom River. It is part of the Western Transverse Ranges.

Bouquet Canyon bioregion geology is mostly nonmarine-sedimentary rock, and its soils are made up of a mix of both Gaviota series of the Orthents suborder of the Gaviota series and Baywoods of the Xerols suborder.

The climate of the Bouquet Canyon is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 94°F and the average mean low temperature is 40°F. The average annual precipitation is 17-19 inches/431.8-482.6 mm.

Roughly 60% of the land in the Bouquet Canyon is privately owned, consisting of small to large lots and small ranches. Of the total acreage, 4,652 acres is public land of the Angeles National Forest, and 6,818 acres is private.

Bouquet Canyon Bioregion Location

Bouquet Canyon is located in the Bouquet Creek watershed. It is bordered by Del Sur Ridge to the north and west, and Sierra Pelona to the east. Figure 9, Map of Bouquet Canyon Bioregion,



illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

Bouquet Canyon is accessible via one paved county road, Bouquet Canyon Road.

Bouquet Canyon Flora

The Bouquet Canyon bioregion flora contains approximately 296 taxa with an additional 5 taxa identified just to genus. CNPS observed a total of 73 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 5 waypoints. An average of 20.2 taxa were observed at each waypoint. Of these 73 taxa observed, 59 (80.8%) are native and 14 (19.2%) are non-native. This ratio of native to non-native plants is slightly higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

A total of six (6) voucher specimens were collected within the Bouquet Canyon bioregion, primarily by David Magney, plus another 95 plant observations. CCH cites 381 vouchers, representing 240 taxa¹⁵, recorded by others for this bioregion prior to this study.

Table 9, Consolidated Statistics of the Bouquet Canyon Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion. Overall, Bouquet Canyon is primarily dominated by chaparral vegetation.

Bouquet Canyon Flora Quick Stats			
CNPS	# Taxa Observed	73	
	# Vouchers Collected	6	
	# Waypoints	5	
ССН	# Taxa Reported ¹²	240	
	# Vouchers Collected	381	
Total # Taxa Reported for Bioregion		296	
Total # Vouchers Collected for Bioregion		387	

Table 9. Consolidated Statistics of the Bouquet Canyon Bioregion Flora

Bouquet Canyon Special-status Species

Bouquet Canyon provides habitat for eight (8) special-status species: Calochortus clavatus var. clavatus, C. clavatus var. gracilis, C. palmeri var. palmeri, Calystegia peirsonii, Delphinium parryi ssp. purpureum, Eriastrum sparsiflorum, Juglans californica, and Opuntia basilaris var. brachyclada.

¹⁵ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.





Figure 10. Map of Bouquet Canyon Bioregion



Bouquet Canyon Habitats

Bouquet Canyon contains approximately five (5) of habitat types, composed of woodlands, shrublands, herblands, and rock outcrops. Cottonwood Woodlands dominate the riparian course running through Bouquet Canyon with Chamise Chaparral dominating the more xeric slopes.



View westward of steep slope along Bouquet Canyon Road of open chaparral habitat with a populuation of Slender Club-haired Mariposa Lily (*Calochortus clavatus* var. *gracilis*), a rare plant, on right. (Photos by David Magney.)



Left: Calochortus venustus, Butterfly Mariposa Lily, a common and widespread species. *Right:* Chaparral and Coast Live Oak Woodland along Bouquet Canyon Road. (Photos by David Magney.)

Bouquet Canyon Recommendations

Bouquet Canyon exhibits a moderately high diversity of native plants. It is mostly composed of steep slopes that would be susceptible to erosion. The bioregion contains a fair number of private parcels, many of which are developed into single-family residences. Open space areas, such as on the upper slopes and around Bouquet Canyon Reservoir, are managed either by the Angeles National Forest or the Los Angeles Department of Water and Power. Controlling invasive exotic plants should be a management consideration.



CASTAIC VALLEY

The Castaic Valley bioregion (CV) ranges from approximately 1,028 feet to 2,100 feet in elevation and is approximately 20,672 acres (8,366 hectares) in size and ranks 32nd in area of the 54 watershed bioregions. It is mostly comprised of Castaic Lake (2,231 acres) that is fed by both Castaic Creek and Fish Creek, and the valley below it. Castaic Creek is the main drainage and flows into the Utom River.

The Castaic Valley bioregion mostly consists of marine sedimentary rocks, and its soils are composed of both Anacapa and Chaqua series in the Xerolls suborder. It is part of the Western Transverse Ranges.

The climate of the Castaic Valley bioregion is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 94°F and the average mean low temperature is 42°F. The average annual precipitation is 17-19 inches/431.8-482.6 mm.

About 60% of the land in the Castaic Valley is private, consisting of the reservoir, as well as large and small lots below the dam. Of the total acres, 4,642 acres are public with most being a part of the Castaic Lake State Recreation Area and the Angeles National Forest.

Castaic Valley Bioregion Location

Castaic Valley is located in the Castaic Creek watershed entirely in Los Angeles County. It is bordered by Warm Springs Mountain to the north, Red Mountain to the east, Utom River Valley to the south, and Whitaker Peak to the west. Figure 10, Map of Castaic Valley Bioregion, provides a map of Castaic Valley and illustrates the geography and topography of of this bioregion and where plant observations and voucher specimens were collected.

Castaic Valley Flora

The Castaic Valley bioregion flora contains approximately 291 taxa with an additional 8 taxa identified just to genus. CNPS observed a total of 85 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 4 waypoints. An average of 23 taxa were observed at each waypoint. Of these 85 taxa observed, 60 (70.6%) are native and 25 (29.4%) are non-native. This ratio of native to non-native plants is slightly lower than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012), most likely a result of the disturbed and developed nature of this bioregion.

A total of twenty-seven (27) vouchers were collected by Jordan Collins from the Castaic Valley bioregion, with another 98 plant observations made. CCH cites 862 vouchers, representing 345 taxa¹⁶, recorded from this bioregion prior to this study. Table 10, Consolidated Statistics of the Castaic Valley Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, Castaic Valley is primarily dominated by herblands and coastal sage scrub vegetation where it is not developed.

¹⁶ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.



Castaic Valley Flora Quick Stats			
CNPS	# Taxa Observed	85	
	# Vouchers Collected	27	
	# Waypoints	4	
ССН	# Taxa Reported ¹³	345	
	# Vouchers Collected	862	
Total # Taxa Reported for Bioregion		291	
Total # Vouchers Collected for Bioregion		889	

Table 10. Consolidated Statistics of the Castaic Valley Bioregion Flora

Castaic Valley Special-status Species

Castaic Valley provides habitat for ten (10) special-status species: Allium howellii var. clokeyi, Amsinckia douglasiana, Calochortus clavatus var. clavatus, C. clavatus var. gracilis, Calystegia peirsonii, Chorizanthe parryi var. fernandina, Harpagonella palmeri, Juncus acutus ssp. leopoldii, Phacelia hubbyi, and Pseudognaphalium leucocephalum.

Castaic Valley Habitats

Castaic Valley contains approximately eight (8) habitat types, composed of woodlands, shrublands, herblands, and rock outcrops. Habitats in this bioregion include Annual Herblands, Scalebroom Scrub, Coastal Sage Scrub, Chamise Chaparral, Cottonwood Woodlands, Sycamore Woodlands, talus slope communities, and Rock Outcrop.



Left: Annual herbland habitat on loamy slopes of Warm Springs Mountain in the northwest end of the bioregion. Herbland here is dominanted by nonnative Slender Wild Oats, *Avena barbata*. *Right*: Castaic Creek draining into Elderberry Forebay of Castaic Lake with Riparian vegetation dominanted by nonnative Saltcedar, *Tamarix ramosissima*. (Photos by Jordan Collins.)





Figure 11. Map of Castaic Valley Bioregion





Left: Mouth of Elderberry Canyon with Chaparral habitat on higher slopes and Coastal Sage Scrub on lower slopes dominanted by Purple Sage, *Salvia leucophylla*. *Right*: Unnamed drainage leading into Elderberry Forebay of Castaic Lake with Riparian Dry Wash elements dominanted by Scalebroom, *Lepidospartum squamatum*. (Photos by Jordan Collins.)



Above: Aerial imagery of widened flood plain fed by Castaic Lake just west of the steep Castaic Mesa. (Photo obtained from Google Earth 2022.)

Castaic Valley Recommendations

Castaic Valley exhibits a moderate to high diversity of native plants. It is mostly composed of moderate to gentle slopes and flats, much of which has been developed or disturbed since European colonization. Areas of the Castaic Valley bioregion that contains high species richness should be preserved. The Castaic Creek floodplain is a good example of area that should be protected.



DEL SUR RIDGE

The Del Sur Ridge bioregion (DSR) ranges from approximately 1,297 feet to 4,375 feet in elevation and is approximately 40,749 acres (16,491 hectares) in size and ranks 34th in area of the 54 watershed bioregions. It is mostly comprised of Haskal Canyon which drains into Bouquet Creek.

The geology of Del Sur Ridge is mostly marine sedimentary rock, while its soils are partially Gaviota series in the Orthents suborder and Baywoods in the Xerolls suborder. It is part of the Western Transverse Ranges.

The climate of the Del Sur Ridge is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 90°F and the average mean low temperature is 40°F. The average annual precipitation is 19 inches/482.6 mm.

Most of the land in the Del Sur Ridge is public, consisting of Forest Service land of the Angeles National Forest. Roughly 17%, or 7,060 acres, are privately owned.

Del Sur Ridge Bioregion Location

Del Sur Ridge is a long narrow ridge trending northeast-southwest and located between San Francisquito Creek and Bouquet Creek watersheds. It is bordered by Leona Valley (not a bioregion) to the north, the Bouquet Canyon bioregion is to the east and south, and the San Francisquito Canyon bioregion is to the west. Figure 11, Map of Del Sur Ridge Bioregion, illustrates the regional location and topography of this bioregion and where plant observations and voucher specimens were collected. It is located within Los Angeles County.

Del Sur Ridge is accessible via dirt roads and trails from San Francisquito Creek and Bouquet Canyons.

Del Sur Ridge Flora

The Del Sur Ridge bioregion flora contains approximately 267 taxa with an additional 35 taxa identified just to genus. CNPS observed a total of 254 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 43 waypoints. An average of 16 taxa were observed at each waypoint. Of these 254 taxa observed, 223 (87.8%) are native and 31 (12.2%) are non-native. This ratio of native to non-native plants is higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

A total of one hundred eighty (180) vouchers were collected, primarily by Jordan Collins, from the Del Sur Ridge bioregion for this study, with another 509 plant observations. CCH cites 140 vouchers, representing 98 taxa¹⁷, recorded by others for this bioregion prior to this study. Table 11, Consolidated Statistics of the Del Sur Ridge Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion. Overall, Del Sur Ridge is primarily dominated by chaparral vegetation.

¹⁷ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.





Figure 12. Map of Del Sur Ridge Bioregion



Del Sur Ridge Flora Quick Stats			
CNPS	# Taxa Observed	254	
	# Vouchers Collected	180	
	# Waypoints	43	
ССН	# Taxa Reported ¹⁴	98	
	# Vouchers Collected	140	
Total # Taxa Reported for Bioregion		267	
Total # Vouchers Collected for Bioregion		320	

Table 11. Consolidated Statistics of the Del Sur Ridge Bioregion Flora

Del Sur Ridge Special-status Species

Del Sur Ridge provides habitat for three (3) special-status species, including: *Calochortus clavatus* var. gracilis, Calystegia peirsonii, and Opuntia basilaris var. brachyclada.

Del Sur Ridge Habitats

Del Sur Ridge contains approximately seven (7) of habitat types, composed of woodlands, shrublands, herblands, and rock outcrops. This bioregion is dominated by Chamise Chaparral on xeric slopes. Riparian courses throughout the bioregion are dominated by Sycamore Woodland alongside Coast Live Oak Woodland existing on level benches hugging canyon walls. Habitats in this bioregion include Chamise Chaparral, Scrub Oak Chaparral, Oak Woodland, Sycamore Woodland, Scalebroom Scrub, Rock Outcrop, and Talus Slope Communities.



Left: Chaparral habitat along Del Sur Ridge dominated by Chamise, Adenostoma fasciculatum var. fasciculatum, and Our Lord's Candle, Hesperoyucca whipplei. Right: Chaparral habitat on the north face of Jupiter Mountain dominated by several oak species including Bush Interior Live Oak, Quercus wislizeni var. frutescens, and Canyon Live Oak, Quercus chrysolepis. Many annual forbs make use of breaks in chaparral vegetation such as the Hispid Caterpillar Phacelia, Phacelia cicutaria var. hispida, shown here. (Photos by Jordan Collins.)




Left: Chaparral habitat along Leona Divide on the northeast end of the bioregion. The chaparral here is dominated by Chamise, *Adenostoma fasciculatum* var. *fasciculatum*. *Right*: Rocky riparian course of Bee Canyon with sparse riparian vegetation. (Photos by Jordan Collins.)

Del Sur Ridge Recommendations

Del Sur Ridge exhibits a moderate diversity of native plants. It is mostly composed of steep slopes that would be highly susceptible to erosion. Open space uses predominate and should be protected from development.

DRY LAKES RIDGE

The Dry Lakes Ridge bioregion (DLR) ranges from approximately 1,988 feet to 5,042 feet in elevation and is approximately 12,439 acres (5,034 hectares) in size and ranks 40th compare to the 54 watershed bioregions. It is an eastwest-trending anticlinal ridge in the center west of Ventura County dividing the Sespe Creek and Ventura River watersheds. The photo on the right shows the steeply inclined sandstone beds on the north side of the anticline, along State Route 33.

The area that includes the summit has been designated as a Botanical Area by the U.S. Forest Service in part as a result of the study published by Magney (1986) through the University of California, Santa Barbara Herbarium. The unique feature of this ridge are the summit basins (dry lakes) that supported a Pleistocene era recticual stand of Ponderosa Pine (*Pinus*)



ponderosa) occurring at an extraliminal levevation (lower than otherwise found in southern California). A trail used to connect the summit basins with SR33 on the east end and the Ortega Trail to the west; however, the U.S. Forest Service abandoned the trail and the two trail campsites in the 1970s. The "trail" is now only maintained when a wildfire occurs in the area and bulldozers re-establish the trail for firefighting purposes.





It is a very steep hike up the east side from SR 33 until the ridgetop, as seen in the photograph above left (by David Magney).

The climate of the Dry Lakes Ridge is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 82°F and the average mean low temperature is 32.6°F, with the highest and lowest recorded temperatures at 91°F and 22°F. The average annual precipitation is 31 inches/787.5 mm, with the summit basins receiving 44.0 and 45.8 inches (1,117.6 and 1,163.3 mm) during the 1982-1983

rain year, an anomalous year (Magney 1986). It is likely that the maximum temperature on the summit of Dry Lakes Ridge has risen since temperatures were monitored, as a result of global warming.

Dry Lakes Ridge Bioregion Location

Dry Lakes Ridge divides the Sespe Creek and Ventura River watersheds. It is bordered by the Ortega Hill bioregion to the west and northwest, the Middle Sespe Creek bioregion to the north, the Rose Valley bioregion to the east, the Pollard Point bioregion to the southeast, and the North Fork Matilija Canyon bioregion (not a part of this study) the south. Dry Lakes Ridge is an east-west-trending ridge with steep south and north slopes and four fault-related depressions (basins) on the summit. These basins are numbered 1A, 1B, 1C, 2A, 2B, 3, and 4, from east to west, as illustrated on the aerial photograph below. (Magney 1986.)





It is mostly comprised of the ridge and a northern slope that drains into the Sespe Creek and a south-facing slope that drains into North Fork Matilija Creek (a major Ventura River tributary). Its geology is almost completely made up of marine sedimentary rocks forming an anticline, and its soils are a mix of Lodo and Aramburu, both in the Xerolls suborder. Dry Lakes Ridge is part of the Western Transverse Ranges.

Nearly all of the land that includes Dry Lakes Ridge is public, entirely within the Ojai District of the Los Padres National Forest, with a Caltrans ROW for SR33. Only 83 acres of land is held privately in this bioregion.

Dry Lakes Ridge is accessed by SR33 that traverses the south, east, and north sides of the bioregion. An unmaintained trail traverses the ridge from east to west, connecting with the Ortega Hill Trail to the west, and SR 33 on the east.

Figure 12, Map of Dry Lakes Ridge Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

Dry Lakes Ridge Flora

The Dry Lakes Ridge bioregion flora contains approximately 343 taxa with 1 additional taxon identified just to genus. Dry Lakes Ridge contains slopes dominated by chaparral species. The ridgetop basins are dominated by *Artemisia tridentata*, and previously by *Pinus ponderosa*. CNPS observed a total of 18 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 1 waypoint. A total of 18 taxa were observed at this waypoint. Of the 374 vascular plant taxa documented, 333 (89.0%) are native and 41 (11.0%) are non-native. This ratio of native to non-native plants is significantly higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012). This is almost certainly due to the relatively undisturbed condition of this bioregion.

One (1) voucher specimen was collected from Dry Lakes Ridge as part of this study, knowing that it had already been thoroughly vouchered as part of Magney's research on the flora of Dry Lakes Ridge in the early 1980s (Magney 1986). CCH cites 718 vouchers, representing 361 taxa¹⁸, recorded by others for this bioregion prior to this study. Table 12, Consolidated Statistics of the Dry Lakes Ridge Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Magney (1986) documented the number of mature and sapling *Pinus ponderosa* trees occurring in the summit basins, representing a relictual stand from the Pleistocene. Since 1986, as a result of increasing drought from global warming and large human-caused wildfires that burned the summit of Dry Lakes Ridge, all the *P. ponderosa* have died, changing the iconic character of the summit basins. The photograph below shows the *P. ponderosa* trees in Basins 3 and 4 (the westernmost summit basins) as they were in October 2001. The vegetation around the summit basins is primarily Montane Chaparral dominated by *Arctostaphylos glandulosa* var. *glandulosa* and *A. glandulosa* var. *mollis*.

¹⁸ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.





Figure 13. Map of Dry Lakes Ridge Bioregion



Dry Lakes Ridge Flora Quick Stats		
CNPS	# Taxa Observed	18
	# Vouchers Collected	1
	# Waypoints	1
ССН	# Taxa Reported ¹⁹	374
	# Vouchers Collected	718
Total # Taxa Reported for Bioregion		343
Total # Vouchers Collected for Bioregion		719

Table 12. Consolidated Statistics of the Dry Lakes Ridge Bioregion Flora



Above: View westward of relictual *Pinus ponderosa* trees in Basins 3 and 4 (the westernmost summit basins) as they were in October 2001 prior to being burned by the Thomas Fire of late 2017. (Photo by David Magney.)

Dry Lakes Ridge Special-status Species

Thirteen (13) special-status species were observed on Dry Lakes Ridge: Calochortus catalinae, C. fimbriatus, Caulanthus lemmonii, Cryptantha rattanii, Eriogonum elegans, Galium cliftonsmithii, Juglans californica, Phacelia hubbyi, Pseudognaphalium leucocephalum, Rhinotropis cornuta var. fishiae, Romneya coulteri, Thermopsis californica var. argentata (CBR), and T. macrophylla var. macrophylla.

¹⁹ Modified and documented by Magney's personal files on plants of Dry Lakes Ridge.



Dry Lakes Ridge Habitats

Dry Lakes Ridge contains approximately six (6) of habitat types, composed of woodlands, shrublands, herblands, and rock outcrops. The primary vegetation type is chaparral on the slopes. Pockets of Bigcone Spruce Forest (*Pseudotsuga macrocarpa-Quercus chrysolepis* Forest Alliance) occur on the upper edges of the north-facing slopes on the north side of the east-west-trending ridge.



The panorama above views Basin 3 on the top of Dry Lakes Ridge, looking eastward. This fault-associated depression is dominated by an herbland and scattered *Pinus ponderosa*, Ponderosa Pine, until all the pine trees died from human-caused wildfires and extended drought. (Photo by David Magney.)



Left: View northward of south-facing slope, dominated by Chamise and Ceanothus dominated chaparral. *Right*: Bigcone Spruce Forest dominated by Pseudotsuga macrocarpa near the top of the ridge on the north side just below Basin 2A, surrounded by mixed chaparral. (Photos by David Magney.)



Left: View westward from summit towards easternmost basin (Basins 1A & 1B) containing a relictual stand of Ponderosa Pine, *Pinus ponderosa*, and Great Basin Sagebrush, *Artemisia tridentata* var. *tridentata*, surrounded by montane chaparral. *Right*: view eastward of Basin 1C. (Photos by David Magney.)





Left: View of Basin 2B with Ponderosa Pine and Great Basin Sagebrush. *Right* view southeast of Basin 3, the largest of the summit basins, with mature Ponderosa Pine and forbs and grasses. (Photos by David Magney.)

Dry Lakes Ridge Recommendations

Dry Lakes Ridge exhibits a high diversity of native forbs with the former relictual population of Ponderosa Pine, with this are designated as a Botanical Area. Construction or maintenance of firebreaks on the ridgetop needs to avoid soil disturbance in the ridgetop basins.

FRAZIER MOUNTAIN

Frazier Mountain bioregion (FM) ranges from approximately 3,873 feet to 8,029 feet in elevation and is approximately 40,004 acres (16,189 hectares) in size and ranks 17th among the 54 bioregions of the watershed. It is one of the highest mountains in the watershed, located on the northern edge of the watershed with the north slope draining northward outside the watershed. It is part of the Western Transverse Ranges.

It is composed primarily of Precambrian gneiss and granitic rock. A majority of its soils are Xerolls in both the Mahogan and Los Gatos series. Most of the mountain is in Ventura County with the northern slope in Kern County, outside the watershed.

Most of the land comprising the Frazier Mountain bioregion is public and part of the Los Padres National Forest. The Mount Pinos Ranger District office (Chuchupate) is located at the northwest foot of the mountain. A few small to large lots and small ranches occur primarily within the lower elevations of the bioregion making up roughly 1,767 acres in total.

The climate of Frazier Mountain is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 76-88°F and the average mean low temperature is 30°F. The average annual precipitation is 23-35 inches/558-889 mm. Snow covers the summit for much of the winter months, when it snows, as seen in the photo to the right.

The ruins of an old fire lookout tower stands on the peak, next to an array of communications towers and weather station.







Left: remains of an old fire lookout station that has been abandoned since the late 1980s. *Right*: view eastward from the fire lookout station. Photos by David Magney.

Frazier Mountain Bioregion Location

Frazier Mountain is located in the Piru Creek watershed. It is bordered by the San Emigdio Mountains and intervening lower Cuddy Valley to the north, Hungry Valley to the east, Upper Middle Piru Creek and Gold Hill to the south, and Chuchupate and Lockwood Valleys to the west. Figure 13, Map of Frazier Mountain Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

Frazier Mountain can be accessed through Forest Service Road 8N04 via Lockwood Valley Road. This Forest Service road leads to the summit of Frazier Mountain.

Frazier Mountain Flora

The Frazier Mountain flora contains approximately 366 taxa with an additional 31 taxa identified just to genus. CNPS observed a total of 208 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 38 waypoints. An average of 14.4 taxa were observed at each waypoint. Of these 208 taxa observed, 197 (94.7%) are native and 11 (5.3%) are non-native. This ratio of native to non-native plants is significantly higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

A total of ninety-five (95) vouchers were collected from Frazier Mountain, primarily by David Magney, as part of this study, with another 497 plant observations. CCH cites 326 vouchers, representing 213 taxa²⁰, recorded by others from this bioregion prior to this study. Table 13, Consolidated Statistics of the Frazier Mountain Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, Frazier Mountain is primarily dominated by Jeffrey Pine Forest and Pinyon-Juniper Woodland, with montane chaparral on the lower slopes.

²⁰ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.





Figure 14. Map of Frazier Mountain Bioregion



Frazier Mountain Flora Quick Stats		
CNPS	# Taxa Observed	208
	# Vouchers Collected	95
	# Waypoints	38
ССН	# Taxa Reported ¹⁶	213
	# Vouchers Collected	326
Total # Taxa Reported for Bioregion		366
Total # Vouchers Collected for Bioregion		421

Table 13. Consolidated Statistics of the Frazier Mountain Bioregion Flora

Frazier Mountain Special-status Species

A total of twenty-one (21) special-status species are known to occur on Frazier Mountain; including: Acanthomintha obovata var. cordata, Allium howellii var. clokeyi, A. howellii var. howellii, Astragalus leucolobus, Calochortus palmeri var. palmeri, Diplacus johnstonii, Eriogonum kennedyi var. austromonatum, Eriophyllum confertiflorum var. tanacetiflorum, Fritillaria agrestis, Fritillaria pinetorum, Hulsea vestita ssp. gabrielensis, H. vestita ssp. parryi, Lessingia tenuis, Lupinus elatus, Monardella linoides ssp. oblonga, Navarretia peninsularis, Nemacladus secundiflorus var. robbinsii, Perideridia pringlei, Phacelia exilis, P. mohavensis, and Thermopsis californica var. argentata (CBR).

Frazier Mountain Habitats

Frazier Mountain contains approximately six (6) of habitat types, composed of forests, woodlands, shrublands, herblands, and rock outcrops. The upper slopes and summit of Frazier Mountain above 5,000 feet is dominated by Jeffrey Pine Forest (*Pinus jeffreyi* Forest Alliance). The rest is dominated by Pinyon-Juniper Woodland (*Pinus monophylla-Juniperus californica-Quercus john-tuckeri* Woodland Alliance) and Desert Scrub Oak Chaparral (*Quercus john-tuckeri-Ceanothus leucodermis/Arctostaphylos parryana* Shrubland Alliance).



Left: Pinyon-Juniper Woodland with Yellow Pine Forest on the upper west-facing slopes of Frazier Mountain. *Right:* Open areas of Yellow Pine Forest dominated by Great Basin Sagebrush Scrub. (Photos by David Magney.)





Left: West slope of Frazier Mountain dominated by open Yellow Pine Forest. *Right*: Yellow Pine Forest opening dominated by mat-forming shrubs of *Eriogonum wrightii* var. *subscaposum* and *E. kennedyi* vars. (Photos by David Magney.)



Left: Yellow Pine Forest with *Symphoricarpos rotundifolia* var. *parishii* understory and *Artemisia tridentata* vars. in forest openings. *Right: Juncus/Carex* wet meadow on west slope of Frazier Mountain. (Photos by David Magney.)



Left: Artemsia tridentata vars. in forest openings on ridgetop. *Center*: Matriarch *Pinus jeffreyi* on summit. *Right*: Open areas of west slope of Frazier Mountain dominated by *Artemisia tridentata*, Great Basin Sagebrush, and *Eriogonum umbellatum* var. *munzii* (the yellow-flowered shrubs). (Photos by David Magney.)



Frazier Mountain Recommendations

Frazier Mountain exhibits a high diversity of native forbs but is also heavily dominated by nonnative annual forbs grasses. The single occurrence of *Perideridia pringlei* will likely not be harmed by appropriately managed grazing.

Road and trail maintenance has the potential to adversely affect *Allium howellii* var. *clokeyi* and *Monardella linoides* ssp. *oblonga* that occur along Forest Service roads and trails. One population of *Arctostaphylos kennedyi* var. *austromontanum* next to an outlaw camp could also be affected OHV or road maintenance activities.

GOLD HILL

Gold Hill bioregion (GH) ranges from approximately 3,131 feet to 4,786 feet in elevation and is approximately 6,196 acres (2,507 hectares) in size and ranks 50th in area of the 54 bioregions in the watershed. It is a relatively small series of ridges between taller mountains and valleys located within the Piru Creek watershed. There are two named drainages in the Gold Hill bioregion, Dry Creek/Bear Gulch on the east and Trail Canyon on the south flank, both of which flow into Piru Creek on the south side of Gold Hill. This bioregion has two named peaks, Gold Hill and Bear Mountain. It is part of the Western Transverse Ranges.

Its geology is both marine and nonmarine sedimentary rock, primarily igneous Adamilite Granite and Precambrian gneiss. The soils are mostly composed of Chino in the Xerolls suborder.

The climate of Gold Hill is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 90°F and the average mean low temperature is 34°F. And the average annual precipitation is 16 inches/406 mm, some of which falls as snow.

All of the land in the Gold Hill is public, all within the Mount Pinos District of the Los Padres National Forest.

Gold Hill Bioregion Location

Gold Hill is located within the Piru Creek watershed. It is bordered by the Frazier Mountain bioregion to the north, the Hungry Valley bioregion to the east, the Upper Middle Piru Creek bioregion to the south, and the Upper Piru Creek bioregion to the southwest. It is mostly comprised of Bear Mountain to the east and Gold Hill to the west. Figure 14, Map of Gold Hill Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

Two Forest Service campgrounds occur within this bioregion: Gold Hill at the southwestern corner on the north bank of Piru Creek and Kings Camp north of Gold Hill Mountain. A spring/seep is present at the east end of Kings Camp. Forest Service Route 18N01/Gold Hill Road is the only road servicing this bioregion.

Gold Hill Flora

The Gold Hill bioregion flora contains approximately 144 taxa with an additional 21 taxa identified just to genus. Gold Hill contains slopes dominated by Pinyon-Juniper Woodland, primarily by *Pinus monophylla*, Singleleaf Pinyon Pine. The rest is dominated by arid associations of chaparral.

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Figure 15. Map of Gold Hill Bioregion

CNPS observed a total of 127 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 35 waypoints. An average of 12.2 taxa were observed at each waypoint. Of these 127 taxa observed, 123 (96.9%) are native and 4 (3.1%) are non-native.



This ratio of native to non-native plants is significantly higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

A total of twenty-five (25) vouchers were collected from Gold Hill, primarily by David Magney, Adam Hoeft, and Jonathon Holguin, as part of this study, with another 404 plant observations. CCH cites 79 vouchers, representing 60 taxa²¹, recorded by others from this bioregion prior to this study. Table 14, Consolidated Statistics of the Gold Hill Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Gold Hill exhibits a relatively low to moderate plant species richness of native plants, primarily a function of its relatively small size. Additional field surveys, in particular in areas not already surveyed, are warranted and will likely find additional taxa.

Overall, Gold Hill is primarily dominated by Tucker Oak Chaparral, Great Basin Sagebrush Scrub, and Pinyon-Juniper Woodland²².

Gold Hill Flora Quick Stats		
CNPS	# Taxa Observed	127
	# Vouchers Collected	25
	# Waypoints	35
ССН	# Taxa Reported ¹⁸	60
	# Vouchers Collected	79
Total # Taxa Reported for Bioregion		144
Total # Vouchers Collected for Bioregion		104

Table 14. Consolidated Statistics of the Gold Hill Bioregion Flora

Gold Hill Special-status Species

A total of one (1) special-status species is known to occur in Gold Hill: *Eriophyllum* confertiflorum var. tanacetiflorum.

Gold Hill Habitats

Gold Hill contains approximately seven (7) habitat types, composed of woodlands, shrublands, herblands, and rock outcrops. The dominant vegetation of the Gold Hill bioregion is Pinyon-Juniper Woodland (*Pinus monophylla-Juniperus californica* Woodland Alliance), with large areas of Great Basin Sagebrush (*Artemisia tridentata* Shrubland Alliance). Active floodplains of this bioregion are dominated by Scalebroom Scrub (*Lepidospartum squamatum* Shrubland Alliance).

²¹ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.

²² The areas dominated by dense shrubs were not surveyed as thoroughly as the herbland (grassland) areas, due to difficulty of access.





Left: steep eroded bank and floodplain of Dry Creek on east side of Gold Hill dominated by Scalebroom Scrub (*Lepidospartum squamatum* Shrubland Alliance). *Right*: alluvial floodplain area dominated by Great Basin Sagebrush (*Artemisia tridentata* Shrubland Alliance). (Photos by David Magney.)



Left: View westward of Great Basin Sagebrush Scrub and Pinyon-Juniper Woodland on the slopes of the Gold Hill bioregion. *Right*: John Tucker Oak Scrub occurs on the slopes as well, often a part of the Pinyon-Juniper Woodland. (Photos by David Magney.)



Above, three examples of typical Pinyon-Juniper Woodland habitat in the Gold Hill bioregion, with patches of *Arctostaphylos parryana* as well. (Photos by David Magney.)



Gold Hill Recommendations

Off road vehicle activity is high here, in close proximity to the Hungry Valley State Vehicle Recreation Area and Forest Service OHV trails in the area. Unauthorized OHV activity can, and has, damaged the natural habitats in this bioregion and needs to be controlled.

HUNGRY VALLEY

The Hungry Valley bioregion (HV) ranges from approximately 2,808 feet to 5,461 feet in elevation and is approximately 20,029 acres (8,105 hectares) in size and ranks 33rd in area of the 54 watershed bioregions. It is characterized as a broad valley trending south-southeastward along the Ventura-Los Angeles County line with steep eroded slopes. Hungry Valley is mostly comprised of the main valley which drains southeast into Piru Creek at Pyramid Lake.

Its geology is non-marine sedimentary rock, and its soils are composed of Chino in the Xerrolls suborder. It is part of the Western Transverse Ranges.

The climate of the Hungry Valley bioregion is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 90°F and the average mean low temperature is 35°F. The average annual precipitation is 15 inches/381 mm.

Most of the land in the Hungry Valley is public, with a majority of that consisting of the Hungry Valley State Vehicular Recreation Area (SVRA). Only about 98 acres of land are small private lots.

Hungry Valley Bioregion Location

Hungry Valley is its own basin and flows southeast draining into the middle reach of Piru Creek a short distance upstream of Pyramid Lake. It is bordered by San Andreas Rift Zone and Tejon Pass to the north (both outside the Utom watershed), Peace Valley bioregion to the east, Upper Middle Piru Creek bioregion to the south, and Gold Hill and Frazier Mountain bioregions to the west. Figure 15, Map of Hungry Valley Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

The Hungry Valley bioregion is accessed from two directions, one from just west of Gorman via Hungry Valley Road and from the southeast via the south end of Hungry Valley Road off I-5. Most of Hungry Valley is part of the Hungry Valley SVRA, operated by California Department of Parks and Recreation. As a result, much of the bioregion is crossed by dirt roads and trails.

Hungry Valley Flora

The Hungry Valley bioregion flora contains approximately 201 taxa with an additional 7 taxa identified just to genus. CNPS observed a total of 42 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 4 waypoints. An average of 14.5 taxa were observed at each waypoint. Of these 42 taxa, 39 (92.9%) are native and 3 (7.1%) are non-native. The Hungry Valley bioregion flora contains 191 native taxa (96.0%) and 8 naturlized taxa (4.0%). This ratio of native to non-native plants is significantly higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012), representing an almost pure native flora, which is amazing considering this bioregion was entirely managed as ranch land and now as a off road vehicle recreation lands.





Figure 16. Map of Hungry Valley Bioregion



No vouchers were collected from Hungry Valley as part of this study due to lack of permits from the State Parks system. However, 58 plant observations were made by David Magney. CCH cites 263 vouchers, representing 175 taxa²³, recorded by others from this bioregion prior to this study. Table 15, Consolidated Statistics of the Hungry Valley Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, Hungry Valley is primarily dominated by Rabbitbrush Scrub and Great Basin Sagebrush Scrub²⁴.

Hungry Valley Flora Quick Stats		
CNPS	# Taxa Observed	42
	# Vouchers Collected	_25
	# Waypoints	4
ССН	# Taxa Reported ²⁰	175
	# Vouchers Collected	263
Total # Taxa Reported for Bioregion		201
Total # Vouchers Collected for Bioregion		263

Table 15. Consolidated Statistics of the Hungry Valley Bioregion Flora

Hungry Valley Special-status Species

Five (5) special-status plants were observed or documented as occurring in the Hungry Valley bioregion, including: *Calochortus clavatus* var. *clavatus, Hesperocyparis nevadensis* (not observed by CNPS, vouchered by Pam De Vries in 2017), *Mentzelia ravenii,* and *Nemacladus secundiflorus* var. *robbinsii*, and *Opuntia basilaris* var. *brachyclada*.

Hungry Valley Habitats

Hungry Valley contains approximately six (6) habitat types, composed of woodlands, shrublands, herblands, and rock outcrops. Woodland habitats include Pinyon-Juniper Woodland (*Pinus monophylla-Juniperus californica* Woodland Alliance). Shrubland habitats of the bioregion include Great Basin Sagebrush (*Artemisia tridentata* Shrubland Alliance), Scalebroom Scrub (*Lepidospartum squamatum* Shrubland Alliance), Rabbitbrush Scrub (*Ericameria nauseosa* Shrubland Alliance).

²³ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.

²⁴ The areas dominated by trees and shrubs were not surveyed as thoroughly as the herbland (grassland) areas, due to difficulty of access.

²⁵ Since Calif. Dept. of Parks & Recreation were concurrently documenting the flora of the Hungry Valley SVRA, CNPS did not obtain collection permits and did not collect any vouchers as part of this study.





Left: View of Hungry Valley as seen from the top of Frazier Mountain to the west. *Right*: California Juniper Woodland and Great Basin Sagebrush Scrub habitats dominate the slopes and canyons of this bioregion. (Photo by David Magney.)



Left: Great Basin Sagebrush Scrub and Juniper Woodland habitats dominate the slopes and canyon bottoms such as here in Fresno Canyon. *Right*: John Tucker Oak Scrub vegetation dominates some slopes. (Photo by David Magney.)



Left: View westward of typical habitats of western portion of Hungry Valley with Pinyon-Juniper Woodland on the arid slopes. *Right*: View southeast of typical vegetation of the valley dominated by *Eriogonum fasciculatum* var. *polifolium* and forbs and grasses. (Photo by David Magney.)





Left: View eastward of valley bottom dominated by *Eriogonum fasciculatum* and *Hesperoyucca whipplei*. *Right*: View southward of Great Basin Sagebrush (*Artemisia tridentata* var. *tridentata*) and Rubber Rabbitbrush (*Ericaerica nauseosa* varieties) are also dominant shrubs of the valley. (Photo by David Magney.)

Hungry Valley Recommendations

Hungry valley exhibits a moderate diversity of plants. Hungry Valley bioregion is mostly comprised of the Hungry Valley State Vehicular Recreation Area offering several different recreational activities that people enjoy including hiking, camping, and off-road driving. Use of off-road vehicles is the biggest threat to the sensitive species that live in this bioregion. In particular, *Opuntia basilaris* var. *brachyclada* is especially vulnerable to being trampled or run over by a vehicle due to their low stature that is sometimes difficult to see. Documented occurrences of sensitive species like this should be protected with an exclosure in an effort to conserve them. In addition to protecting rare plant species, certain areas of the state park could be grazed by cattle to help curb populations of invasive plant species.

LIEBRE MOUNTAIN

The Liebre Mountain bioregion (LM) ranges from approximately 2,021 feet to 5,783 feet in elevation and is approximately 39,759 acres (16,090 hectares) in size and ranks 18th in area of the 54 watershed bioregions. Liebre Mountain is the namesake and dominant geographic feature of this bioregion. This bioregion is mostly comprised of Liebre Mountain and Salt Creek, which drains into Castaic Creek.

Its geology varies significantly, being made up of both plutonic and nonmarine sedimentary rocks. The soils are also complex, being composed of Chaqua of the Xerepts suborder and Baywood of the Xerolls suborder. It is part of the Western Transverse Ranges.

The climate of Liebre Mountain is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 87°F and the average mean low temperature is 36°F. The average annual precipitation is 17-26 inches/431-660 mm. Snow falls on the higher elevation areas of Liebre Mountain during the winter months.

The vast majority of the land in the Liebre Mountains is public, with most being a part of the Angeles National Forest. The 2,225 acres of private land consists of small to large lots and small ranches located on the north slope of the mountains.



Liebre Mountain Bioregion Location

The Liebre Mountain bioregion is located in the larger Castaic Creek watershed but contains all of Salt Creek. It is bordered by the Portal Ridge bioregion to the north, the Sawmill Mountain bioregion to the east, the Red Mountain and Ridge Route Ridge bioregions to the south, and the Bald Mountain bioregion to the west.

Liebre Mountain is accessible around its perimeter via paved roads and numerous Forest Service dirt roads and hiking trails. Liebre Mountain Road/Forest Service Route 7N23 traverses the bioregion from west to east when open. Figure 16, Map of Liebre Mountain Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

Liebre Mountain Flora

The Liebre Mountain bioregion flora contains approximately 502 taxa with an additional 23 taxa identified just to genus. CNPS observed a total of 179 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 21 waypoints. An average of 17.9 taxa were observed at each waypoint. Of these 179 taxa observed, 161 (89.9%) are native and 18 (10.1%) are non-native. This ratio of native to non-native plants is higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

A total of sixty-three (63) vouchers were collected from Liebre Mountain, primarly by Jordan Collins and some by David Magney, as part of this study, with another 313 plant observations. CCH cites 1,076 vouchers, representing 489 taxa²⁶, are recorded from this bioregion prior to this study. Table 16, Consolidated Statistics of the Liebre Mountain Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, Liebre Mountain is primarily dominated by chaparral, shrublands, and herblands²⁷.

Liebre Mountain Flora Quick Stats		
CNPS	# Taxa Observed	179
	# Vouchers Collected	63
	# Waypoints	21
ССН	# Taxa Reported ²²	489
	# Vouchers Collected	1,076
Total # Taxa Reported for Bioregion		502
Total # Vouchers Collected for Bioregion		1,139

Table 16. Consolidated Statistics of the Liebre Mountain Bioregion Flora

²⁶ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.

²⁷ The areas dominated by trees and shrubs were not surveyed as thoroughly as the herbland (grassland) areas, due to difficulty of access.

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Figure 17. Map of Liebre Mountain Bioregion



Liebre Mountain Special-status Species

Ten (10) special-status plants were observed or documented as occurying in this bioregion, including: *Calochortus clavatus* var. *clavatus*, *C. clavatus* var. *gracilis, Calystegia peirsonii, Castilleja gleasoni, Delphinium parryi* ssp. *purpureum, Eriastrum sparsiflorum, Eriophyllum confertiflorum* var. *tanacetiflorum, Gilia latiflora* ssp. *cuyamensis, Perideria pringlei,* and *Thermopsis californica* var. *argentata*.

Liebre Mountain Habitats

Liebre Mountain contains approximately sixteen (16) habitat types, composed of woodlands, shrublands, herblands, and rock outcrops. Habitats in this bioregion include talus slope communities, Cottonwood Riparian Woodland, Canyon Live Oak Woodland, Blue Oak Woodland, Black Oak Woodland, Tucker Oak Chaparral, Scrub Oak Chaparral, Chamise Chaparral, California Buckwheat Scrub, Foothill Pine Woodland, Bigcone Spruce Forest, Rush Meadow, Herblands, Northern Black Walnut Woodland, Chenopod Scrub, and Rock Outcrops.



Left: Pyramid Lagoon at the south end of Liebre Gulch. The shorelines here are dominated by several species of willow (*Salix* spp.), Fremont Cottonwood, *Populus fremontii* ssp. *fremontii*, and Narrowleaf Cattail, *Typha domingensis*. *Right*: Talus slope along Old Ridge Route displaying annual forbs and colorful subshrubs. (Photos by Jordan Collins.)



Left: Deep alluvial plain near Knapp Ranch about the south face of Liebre Mountain. The vegetation here is dominated by Californica Wild Buckwheat, *Eriogonum fasciculatum* var. *polifolium*. *Right*: Annual herbland along the south face of Liebre Mountain producing a colorful display of California Poppy, *Eschscholzia californica*. (Photos by Jordan Collins.)



Liebre Mountain Recommendations

The Liebre Mountain bioregion is managed primarily by the Angeles National Forest for recreation by providing dirt roads and trails for OHV and hikers. The Pacific Crest Trail passes through Liebre Mountain, which has a relatively high level of use. Habitats and rare plants of this bioregion need to be protected from incompatible uses.

LOCKWOOD VALLEY

The Lockwood Valley bioregion (LV) ranges from approximately 4,574 feet to 6,312 feet in elevation and is approximately 39,759 acres (16,090 hectares) in size and ranks 21st in area of the 54 bioregions in the watershed. It is mostly comprised of the Lockwood Valley which drains into Piru Creek via Lockwood Creek and its tributaries that drain Mount Pinos and the southwest slope of Frazier Mountain.

Its geology is mostly made up of nonmarine-sedimentary rock, but its soils are a mix of Xerolls of the Oak Glen series and Xeralfs of the Hilt series. It is part of the Western Transverse Ranges.

The climate of Lockwood Valley is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 88°F and the average mean low temperature is 24°F. The average annual precipitation is 25 inches/635 mm. Snow regularly falls during the winter months but rarely lasts long on the ground.

The land in Lockwood Valley is split 60/40 between public and private ownership. The 19,105 acres of public land almost exclusively consist of Forest Service land from the Los Padres National Forest. The 14,097 acres of private land consists of small to large lots and small to large ranches, as well as a large quarry in operation that mines specialty clays and minerals.

Lockwood Valley Bioregion Location

Lockwood Valley is located entirely in the Lockwood Creek watershed. It is bordered by the Mount Pinos bioregion to the northwest, the Frazier Mountain bioregion the east, and the San Guillermo Mountain and Upper Piru Creek bioregions to the south. Figure 17, Map of Lockwood Valley Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

The land in the Lockwood Valley bioregion is split 60/40 between public and private ownership. The 19,105 acres of public land almost exclusively consists of Forest Service land from the Los Padres National Forest. The 14,097 acres of private land consists of small to large lots and small to large ranches, as well as a large quarry in operation.

Lockwood Valley Flora

The Lockwood Valley flora contains approximately 375 taxa, all of which are identified to species at the minimum. CNPS observed a total of 20 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 3 waypoints. A total of 7 and 11 taxa were observed at these waypoints. Of these 408 taxa known to occur in the Lockwood Valley bioregion, 396 (96.8%) are native and 13 (3.2%) is non-native. This ratio of native to non-native plants is significantly higher than the rest of California, which has about 75% native



and 25% non-native (Baldwin et al. 2012), indicating that the Lockwood Valley bioregion flora is nearly pristine. This being the case regardless of the long history of grazing since the late 1880s.



Figure 18. Map of Lockwood Valley Bioregion

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Ten (10) vouchers were collected from this bioregion as part of this study plus 18 plant observations (including 1 bryophyte) were made by David Magney. CCH cites 891 vouchers, representing 405 taxa²⁸, recorded by others from this bioregion prior to this study. Magney made 8 collections in 1994, 2 in 2001, and 14 in 2003, plus numerous observations during that time span. Table 17, Consolidated Statistics of the Lockwood Valley Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, Lockwood Valley is primarily dominated by Herblands and Great Basin Sagebrush Scrub, dominated by *Artemisia tridentata* ssp. *tridentata*.

Lockwood Valley Flora Quick Stats		
CNPS	# Taxa Observed	20
	# Vouchers Collected	10
	# Waypoints	3
ССН	# Taxa Reported ²⁴	409
	# Vouchers Collected	891
Total # Taxa Reported for Bioregion		375
Total # Vouchers Collected for Bioregion		891

Table 17. Consolidated Statistics of the Lockwood Valley Bioregion Flora

Lockwood Valley Special-status Species

Lockwood Valley is habitat to thirty-six (36) special-status species, including: Acanthomintha obovata var. cordata, Acanthoscyphus parisii var. abramsii, Allium howellii var. clokeyi, Astragalus lentiginosus var. sierrae, A. macrodon (possibly), Delphinium gypsophilum ssp. gypsophilum, D. inopinum, D. parryi ssp. purpureum, Eriogonum elegans, E. kennedyi var. austromontanum, E. umbellatum var. bahiiforme, Erythronium revolumtum, Eschscholzia hypecoides, E. lemmonii ssp. kernensis, Fimbristylis termalis, Frasera neglecta, Fritillaria agrestis, F. pinetorum, Gilia latiflora ssp. cuyamaensis, G. leptantha ssp. pinetorum, Layia heterotricha, Leptosiphon aureus, Lessingia tenuis, Lupinus albifrons var. johnstonii, L. elatus, Monardella linoides ssp. oblonga, Mucronea californica var. californica, Navarretia peninsularis, Nemacladus gracilis, N. secudiflorus var. robbinsii, Perideridia pringlei, Phacelia exilis, Pseudognaphalium leucocephalum, Sidalcea neomexicana, Trichostema micranthum, and Viola purpurea ssp. grisea.

This high number of special-status species is an indication of the unique and varied habitats, driven primarily by substrate, that sets the Lockwood Valley bioregion as an important area of the watershed for botanical resources.

²⁸ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.



Lockwood Valley Habitats

Lockwood Valley contains approximately three general habitat types, composed of woodlands, shrublands, and herblands. Lockwood Valley contains heavy and deep soils (Lockwood Valley Clay) dominated by herbaceous plants. Several ephemeral streams flow through Lockwood Valley originating primarily from the southern slopes of Mount Pinos to the northwest. There are several large shallow vernal pools in Lockwood Valley dominated by therophytes and geophytes. There is also at least one large wet meadow area near the center of Lockwood Valley just south of Stauffer dominated by *Juncus mexicanus*.

The plains of Lockwood Valley are predominantely Great Basin Sagebrush Scrub dominated by *Artemisia tridentata*. The slopes around the valley are dominated by Pinyon-Juniper Woodland consisting of *Pinus monophylla*, *Juniperus californica*, *Quercus john-tuckeri*, *Arctostaphylos parryana*, and *Cercocarpus betuloides*. Flats and slopes with heavy Lockwood Clay soils are characterized by annual forbs such as *Acanthomintha cordata* var. *obovata*, *Eriogonum clavatum*, and *Descurainia pinnata*, to name a few.



Above: Aerial imagery of Lockwood Valley. The vast plains here support ephemeral creeks, vernal pools, meadows, shrublands, and herblands. (Photo obtained from Google Earth 2022.)





Typical landscape of Lockwood Valley dominated by Great Basin Sagebrush (Photos by D. Magney).



Left: Typical scrub habitat where soils are coarser, sandy to loam. *Right*: Large vernal pool, one of several in Lockwood Valley, dominated in the summer by *Helianthus annuus* at the time of this photo but seasonally dominated by *Phacelia ciliata* earlier in the year some years. (Photos by David Magney.)



Left: View northward of a southwest-facing slope showing two plant communities responding to local soil conditions, with scrub on courser soils and herbland on Lockwood Clay soils. *Right*: Lockwood Clay substrated dominated by *Eriogonum clavatum* and other native forbes. (Photos by David Magney.)

Lockwood Valley Recommendations

Lockwood Valley exhibits high species richness. The majority of Lockwood Valley is dominated by native grasses and forbs and shrubs, with high numbers of rare plants on the Lockwood Clay soils. The areas containing Lockwood Clay should be protected from development or land use activities that damage the botanical resources of this bioregion.

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LOWER MIDDLE PIRU CREEK

Lower Middle Piru Creek bioregion (Plm) ranges from approximately 984 feet to 3,400 feet in elevation and is approximately 25,569 acres (10,347 hectares) in size and ranks 25th in area of the 54 bioregions of the watershed. It is mostly comprised of Piru Creek which drains into Lake Piru in its southern portion. Santa Felicia Canyon is another large drainage that flows into Lake Piru from the east. Its geology is mostly comprised of marine sedimentary rocks. It is part of the Western Transverse Ranges.

Its soils are complex but dominated by two types, Lodo and San Benito series from the Lithic Haploxerolls suborder.

The climate of the Lower Middle Piru Creek is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 94°F and the average mean low temperature is 42°F. The average annual precipitation is 19 inches/482 mm.

The majority of land of the Lower Middle Piru Creek is public with 15,367 acres mostly of forest service land, while 10,201 acres are private, consisting of large lots and small ranches. Lake Piru has a surface area of 1,240 acres.

Lower Middle Piru Creek Bioregion Location

Lower Middle Piru Creek is located in the Piru Creek watershed. It is bordered by the Upper Middle Piru Creek bioregion to the north, the Ridge Route Ridge and the Whitaker Peak bioregions to the east, the Lower Piru Creek bioregion to the south, and the Whiteacre Peak Ridge and Alamo Mountain bioregions to the west. Figure 18, Map of Lower Middle Piru Creek Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

Lower Middle Piru Creek Flora

The Lower Middle Piru Creek bioregion flora contains approximately 296 taxa with an additional 43 taxa identified just to genus. CNPS observed a total of 265 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 76 waypoints. An average of 11.9 taxa were observed at each waypoint. Of these 265 taxa observed, 228 (86.0%) are native and 37 (14.0%) are non-native. This ratio of native to non-native plants is higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012), which reflects the basic natural condition of this bioregion.

A total of one hundred eighteen (118) vouchers were collected from Lower Middle Piru Creek, primarly by David Magney, Adam Hoeft, and Jonathon Holguin, as part of this study, with another 840 plant observations. CCH cites 234 vouchers, representing 149 taxa²⁹, recorded by others from this bioregion prior to this study. Table 18, Consolidated Statistics of the Lower Middle Piru Creek Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

²⁹ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.





Figure 19. Map of Lower Middle Piru Creek Bioregion



Overall, Lower Middle Piru Creek is primarily dominated by chaparral species on the slopesand riparian species along the creek³⁰.

Lower Middle Piru Creek Flora Quick Stats		
CNPS	# Taxa Observed	265
	# Vouchers Collected	118
	# Waypoints	76
ССН	# Taxa Reported ²⁶	149
	# Vouchers Collected	234
Total # Taxa Reported for Bioregion		296
Total # Vouchers Collected for Bioregion		352

Table 18. Consolidated Statistics of the Lower Middle Piru Creek Bioregion Flora

Lower Middle Piru Creek Special-status Species

Ten (10) special-status species were observed or documented in Lower Middle Piru Creek, including: *Calochortus clavatus* var. gracilis, *Calystegia peirsonii*, *Diplacus johnstonii*, *Juglans californica*, *Juncus acutus* ssp. *leopoldii*, *Lessingia tenuis*, *Malacothamnus davidsonii*, *Opuntia basilaris* var. *brachyclada*, *Rhinotropis cornuta* var. *fishiae*, and *Viguiera laciniata*.

Lower Middle Piru Creek Habitats

Lower Middle Piru Creek contains approximately six of habitat types, composed of Coast Live Oak Woodland, Riparian Woodland, shrublands including chaparral and coastal sage scrub, herblands, and rock outcrops.



Left: Riparian course along Piru Creek dominated by Sandbar Willow, *Salix exigua*, and Narrowleaf Cattail, *Typha domingensis*. *Right*: Frenchman's Flat Campground above riparian course of Piru Creek displaying very rugged topography. (Photos by Jordan Collins.)

³⁰ The areas dominated by trees and shrubs were not surveyed as thoroughly as the herbland (grassland) areas, due to difficulty of access.





Left: Trail near Frenchman's Flat Campground showcasing ecotone of Oak Woodland, Chaparral, and Herbland habitats. *Right*: Volunteer Betsy Lockhart admiring some Shredding Evening-Primrose, *Eremothera boothii* ssp. *decorticans*, along a talus slope. (Photos by Jordan Collins)



Left: Chaparral above Oak Canyon dominated by California Wild Buckwheat, Eriogonum fasciculatum var. foliolosum, and Chamise, Adenostoma fasciculatum var. fasciculatum. Right: Shrubland near Oak Canyon dominated by Eriogonum fasciculatum var. foliolosum and Great Basin Sagebrush, Artemisia tridentata var. tridentata. (Photos by Jonathon Holguin.)

Lower Middle Piru Creek Recommendations

Lower Middle Piru Creek is for the most part inaccessible except by hiking trail exept for the upper and lower ends that are near either Pyramid or Lake Piru reservoirs and public roads. Retaining the natural condition of the roadsides will help maintain the integrity of the botanical resources of this bioregion.

LOWER PIRU CREEK

The Lower Piru Creek bioregion (Pc1) ranges from approximately 688 feet to 2,140 feet in elevation and is approximately 8,592 acres (3,477 hectares) in size and ranks 45th in area of the 54 watershed bioregions. It is mostly comprised of Piru and Holser Canyons and drains into the Santa Clara River Valley just southeast of the town of Piru. It is part of the Western Transverse Ranges.



Its geology consists of marine sedimentary rocks, and its soils are dominated by Xerolls of the San Benito series.

The climate of the Lower Piru Creek is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 92°F and the average mean low temperature is 44°F. The average annual precipitation is 19 inches/482.6 mm.

Most of the land in the Lower Piru Creek is private, consisting of small to large lots and small to large ranches. Only about 63 acres, less than 1 percent, of the bioregion is public.

Lower Piru Creek Bioregion Location

Lower Piru Creek is located in the Piru Creek watershed. It is bordered by the Lower Middle Piru Creek bioregion to the north, the Santa Clara River Valley bioregion to the east and south, and the Whiteacre Peak Ridge bioregion to the west. Figure 19, Map of Lower Piru Creek Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

Lower Piru Creek Flora

The Lower Piru Creek bioregion flora contains approximately 89 taxa with an additional 2 taxa identified just to genus. CNPS observed a total of 12 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 1 waypoint. 12 taxa were observed at this waypoint. Of these 85 taxa known to occur in this bioregion, 72 (84.7%) are native and 13 (15.3%) are non-native. This ratio of native to non-native plants is higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

No vouchers were collected from this bioregion as part of this study, but 12 plant observations were made by Jonathon Holguin. CCH cites 36 vouchers, representing 28 taxa, recorded by others from this bioregion prior to this study. Table 19, Consolidated Statistics of the Lower Piru Creek Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion. More fieldwork should be conducted in this bioregion in an effort to document more taxa.

Overall, Lower Piru Creek is primarily dominated by riparian vegetation and chaparral and coastal sage scrub, as well as agricultural crops and greenhouses, both of which exclude native plants.





Figure 20. Map of Lower Piru Creek Bioregion



Lower Piru Creek Flora Quick Stats		
CNPS	# Taxa Observed	12
	# Vouchers Collected	-
	# Waypoints	1
ССН	# Taxa Reported	28
	# Vouchers Collected	36
Total # Taxa Reported for Bioregion		89 ³¹
Total # Vouchers Collected for Bioregion		36

Table 19. Consolidated Statistics of the Lower Piru Creek Bioregion Flora

Lower Piru Creek Special-status Species

Lower Piru Creek provides habitat to five (5) sensitive species, including: *Calochortus clavatus* var. *clavatus*, *C. clavatus* var. *gracilis*, *Deinandra paniculata*, *Lupinus paynei*, and *Viguiera laciniata*. This bioregion is undersurveyd and more sensitive species likely exist.

Lower Piru Creek Habitats

Lower Piru Creek contains approximately five (5) habitat types, composed of woodlands, shrublands, herblands, and rock outcrops. Other habitats in this bioregion include Riparian Woodlands, Chaparral, and Coastal Scrub.



Above: Two views of Piru Creek just below Santa Felicia Dam showing freshwater marsh and riparian woodland habitats. (Photos by David Magney.)

³¹ Based on David Magney's research of the Ventura County flora.





Above: Aerial imagery showing Piru Creek draining south and southwest out of Lake Piru. Much of this floodplain has been occupied by agricultural fields. (Photo obtained from Google Earth 2022.)



View down canyon of Piru Creek Canyon just below Santa Felicia Dam. Riparian habitats dominate the floodplain while Coastal Sage Scrub vegetation dominates the slopes. (Photos by David Magney.)




The canyon slopes are fairly young sedimentary formations that are susceptible to erosion, dominated by Coastal Sage Scrub vegetation (photos by David Magney).

Lower Piru Creek Recommendations

The Lower Piru Creek bioregion lowlands are highly disturbed and modified by intensive agriculture. To protect sensitive wetland habitats along Piru Creek and its tributaries, buffer zones should be established between farmed lands and the streams, vegetated with native forbs, shrubs, and trees.

LOWER SESPE CREEK

Lower Sespe Creek bioregion (SI) ranges from approximately 471 feet to 3,818 feet in elevation and is approximately 8,070 acres (3,265 hectares) in size and ranks 47th in area of the 54 watershed bioregions. It is mostly comprised of the Sepse Creek and its banks, which drains into the Utom River at the west side of the City of Fillmore. Most of the Lower Sespe Creek consists of a very deep and inaccessible canyon with a minimal amount of past human disturbance from oil exploration and pumping. The lowest reach of this bioregion, from Sespe Creek's confluence with Little Sespe Creek, is highly modified by intensive agriculture, primarily to grow citrus crops. Much of the Sespe Creek in this area is confined by hardened levees. It is part of the Western Transverse Ranges.

Its geology is made up of mostly marine sedimentary rock, characterized by the massive red sandstone layers of the Sespe Formation, and its soils are mostly Lodo in the Xerolls suborder.

The climate of the Lower Sespe Creek is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 86-94°F and the average mean low temperature is 38-42°F. The average annual precipitation is 21 inches/533 mm.

Most of the land in the Lower Sespe Creek is public Forest Service land of the Los Padres National Forest at 5,270 acres, while 2,799 acres in the lowermost portion below Devils Gate is private, consisting of small to large lots and small ranches. The creek above Van Tree's property above Little Sespe Creek is wilderness and for the most part protected from development. Devils Gate and below is privately owned. CDFW owns a small portion just upstream of Devils Gate.



Lower Sespe Creek Bioregion Location

Lower Sespe Creek is located in the Sespe Creek watershed. It is bordered by Whiteacre Peak Ridge to the north and east, Santa Clara River Valley to the south, and Topatopa Mtns and Santa Paula Ridge to the west. Figure 20, Map of Lower Sespe Creek Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

Lower Sespe Creek Flora

The Lower Sespe Creek bioregion flora contains approximately 260 taxa with an additional 3 taxa identified just to genus. CNPS observed a total of 130 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 13 waypoints. An average of 17.8 taxa were observed at each waypoint. Of the 219 taxa known from this bioregion, 193 (88.1%) are native and 26 (11.9%) are non-native. This ratio of native to non-native plants is significantly higher compared to the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

A total of twelve (12) vouchers were collected from Lower Sespe Creek, primarily by David Magney and Adam Hoeft, as part of this study, with another 219 plant observations. Magney previously collected 49 vouchers from this bioregion (8 in 1987 and 41 in 2013). CCH cites 146 vouchers, representing 110 taxa³², recorded by others from this bioregion prior to this study. Table 20, Consolidated Statistics of the Lower Sespe Creek Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, Lower Sespe Creek is primarily dominated by riparian and freshwater marsh taxa along the creek and its tributaries. Chaparral and Coastal Sage Scrub special along the mountain slopes, and Coast Live Oak species on the upper floodplain terraces³³.

Lower Sespe Creek Flora Quick Stats				
CNPS	# Taxa Observed	130		
	# Vouchers Collected	12		
	# Waypoints	13		
ССН	# Taxa Reported ²⁹	110		
	# Vouchers Collected	146		
Total # Taxa Reported for Bioregion		260		
Total # Vouchers Collected for Bioregion		158		

Table 20. Consolidated Statistics of the Lower Sespe Creek Bioregion Flora

³² The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.

³³ The areas dominated by trees and shrubs were not surveyed as thoroughly as the herbland areas, due to difficulty of access.





Figure 21. Map of Lower Sespe Creek Bioregion



Lower Sespe Creek Special-status Species

Five (5) special-status species were observed or documented in Lower Sespe Creek, including: *Juglans californica, Juncus acutus* ssp. *leopoldii, Lepechinia rossii, Phacelia hubbyi,* and *Rhinotropis cornuta* var. *fishiae.*

Lower Sespe Creek Habitats

Lower Sespe Creek contains approximately seven of habitat types, composed of woodlands, shrublands, herblands, and rock outcrops, including freshwater marsh, freshwater seep/spring (*Adiantum* Herbacous Alliance), Cottonwood-Willow Riparian, Scalebroom Scrub, Coast Live Oak Woodland, Ceanothus Chaparral, Coastal Sage Scrub, and Cliff-face Herbacous Alliance.



Left: View looking upstream of Sespe Creek at Devils Gate (Photo by David Magney). *Center*: Spring along riparian course of Sespe Creek dominated by Southern Maidenhair (*Adiantum capillus-veneris*). *Right*: Sespe Creek with riparian vegetation. (Photos by Jonathon Holguin.)



Left: View westward upstream towards Devils Gate. Sespe Formation is the dominant geologic formation in this area. *Right*: View downstream (southeastward) from just below Devils Gate. (Photos by David Magney.)





Above: Aerial imagery showing very steep west-facing canyon walls along the windy Sespe Creek. (Photo obtained from Google Earth 2022.)



Left: View SSE across Sespe Creek from just downstream of Devils Gate with Coast Live Oak Woodland and Mixed Chaparral on the N-facing slopes. *Center*: View SSW of Pine Canyon across Sespe Creek. *Right*: View west of Sespe Formation rock outcrops across Devils Gate. (Photos by David Magney.)

Lower Sespe Creek Recommendations

Much of the Sespe Creek is designated as a wild and scenic river, except for the lowermost reach below Devils Gate, and the Lower Sespe Creek bioregion is within the Sespe Condor Sancturay managed by the U.S. Fish and Wildlife Service, with access restricted to just the river corridor. Since there are not roads or maintained trails, human use is very light.

Landuse activities on the private parcels have a range of activities occurring on them, from passive protection on the 200-acre parcel containing Devils Gate to active oil exploration and extraction and intensive farming from Van Tree's and downstream. Ventura County Resource Protection maintains hardened levees on the banks of Sespe Creek in the Fillmore area which restricts the dynamics of the floodplain below Little Sespe Creek. Eliminating further oil



exploration and extraction would reduce petroleum contamination of the creek and downstream habitats. Creating vegetated buffers of native vegetation between Sespe Creek and farms would protect wetland functions of the creek.

MIDDLE SESPE CREEK

The Middle Sespe Creek bioregion (Sm) is approximately 24,246 acres (9,812 hectares) in size and ranks 29th in area of the 54 watershed bioregions. It ranges from approximately 2,093 feet to 4,175 feet in elevation. It is mostly comprised of the Sespe Creek and various tributaries that flow eastward and becoming the Lower Sespe Creek bioregion when it turns south at Alder Creek. It is part of the Western Transverse Ranges.

Its geology is complex, being composed of both marine and nonmarine sedimentary rock, comprised of several sendimentary rock formations, including the Juncal, Coldwater, Cozy Dell, Sespe, and Matilija Formations. Its soils are mostly the Aramburu variant series of the Mollic Haploxeralfs suborder.

The climate of the Middle Sespe Creek is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 90°F and the average mean low temperature is 34°F. The average annual precipitation is 25 inches/635 mm.

Most of the land in the Middle Sespe Creek is public (Forest Service) with scattered private parcels consisting of small to large lots and small ranches (originally homesteads). These private parcels make up only 766 acres of land, or about 3% of the total acreage.

Middle Sespe Creek Bioregion Location

Middle Sespe Creek is located in the Sespe Creek watershed. It is bordered by the Pine Mountain Ridge bioregion to the north, the Alamo Mountain bioregion to the northeast, the Topatopa Mountains, Nordhoff Ridge, and Dry Lakes Ridge bioregions to the south, and the Ortega Hill and Upper Sespe Creek to the west. Figure 21, Map of Middle Sespe Creek Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

Middle Sespe Creek Flora

The Middle Sespe Creek bioregion flora contains approximately 423 taxa with an additional 23 taxa identified just to genus. CNPS observed a total of 288 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 45 waypoints. An average of 15.3 taxa were observed at each waypoint. Of the 331 taxa known from this bioregion, 308 (93.1%) are native and 23 (6.9%) are non-native. This ratio of native to non-native plants is higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).





Figure 22. Map of Middle Sespe Creek Bioregion



A total of fourty-two (42) vouchers were collected from Middle Sespe Creek, primarily by David Magney, as part of this study, with another 787 plant observations. CCH cites 517 vouchers, representing 290 taxa³⁴, recorded by others from this bioregion prior to this study. Table 21, Consolidated Statistics of the Middle Sespe Creek Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, Middle Sespe Creek is primarily dominated by riparian woodland trees such as *Populus fremontii* and chaparral species such as *Adenostoma fasciculatum*, *Ceanothus crassifolius*, *C. leucodermis*, and *Cercocarpus betuloides*³⁵. It is curious that *Clematis lasiantha* and *Croton setiger* are not known from this bioregion; they is likely present but not yet documented.

Middle Sespe Creek Flora Quick Stats			
CNPS	# Taxa Observed	288	
	# Vouchers Collected	42	
	# Waypoints	45	
ССН	# Taxa Reported ³¹	291	
	# Vouchers Collected	517	
Total # Taxa Rep	423		
Total # Vouchers Collected for Bioregion		559	

Table 21. Consolidated Statistics of the Middle Sespe Creek Bioregion Flora

Middle Sespe Creek Special-status Species

Six (6) special-status species were observed or documented in Middle Sespe Creek, including: Amsinckia douglasiana, Calandrinia breweri, Calochortus palmeri var. palmeri, Delphinium parryi ssp. purpureum, Eriogonum elegans, and Juncus acutus ssp. leopoldii.

Middle Sespe Creek Habitats

Middle Sespe Creek contains approximately five of habitat types, composed of woodlands, shrublands, herblands, and rock outcrops. Common vegetation communities of the Middle Sespe Creek bioregion include: Cottonnwood-Willow Riparian Woodland, Willow Riparian Woodland and Scrub, Freshwater Marsh, Oak Woodland, Chamise Chaparral, Ceanothus Chaparral, Mixed Chaparral, Coastal Sage Scrub, and Rock Outcrop.

³⁴ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.

³⁵ The areas dominated by trees and shrubs were not surveyed as thoroughly as the herbland areas, due to difficulty of access.





These photos show the recent and Pleistocene Era river terraces created by the downward erosion of the sedimentary formations by the Sespe Creek. The slopes and terraces are dominated by chaparral and sometimes Great Basin Sagebrush, *Artemisia tridentata* var. *tridentata*. (Photos by David Magney.)



Left: View east of Middle Sespe Creek Trail between Beaver Camp and Howard Creek on the north side of Sespe Creek, looking downstream. The slopes and flats are dominated by chaparral species. *Right*: a Sespe Creek floodplain terrace near Beaver Camp. (Photos by David Magney.)



Left: Sespe Creek looking upstream near the former Beaver Camp in the spring prior to the willows leafing out for the spring. *Right*: Sespe Creek looking downstream between Beaver Camp and Howard Creek exhibiting sandstone bedrock substrate. (Photos by David Magney.)





These photos show the active bed of the Sespe Creek between Lion and Bear Canyons. Sandstone boulders and large cobbles are characteristic of the bedload with freshwater marsh species dominating where perennial flows occur. Riparian scrub and woodlands dominate the banks of the stream. (Photos by David Magney.)



Left: View north of Sespe Creek near former Beaver Camp, with chaparral species dominating the landscape. *Right*: Southerly-facing slope of shale talus dominated by seasonal annual forbs and Our Lord's Candle, *Hesperoyucca whipplei*. (Photos by David Magney.)

Middle Sespe Creek Recommendations

Middle Sespe Creek now contains two parts with different levels of human access, the upper portion from the Sespe Gorge (just above the Caltrans maintenance station) downstream to Lion Campground, and the lower portion downstream of Lion Campground. State Route 33 follows the Sespe Creek from the Sespe Gorge down along the north edge of Dry Lakes Ridge where it bears south, and the Rose Valley Road provides vehicle access to Lion Campground.

Below Lion Campground, the old Sespe Hot Springs Road, since the late 1970s, only a hiking trail entirely within the Congressionally designated Sespe Wilderness. The primary author actually drove the Sespe Hot Springs Road back in the 1970s and witnessed dozens of abandoned vehicles and trash. Closing the road to vehicles was a huge improvement in protecting the biological resources of this bioregion. Since the Sespe Creek Trail is quite popular, too much trash is left behind, including things as large as ice chests that the owners felt were just too heavy to take back out, not to mention the thousands of beverage containers and other trash. Issuing fines to those that degrade the environment by leaving their trash behind is one recommendation that may help curb this destructive behavior.



MINT CANYON

Mint Canyon bioregion (MintC) ranges from approximately 1,680 feet to 2,912 feet in elevation and is approximately 4,876 acres (1,973 hectares) in size and ranks 51st in area of the 54 watershed bioregions. It is mostly comprised of Mint Canyon which drains into the Santa Clara River Valley. It is part of the Western Transverse Ranges.

Its geology is composed of both marine and nonmarine sedimentary rock, and its soils are mostly Capertons of the Xerolls suborder.

The climate of Mint Canyon is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 92°F and the average mean low temperature is 40°F. The average annual precipitation is 18 inches/457 mm.

Most of the land in Mint Canyon is private, consisting of small to large lots and small ranches, while only 267 acres of land is public, all of which are from the Angeles National Forest.

Mint Canyon Bioregion Location

Mint Canyon is located in the Mint Creek watershed. It is bordered by the Sierra Pelona bioregion to the north and west, the Saddleback Mountain bioregion to the east, and the Santa Clara River Valley bioregion to the south. Figure 22, Map of Mint Canyon Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

Mint Canyon is accessed primarily from public roads in the canyon bottom and trails on the adjacent ridges.

Mint Canyon Flora

The Mint Canyon bioregion flora contains approximately 209 taxa with an additional 4 taxa identified just to genus. CNPS observed a total of 33 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 2 waypoints. An average of 15 taxa were observed at each waypoint. Of the 194 taxa known to occur in the bioregion, 180 (92.8%) are native and 14 (7.2%) are non-native. This ratio of native to non-native plants is significantly higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

A total of six (6) vouchers were collected from Mint Canyon, primarily by Adam Hoeft and Jonathon Holguin, as part of this study, with another 35 plant observations. CCH cites 168 vouchers, representing 120 taxa³⁶, recorded by others from this bioregion prior to this study. Table 22, Consolidated Statistics of the Mint Canyon Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, Mint Canyon is primarily dominated by riparian scrub and chaparral species, such as *Salix lasiolepis*, *Platanus racemosa*, and *Populus fremontii* along the streams and *Adenostoma fasciculatum* and *Cercocarpus betuloides* on the arid slopes.

³⁶ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.





Figure 23. Map of Mint Canyon Bioregion



Mint Canyon Flora Quick Stats			
CNPS	# Taxa Observed	33	
	# Vouchers Collected	6	
	# Waypoints	2	
ССН	# Taxa Reported ³³	120	
	# Vouchers Collected	168	
Total # Taxa Reported for Bioregion		209	
Total # Vouchers Collected for Bioregion		174	

Table 22. Consolidated Statistics of the Mint Canyon Bioregion Flora

Mint Canyon Special-status Species

Seven (7) special-status species were observed or documented in Mint Canyon, including: *Amsinckia douglasiana, Calochortus clavatus* var. *gracilis* (CNDDB data, not observed), *Calystegia peirsonii, Dodecahema leptoceras* (CNDDB data, not found at historic sites, possibly extirpated), *Eriophyllum confertiflorum* var. *tanacetiflorum, Monardella candicans*, and *Opuntia basilaris* var. *brachyclada*.

Mint Canyon Habitats

Mint Canyon contains approximately four (4) habitat types, composed of woodlands, shrublands, herblands, and rock outcrops. The main riparian course supports riparian scrub habitat with pockets of Oak Woodlands in drainages feeding into Mint Canyon.



Above: Fragmented riparian floodplain in Mint Canyon along Sierra Highway supporting riparian scrub habitat. (Photo obtained from Google Earth 2022.)





Above: Sierra Highway tracing the riparian course through Mint Canyon. Hillsides here host annual herbland and chaparral habitats. (Photo obtained from Google Earth 2022.)

Mint Canyon Recommendations

Mint Canyon has a fairly pristine flora with a very small percentage of naturalized non-native plants. Land use decisions should consider the importance of protecting the existing botanical resources of this bioregion.

MONTALVO

Montalvo bioregion (M) ranges from approximately 68 feet to 368 feet in elevation and is approximately 7,315 acres (2,960 hectares) in size and ranks 49th in area of the 54 bioregions of the watershed. It consists mostly of agricultural fields and urban developments alongside the northern banks of the Utom River in the Oxnard Plain. It is part of the South Coast subregion.

Its geology is made up of both marine and non marine (continental) sedimentary rocks, and its soils are mostly composed of Anacapa in the Xerolls suborder.

The climate of the Montalvo is a mild Mediterranean with cool wet winters and warm but dry summers. The average mean high temperature is 76°F and the average mean low temperature is 46°F. The average annual precipitation is 16 inches/406 mm.

Almost all of the land in Montalvo is private, consisting of small to large lots and a few remaining farms. Only 315 acres are considered public and consist of local parks, with Ventura Community Park being the largest parcel.



Montalvo Bioregion Location

Montalvo is located in the Utom River watershed. It is bordered by Ventura Hills to the north, Santa Clara River Valley to the east and south, and the city of Ventura to the west. Figure 23, Map of Montalvo Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected. This bioregion is accessible along numerous public roads criss-crossing the entire area; however, most of the land is private.

Montalvo Flora

The Montalvo flora contains approximately 64 taxa, all of which are identified to species at the minimum. CNPS volunteers did a couple of surveys in this bioregion. No vouchers were made in this bioregion as part of this study. CCH cites 25 vouchers, representing 16 taxa³⁷, recorded by others from this bioregion prior to this study. Table 23, Consolidated Statistics of the Montalvo Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion. The flora of 32 vascular plant taxa consists of seven (7) native taxa (21.9%) and 25 naturalized nonnative taxa (78.1%), which is reflective the the highly disturbed and developed condition of this small bioregion and nearly opposite the ratio of native to nonative plants as found in California as a whole (Baldwin et al. 2009).

Overall, Montalvo is primarily dominated by invasive exotic plants due to its highly urbanized condition as part of the City of Ventura. More fieldwork could be done here to gain a better understanding of the flora of this bioregion.

Montalvo Flora Quick Stats			
CNPS	# Taxa Observed	32	
	# Vouchers Collected	-	
	# Waypoints	-	
ССН	# Taxa Reported ³⁴	16	
	# Vouchers Collected	25	
Total # Taxa Reported for Bioregion		64	
Total # Vouchers Collected for Bioregion		25	

Table 23. Consolidated Statistics of the Montalvo Bioregion Flora

Montalvo Special-status Species

One (1) special status species is documented in Montalvo: *Baccharis plummerae* ssp. *plummerae*.

³⁷ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.





Figure 24. Map of Montalvo Bioregion



Montalvo Habitats

Montalvo contains approximately three (3) habitat types, composed of riparian woodlands, riparian scrub, and ruderal communities. What natural communities were to be found in this bioregion only occur as remnants along barancas and a vew vacant lots. Nearly the entire bioregion had been conferted to agriculture production before it was urbanized to accommodate the expansion and growth of the City of San Buenaventura.



Above: Aerial imagery highlighting the urban sprawl in Montalvo bioregion. There is almost no native habitat left here besides minor pockets near freeway onramps and along the Harmon Barranca riparian course. (Photo obtained from Google Earth 2022.)

Montalvo Recommendations

Montalvo exhibits a low diversity of native plants as a result of agricultural conversion followed by urbanization. Open space areas within this bioregion should be protected and restored to native plant communities to allow local residents an opportunity to experience the local flora and environment.

MOUNT PINOS

Mount Pinos bioregion (MP) ranges from approximately 4,215 feet to 8,846 feet in elevation and is approximately 66,952 acres (27,095 hectares) in size and ranks 10th in area of the 54 watershed bioregions. It contains numerous drainages that flow southeast into Lockwood Valley and Lockwood Creek which drains into Piru Creek. It is part of the Western Transverse Ranges.



Its geology is complex with plutonic, marine, and metasedimentary rocks, with Pelona Schist and Adamilite granite rocks dominating the bioregion. Its soils are a mix of Mahogan from the Xerolls suborder and Los Gatos from the Xeralfs suborder.

The climate of Mount Pinos is Mediterranean with cool to cold wet winters and warm dry summers, with occasional monsoonal storms. The average mean high temperature is 72-82°F and the average mean low temperature is 26°F. The average annual precipitation is 25-33 inches/635-838 mm. Snow falls regularly during the winter season and generally lasts through the winter months, with remnants on the summit existing into the late spring and early summer in some years.

Most of the land on Mount Pinos is forest service land of the Los Padres National Forest at 62,012 acres. The low southern elevations closer to Lockwood Valley consist of most of the private land in small to large lots and large ranches, totaling 4,939 acres. Much of the western portion Mount Pinos bioregion is within the Chumash Wilderness.

Mount Pinos Bioregion Location

The Mount Pinos bioregion is located in the northwestern most portion of the Utom River watershed. It is bordered by the San Andreas Rift Zone and San Emigdio Mountains to the north, the Lockwood Valley bioregion to the southeast, the San Guillermo Mountain bioregion to the south, and the Cuyama Badlands bioregion (outside the study area) to the west. The San Emigdio Mountains and Cuyama Badlands bioregions are outside of the Utom River Watershed and not part of this study. Figure 24, Map of Mount Pinos Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

Mount Pinos Flora

The Mount Pinos flora contains approximately 572 taxa with an additional 27 taxa identified just to genus. CNPS observed a total of 204 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 111 waypoints. An average of 11.2 taxa were observed at each waypoint. Of the 593 taxa known from this bioregion, 579 (97.6%) are native and 14 (2.4%) are non-native. This ratio of native to non-native plants is significantly higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012) and represents about as pure a native flora as you can find in California.

A total of one hundred twenty-three (123) vouchers were collected from Mount Pinos, primarly by David Magney and Adam Hoeft, as part of this study, with another 1,119 plant observations. CCH cites 2,258 vouchers, representing 631 taxa³⁸, recorded by others from this bioregion prior to this study. Table 24, Consolidated Statistics of the Mount Pinos Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

³⁸ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.





Figure 25. Map of Mount Pinos Bioregion



Overall, Mount Pinos is primarily dominated by *Pinus jeffreyi* on the slopes above 4,000 feet with an understory of *Symphoricarpos rotundifolius* var. *parishii*, and *Pinus monophylla* on the slopes below 5,000 feet. There are pockets of montane wet meadows dominated by *Carex* spp., *Iris missouriensis*, and *Veratrum californicum*. Dry open flats and slopes are dominated by matforming shrubs *Eriogonum kennedyi* and *E. wrightii* var. *subscaposum* that are likely over 100 years old.

Mount Pinos Flora Quick Stats			
CNPS	# Taxa Observed	204	
	# Vouchers Collected	123	
	# Waypoints	111	
ССН	# Taxa Reported ³⁵	631	
	# Vouchers Collected	2,258	
Total # Taxa Reported for Bioregion		572	
Total # Vouchers Collected for Bioregion		2,381	

Table 24. Consolidated Statistics of the Mount Pinos Bioregion Flora

Mount Pinos Special-status Species

There are thirty-seven (37) known special-status species within the Mount Pinos bioregion, including: Acanthominta obovata var. cordata, Acanthoscyphus parishii var. abramsii, Allium howellii var. clokeyi, A. tribracteatum, Astragalus leucolobus, A. macrodon (possibly), Calochortus clavatus var. clavatus, C. fimbriatus, Caulantus lemmonii, Delphinium inopinum, D. parryi ssp. purpureum, Eriastrum sparsiflorum, Eriogonum elegans, E. kennedyi var. alpigenum, E. kennedyi var. austromontanum, E. umbellatum var. bahiiforme, Frasera neglecta, Fritillaria agrestis, F. pinetorum, Gilia interior, G. latiflora ssp. cuyamensis, G. leptantha ssp. pinetorum, Heuchera caespitosa, Layia heterotricha, Leptosiphon aureus, Lessingia tenuis, Lupinus elatus, L. excubitus var. johnstonii, Monardella linoides ssp. oblonga, Muhlenbergia californica, Navarretia peninsularis, Perideridia gairdneri ssp. gairdneri, Phacelia exilis, P. mohavensis, Sidalcea neomexicana, Solidago guiradonis, and Viola pinetorum ssp. grisea.

Mount Pinos Habitats

Mount Pinos contains approximately eight habitat types, composed of forests, woodlands, shrublands, herblands (including montane meadows), and rock outcrops. Mount Pinos contains slopes dominated by *Pinus jefferyi* and *Abies lowiana*. The rest is dominated by *Pinus monophylla* and *Artemisia tridentata*. A small stand of Foxtail Pine, *Pinus flexilis*, occurs on the summit of Mount Pinos and neighboring Sawmill Mountain immediately to the west. Numerous montane wet meadows occur on the mountain, primarily above 6,000 feet.





Left: Southern view on the summit of Mount Pinos with Limber Pine, *Pinus flexilis*, in patches (Photo by David Magney). *Right*: Subalpine Shrubland around the summit of Mount Pinos dominated by Sticky-leaved Rabbitbrush, *Chrysothamnus viscidiflorus* ssp. *viscidiflorus* (Photo by Jordan Collins).



Panoramic view southward near summit showing typical Yellow Pine Forest and open cushion mat scrub dominated by *Pinus jeffereyi* and *Eriogonum wrightii* ssp. *subscaposum*, respectively (Photo by David Magney).



Left: Pinus flexilis on the summit of Mount Pinos in late spring (30 May 2010) with snow still present. Right: Granite outcrop under Yellow Pine Forest dominated by Pinus jeffreyi and Abies lowiana, with and understory of Symphoricarpos rotundifolius ssp. parishii. (Photos by David Magney.)





Left: Cushion Buckwheat Scrub dominated by *Eriogonum wrightii* var. *subscaposum*. *Center*: Another cushion mat buckwheat, *Eriogonum kennedyi* var. *alpigenum*. *Right*: Close-up of *Eriogonum kennedyi* var. *alpigenum*. (Photos by David Magney.)



Left: Iris Meadow at Chula Vista on top of Mount Pinos. *Center*: *Iris missouriensis*, Blue Flag Iris. *Right*: Seymour Creek Meadow dominated by *Carex*. (Photos by David Magney.)



Left: Yellow Pine Forest with Great Basin Sagebrush as understory. *Center*: Possibly largest *Pinus monophylla* tree in the Utom River watershed, with David Magney for scale, 49" DBH, 16 m tall. *Right*: Cushion Buckwheat Scrub (*Eriogonum kennedyi-E. wrightii* Provisional Shrubland Alliance) next to riparian corridor of Seymour Creek. (Photos by David Magney.)



Mount Pinos Recommendations

Mount Pinos exhibits a high diversity of native plants. It also has 37 special-status species. While the southwestern portion of the Mount Pinos bioregion is within the Chumash Wilderness, the remainder is managed for passive recreation. Unfortunately, the human use of the mountain has left tons of trash thrown out along the road and along the trails.

Even though Mount Pinos has not had a large wildfire in many decades, with only small lightening strike fires that have not spread, the Forest Service has recently proposed to significantly thin the relatively thin forest near the summit to "improve forest health and protect homes and infrastructure" and log select large trees. There simply is no need for forest thinning and no homes occur anywhere near the summit, defined here as that area above 7,500 feet. Managing inappropriate human behavior in and around the forest would be a more important management strategy.

NORDHOFF RIDGE

The Nordhoff Ridge bioregion (NR) ranges from approximately 936 feet to 5,529 feet in elevation and is approximately 40,971 acres (16,581 hectares) in size and ranks 15th in area of the 54 bioregions of the watershed. Its largest drainage is Lion Canyon on the north flank, which drains into the Sespe Creek at Lion Campground. It is part of the Western Transverse Ranges.

Its geology is mostly marine sedimentary rock, including the Sespe, Coldwater, Cozy Dell, Juncal, Matilija Tertiary formations and an unnamed late Cretacous formation. Nordhoff Ridge is a textbook example of a geologic overturn. Its soils are a mix of Aramburu variant series in the Xeralfs suborder and Lodo of the Xerolls suborder.

The climate of the Nordhoff Ridge is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 83°F and the average mean low temperature is 36°F. The average annual precipitation is 27-31 inches/685-787 mm.

Most of the land of Nordhoff Ridge is public (Forest Service) with 37,949 acres from the Los Padres National Forest. The remainin 3,023 acres are private property, consisting of large parcels of open space and a few small ranches. The remnants of a fire lookout tower, Nordhoff Peak, occurs on Nordhoff Peak, with only the steel platform and frame remaining after the facilities were burned by vandals in the 1980s.

Nordhoff Ridge Bioregion Location

The Nordhoff Ridge bioregion is located in the center of Ventura County, with the Middle Sespe Creek bioregion to the north, the Topatopa Mountains bioregion to the east, the Upper Ojai and Ojai Valley bioregions (not part of the watershed) to the south, and the North Fork Matilija Canyon bioregion to the west, and the Pollard Point and Dry Lakes Ridge bioregions to the northwest. Figure 25, Map of Nordhoff Ridge Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

Nordhoff Ridge is accessed by paved and unpaved roads and numerous trails from all sides, with State Route 33 on the west side.





Figure 26. Map of Nordhoff Ridge Bioregion



Nordhoff Ridge Flora

The Nordhoff Ridge bioregion flora contains approximately 466 taxa with an additional 5 taxa identified just to genus. CNPS observed a total of 152 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 27 waypoints. An average of 14.9 taxa were observed at each waypoint. Of these 487 taxa known to occur in the bioregion, 411 (84.4%) are native and 76 (15.6%) are non-native. This ratio of native to non-native plants is significantly higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

A total of fifty (50) vouchers were collected from Nordhoff Ridge, primarily by Adam Hoeft and some by Jonathon Holguin and David Magney, as part of this study, with another 352 plant observations. CCH cites 669 vouchers, representing 362 taxa³⁹, recorded by others from this bioregion prior to this study. Table 25, Consolidated Statistics of the Nordhoff Ridge Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, Nordhoff Ridge is primarily dominated by chaparral species, including Adenostoma fasciculatum, Ceanothus crassifolius, C. cuneatus, C. leucodermis, C. megacarpus, C. oliganthus, C. spinosus, Cercocarpus betuloides, Quercus berberidifolia, and Arctostaphylos glandulosa to name a few⁴⁰. Quercus agrifolia, Q. chrysolepis, and Q. wislizenii ssp. frutescens dominate the narrow canyons of the ridge and Pseudotsuga macrocarpa occupy the steep north-facing slopes, generally at higher elevations. Riparian species dominate the stream corridors on both slopes, dominated by Alnus rhombifolia, Platanus racemosa, Populus fremontii, Salix laevigata, and S. lasiolepis.

Nordhoff Ridge Flora Quick Stats			
CNPS	# Taxa Observed	152	
	# Vouchers Collected	50	
	# Waypoints	27	
ССН	# Taxa Reported ³⁷	362	
	# Vouchers Collected	669	
Total # Taxa Reported for Bioregion		466	
Total # Vouchers Collected for Bioregion		719	

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Nordhoff Ridge Special-status Species

Nineteen (19) special-status species were observed or documented in Nordhoff Ridge, including: Baccharis plummerae ssp. plummerae, Calandrinia breweri, Calochortus catalinae, C. fimbriatus, Fritillaria ojaiensis, Heuchera abramsii, H. caespitosa, Horkelia cuneata var.

³⁹ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.

⁴⁰ The areas dominated by trees and shrubs were not surveyed as thoroughly as the herbland (grassland) areas, due to difficulty of access.



puberula, Imperata brevifolia, Juglans californica, Layia heterotricha, Lepidium virginicum var. robinsonii, Lilium humboldtii ssp. ocellatum, Lonicera subspicata var. subspicata, Monardella hypoleuca ssp. hypoleuca, Navarretia ojaiensis, Phacelia hubbyi, Rhinotropis cornuta var. fishiae, Quercus dumosa (possibly).

Nordhoff Ridge Habitats

Nordhoff Ridge contains approximately six basic of habitat types, composed of woodlands, shrublands, herblands, and rock outcrops. Chamise and Ceanothus Chaparral alliances dominate the xeric slopes and are the most common types on Nordhoff Ridge.

Seeps and springs on both the north and south slopes of Nordhoff Ridge support wetland and riparian habitats, such as at Rose Valley Falls and Rose Valley Creek and Lion Canyon Creek.

Steep north-facing slopes support stands of Bigcone Spruce Forest, dominated by *Pseudotsuga* macrocarpa and *Quercus chrysolepis*.

Canyon bottoms, other than the riparian corridors, are covered by oak woodlands, dominated by either Coast Live Oak, *Quercus agrifolia*, or Canyon Live Oak, *Q. chrysolepis*.



Above: Aerial imagery showing north-facing slopes of Nordhoff Ridge dominated by Bigcone-Spruce (*Pseudotsuga macrocarpa*) forests. (Photo obtained from Google Earth 2022.)





Left: view west of Chief Peak from east edge of Nordhoff Ridge, with *Arctostaphylos glandulosa* resprouting from the Thomas Fire of late 2018 in the foreground. *Right*: view east of middle portion of Lion Canyon on north slope of Nordhoff Ridge. Chaparral vegetation dominates the slopes while riparian forest dominates the canyon bottom. (Photos by David Magney.)



Above: Aerial imagery showing steep south-facing slopes along Nordhoff Ridge supporting sparse chaparral vegetation after the Thomas Fire of late 2018. (Photo obtained from Google Earth 2022.)



Left: Bigcone Spruce Forest. *Center*: Deergrass Meadow. *Right*: Cottonwood-Willow Riparian Forest. (Magney) C:\Users\Jordan Collins\Downloads\UtomRiver_BotanicalResourcesReport-20230203 (1).docx





Left: chaparral and oak woodland habitats along trail connecting Rose Valley and Lion Canyon on north slope of Nordhoff Ridge with Foothill Penstemon, *Penstemon heterophyllous*, in bloom. *Center Left*: Chalk Live-forever, *Dudleya pulverulenta*, and other hardy shrubs on sandstone rock outcrops along Lion Canyon. *Center Right*: Fern and forb covered calcium carbonate buildup on Rose Valley Falls, fed by a perennial spring above the falls. This is an example of the California Cliff group *Adiantum (capilis-veneris, jordanii)-Erythranthe guttata* Provisional Herbacous Alliance that is found on vertical substrates that are mesic to saturated. *Left*: Alder Riparian Forest along portion of Lion Canyon with perennial surface flows dominated by White Alder, *Alnus rhombifolia*. (Photos by David Magney.)



Left: View southward of Upper and Lower Rose Valley Falls from southern edge of Rose Valley. *Right*: View of Lower Rose Valley Falls, fed by a perennial spring associated with the Santa Ynez Fault along the contact of the late Cretaceous sedimentary formation and the younger Tertiary Matilija and Cozy Dell formations. (Photos by David Magney.)

Nordhoff Ridge Recommendations

Nordhoff Ridge exhibits a relatively high diversity of native plants due to the variety of habitats present on Nordhoff Ridge. It is managed for watershed protection and recreation, with most of the bioregion under management by the Los Padres National Forest. Minimizing destruction of natural vegetation for fuels management is recommended, primarily since ridgetop fuel breaks have never contained a large wildfire driven by Santa Ana Winds. Furthermore, historic large fires such as the Wheeler Fire of 1984 and Thomas Fire of 2018 did not significantly cross the front into the Ojai Valley. That is, defensive measures on the Ojai Front protected homes at the base of Nordhoff Ridge rather than being stopped on the ridgetop fuelbreak.



ORTEGA HILL

Ortega Hill bioregion (OH) ranges from approximately 3,475 feet to 5,774 feet in elevation and is approximately 24,973 acres (10,106 hectares) in size and ranks 28th in area of the 54 watershed bioregions. It is mostly comprised of an east-west trending mountain ridge with numerous lateral drainages and ridges, which drain in into the Abadi Creek and Sespe Creek on the north side and the Ventura River watershed on the south side.

Its geology is mostly composed of marine sedimentary rocks, primarily consisting of the Juncal and Matilija Formations. The soils are made up of Lodo of the Xeroll suborder. Ortega Hill is part of the Western Transverse Ranges.

The climate of the Ortega Hill bioregion is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 83°F and the average mean low temperature is 34°F. The average annual precipitation is 30 inches/762 mm.

All of Ortega Hill's 24,973 acres are public lands from the Los Padres National Forest, with its western half designated as wilderness land from the Matilija Wilderness.

Ortega Hill Bioregion Location

Ortega Hill is located in the Upper Sespe Creek watershed. It is bordered by Upper Sespe Creek to the north, Middle Sespe Creek to the east, Dry Lakes Ridge and Matilija Wilderness to the south, and Los Padres National Forest land to the west. Most of the Matilija Wilderness and the forest service lands to the west are not bioregions and are outside of the Utom River watershed. Figure 26, Map of Ortega Hill Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

The Ortega Hill bioregion is accessed by a few trails from the south (Ortega Trail off State Route 33 and Upper North Fork Matilija Creek trail), north (Cherry Creek Canyon), from the east (along Tule Creek and from the firebreak trail from Dry Lakes Ridge). Due to the inpenetrable chaparral vegetation, access to other parts of this bioregion are nearly impossible except after a wildfire.

Ortega Hill Flora

The Ortega Hill bioregion flora contains approximately 188 taxa, of which all are identified to species at the minimum. CNPS did not survey this bioregion; however, David Magney surveyed it in 1984, 2001, 2003, 2007, and 2011. Of the 242 taxa known to occur within the Ortega Hill bioregion, 228 (94.2%) are native and 14 (5.8%) are nonnative. This ratio of native to non-native plants is significantly higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012). This high percentage of native to nonnatives is likely a result of the bioregion having never been developed for agriculture or other human uses except recreation and Forest Service management access.





Figure 27. Map of Ortega Hill Bioregion



No vouchers were made in this bioregion as part of this study; however, David Magney previously collected 69 vouchers during the dates listed above. CCH cites 180 vouchers, representing 214 taxa⁴¹, recorded by others from this bioregion prior to this study. Table 26, Consolidated Statistics of the Ortega Hill Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, Ortega Hill is primarily dominated by Adenostoma fasciculatum, Arctostaphylos glandulosa sspp., Ceanothus crassifolius vars., C. leucodermis, C. palmeri, Cercocarpus betuloides, Eriodictyon crassifolium var. nigrescens, Frangula californica sspp., Lonicera subspicata var. denudata, Prunus ilicifolia, Quercus berberidifolia, and Q. wislizenii ssp. wislizenii.

Ortega Hill Flora Quick Stats				
CNPS	# Taxa Observed	-		
	# Vouchers Collected	-		
	# Waypoints	-		
ССН	# Taxa Reported ³⁹	120		
	# Vouchers Collected	180		
Total # Taxa Reported for Bioregion		188 ⁴²		
Total # Vouchers Collected for Bioregion		249		

Table 26. Consolidated Statistics of the Ortega Hill Bioregion Flora

Ortega Hill Special-status Species

One (1) special-status species is documented for Ortega Hill: *Delphinium parryi* ssp. *Purpureum*.

Ortega Hill Habitats

Ortega Hill contains approximately five habitat types, composed of woodlands, shrublands, and rock outcrops. Chaparral alliances dominate, with riparian woodlands and freshwater marsh habitats occurring along the canyons with perennial or intermittent stream flow. Steep shaded slopes are dominated by Bigcone Spruce Forest, *Pseudotsuga macrocarpa*.

⁴¹ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.
⁴² Based on David Magney's Ventura County flora research and manuscript.





Above: View of north-facing slopes of Ortega Hill bioregion as seen from the top of Pine Mountain Ridge to the north, with the Upper Sespe Creek bioregion in the canyon below (Photo by David Magney).



Left: View towards Ortega Hill peak. *Center*: Ortega Hill Trail at head of Cherry Canyon. *Right*: Ortega Hill ridgetop above Upper North Fork Matilija Creek. (Photos by David Magney.)





Left: Ridgetop as seen from upper Ladybug Canyon. *Right*: Riparian forest dominated by *Alnus rhombifolia* supported by a perennial spring in Ladybug Canyon. (Photos by David Magney.)



Left: Typical chaparral-covered slopes in upper Ladybug Canyon. *Right*: Chaparral associations on steep slopes in Ladybug Canyon. (Photos by David Magney.)



Left: Canyon bottom dominated by Bigcone Spruce Forest in upper Ladybug Canyon. *Center*: Dense riparian forest in Ladybug Canyon. *Right*: Sandstone cliff face/rock outcrop in Ladybug Canyon. (Photos by David Magney.)





Left: Chaparral and Balsamorhiza deltoidea along Cherry Creek Road. *Center*: Shale talus scree with spring-flowering annuals such as *Diplacus johnstonii* in Cherry Creek Canyon. *Right*: *Diplacus johnstonii* in shale talus scree. (Photos by David Magney.)

Ortega Hill Recommendations

Ortega Hill exhibits a high diversity of native plants. It is primarily composed of steep slopes covered in chaparral with very few trails and one road (up Cherry Creek Canyon) that is open only seasonally. Illegal target practice has occurred since the shooting site at the mouth of Cherry Canyon was closed due to total disregard of the environment by most users, leaving behind tons of trash. The Forest Service needs to regularly patrol Cherry Creek Canyon for illegal target practicing to prevent habitat destruction such as found up the canyon as shown in the photographs below.



Scenes of vandalism using firearms in Cherry Creek Canyon on 17 May 2003 (Photos by David Magney).

OXNARD PLAIN

Oxnard Plain bioregion (OP) ranges from approximately 0 feet (sea level) to 120 feet in elevation and is approximately 88,058 acres (35,636 hectares) in size, ranking 7th in area of the 54 watershed bioregions. It is mostly comprised of agricultural land, urban development, and Revolon Slough which drains into the ocean. Much of this bioregion extends beyond (south) of the Utom River watershed.

Its geology is composed of both marine and nonmarine (continental) sedimentary rocks, mostly of Quaternary alluvium formations that are little consolidated due to their young age. Oxnard Plain bioregion soils are mostly made up of Camarillo series of the Fluvents suborder. It is part of the South Coast subregion.

The climate of the Oxnard Plain is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 70-78°F and the average mean low temperature is 47°F. The average annual precipitation is 15 inches/381 mm.



Almost all of the land in the Oxnard Plain is private, consisting of small to large lots, farms, ranches, and even military installations. Only 1,525 acres are considered public land and that comes in a wide variety of designations from The Nature Conservancy to public parks, state beaches, and recreational lands.

Oxnard Plain Bioregion Location

The Oxnard Plain bioregion is located partially in the Utom River watershed (on the north side). It is bordered partially by the Santa Susana Mountains bioregion to the northeast, the Camarillo Hills, Conejo Mountains, and Santa Monica Mountains bioregions to the east, the Pacific Ocean to the west and south. All except the Santa Clara River Valley bioregion are outside of the Utom River watershed. Figure 27, Map of Oxnard Plain Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

The Oxnard Plain is accessed by numerous public roads and highways, including U.S. 101 and State Routes 1 and 34. The cities of Oxnard and Port Hueneme are located in this bioregion as well as the Port Hueneme SeaBee Base and the Naval Air Station at Point Mugu, collectively now referred to as Naval Base Ventura County Point Mugu.

Oxnard Plain Flora

The Oxnard Plain bioregion flora contains approximately 392 taxa with 1 additional taxon identified just to genus. CNPS did not survey this bioregion primarily since most of it is technically outside the Utom River watershed; however, portions have been surveyed over the previous years. Of the 436 vascular plant taxa known to occur on the Oxnard Plain, 237 (54.4%) are native and 199 (45.6%) are naturalized taxa. This ratio of native to non-native plants is significantly lower than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012). This high percentage of native to nonnatives is likely a result of the bioregion having been almost entirely developed for agriculture, urban, and industrial uses.

No vouchers were made in this bioregion as a part of this study; however, David Magney has previously collected 8 vouchers from the Oxnard Plain bioregion. CCH cites 992 vouchers, representing 373 taxa⁴³, recorded by others from this bioregion prior to this study. Table 27, Consolidated Statistics of the Oxnard Plain Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion. As illustrated on Figure 27, the voucher collection and observation points for native and naturalized species occurs along the immediate coast where natural habitat remains.

The remnants of the Oxnard Plain bioregion flora consist of two components, the remnants primarily along the immediate coast and associated dunes and wetlands and naturalized and weedy natives that can colonize ruderal habitats. The rest of the Oxnard Plain has been converted to other uses.

⁴³ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.





Figure 28. Map of Oxnard Plain Bioregion


Oxnard Plain Flora Quick Stats				
	# Taxa Observed	-		
CNPS	# Vouchers Collected	-		
	# Waypoints	-		
CCU	# Taxa Reported ⁴⁰	373		
ССН	# Vouchers Collected	992		
Total # Taxa Repo	392 ⁴⁴			
Total # Vouchers Collected for Bioregion		992		

Table 27. Consolidated Statistics of the Oxnard Plain Bioregion Flora

Oxnard Plain Special-status Species

Twenty-one (21) special-status plants were observed or documented in Oxnard Plain, including: Abronia maritima, Astragalus pycnostachyus var. lanosissimus, Atriplex serenana var. davidsonii, Berberis nevinii, Calochortus catalinae, Chloropyron maritimum ssp. maritimum, Dichondra occidentalis, Erysimum suffrutescens, Hesperocyparis macrocarpa (not native to this region but exists here), Juncus acutus ssp. leopoldii, Lasthenia ferrisiae, L. glabrata ssp. coulteri, Lavatera assurgentiflora ssp. assurgentiflora, Malacothrix saxatilis var. saxatilis, M. similis, Phacelia ramosissima var. austrolitoralis, Pseudognaphalium leucocephalum, Senecio aphanactis, Suaeda californica (no CNDDB data but collections exist), Suaeda esteroa, and Suaeda taxifolia.

Oxnard Plain Habitats

The Oxnard Plain bioregion contains approximately seven of habitat types, composed of, shrublands, herblands, and riparian, lacustrine, and estuarine wetlands. These include Coastal Saltmarsh, Coastal Lagoon and backdune swale, Coastal Strand, Coastal Dunes, Coastal Dune Scrub, and ruderal habitats.



Above: A panoramic view of vacant lots in Oxnard Shores supporting a remnant of the coastal dune scrub habitat that once dominated Mandalay Beach (Photo by David Magney).

⁴⁴ Based on David Magney Ventura County Flora research.





Left: Coastal Dune Scrub dominated by *Ericameria ericoides*, *Artemisia californica*, and *Toxicodendron diversilobum*, with large patches of the invasive exotic Hottentot Fig, *Carpobrotus chilensis*. *Right*: Primary coastal dune dominated by Coastal Dune Scrub vegetation and large open areas of aeolian sand. (Photos by David Magney.)



Above: Aerial imagery of Coastal Dune and backdune swale wetland habitat along Mandalay Beach with Mandalay Beach Park in the center, just north of Oxnard Shores. The cleared area to the east of Harbor Boulevard is the North Shore development site where the presumed extinct Ventura Marsh Milkvetch (*Astragalus pycnostachyus* var. *lanosissimus*) was rediscovered in 1997. (Photo obtained from Google Earth 2022.)



Above, left to right: Abronia latifolia, Ambrosia chamissonis, Camissoniopsis cheiranthifolia ssp. suffruticosa, and Artemisia californica. (Photos by David Magney.)

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Left: Ruderal hábitat between railroad tracks and E. Fifth Street. *Right*: Backdune swale habitat at Mandalay Beach Park just north of west end of W. Fifth Street. (Photos by David Magney.)



Above: Aerial view showcasing Mugu Lagoon and the delta of Calleguas Creek and Revelon Slough (Photo obtained from Google Earth 2022), providing habitat for sensitive estuary species including Estuary Seablite (*Suaeda esteroa*, CRPR 1B.2) and Salt Marsh Bird's-beak (*Chloropyron maritimum* ssp. *maritimum*, CRPR 1B.2) – shown on next page, and other rare plants such as the Spiny Rush, *Juncus acutus* ssp. *leopoldii* (CNPR 4.3) – shown on right (Photo by David Magney). Mugu Lagoon is a major coastal saltmarsh with a small estuary. Remnants of coastal lagoons extend upcoast to the left in places such as Ormond Beach before being displaced by industrial and urban development by Port Hueneme and Oxnard.







Above: Saltmarsh Bird's-beak, Chloropyron maritimum ssp. maritimum, in Coastal Salt Marsh habitat at South Ormond Beach (Photos by David Magney).

Oxnard Plain Recommendations



Oxnard Plain exhibits a low diversity of native plants yet supports some of the state's rarest habitats and vascular plants, such as Ventura Marsh Milkvetch (photo on left) and Saltmarsh Bird's-beak. Only small remnants of natural habitat remain due to the near total conversion of natural habitat to agricultural, industrial, and urban land uses. Native plants can be observed at Mandalay Beach Park, Ormond Beach, and

Point Mugu. What remains needs to be protected and restored. Restoration would include removal of invasive exotic plants such as the ice

plants, *Carpobrotus chilensis* and *C. edulis*, which create thick carpets that crowd out all other plants, as shown on the right.

Open space must be set aside to allow for migration of coastal dune and wetland habitats inland as sea level rises, such as in the Ormond Beach area. The city of



Oxnard in a rare instance actually denied a housing development project in Ormond Beach on current agricultural land in part because it would eliminate habitat that the coastal wetlands could migrate into when sea level rises.

PARKER MOUNTAIN

The Parker Mountain bioregion (PM) is a relatively low mountain ridge trending southeastnorthwest mostly in private ownership, with a few federal parcels. Vasquez Rocks County Park occurs on the west side of Parker Mountain bioregion and is an iconic landmark and the location for many television shows and movies. Parker Mountain ranges from approximately 2,245 feet



to 4,126 feet in elevation and is approximately 22,207 acres (8,987 hectares) in size and ranks 31st in area of the 54 watershed bioregions. It is comprised of numerous canyons draining in multiple directions, with Escondido Canyon being a major drainage through the middle of the bioregion which drains into the Utom River.

Its geology is complex, being composed of volcanic and nonmarine (continental) sedimentary rocks. Its soils are mostly Caperton of the Xerolls suborder. It is part of the Western Transverse Range.

The climate of the Parker Mountain bioregion is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 94°F and the average mean low temperature is 40°F. The average annual precipitation is 13 inches/330 mm.

Most of the land on Parker Mountain is private, consisting of small to large lots and small ranches. The public land of Parker Mountain varies significantly with most of the 6,800 acres belonging to either the Bureau of Land Management or the Mountains Recreation and Conservation Authority Open Space.

Parker Mountain Bioregion Location

Parker Mountain is located in the eastern portion of the Utom River watershed. It is bordered by Acton Valley to the northeast, Soledad Canyon to the south, and Sierra Pelona Valley to the west and northwest. Figure 28, Map of Parker Mountain Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

Parker Mountain Flora

The Parker Mountain bioregion flora contains approximately 136 taxa with 1 additional taxon identified just to genus. Parker Mountain contains slopes dominated by Pinyon-Juniper Woodland and Chamise Chaparral. CNPS observed a total of 21 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 3 waypoints. An average of 9 taxa were observed at each waypoint. Of these 136 taxa known from Parker Mountain, 132 (97.1%) are native and 4 (2.9%) are non-native. This ratio of native to non-native plants is much higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012), and if correct, is nearly a pure native flora.

No vouchers were collected from Parker Mountain as part of this study, but 27 plant observations were made by Jonathon Holguin. CCH cites 81 vouchers, representing 73 taxa⁴⁵, recorded by others from this bioregion prior to this study. Table 28, Consolidated Statistics of the Parker Mountain Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion. More fieldwork could be done here to gain a better understanding of the flora of this bioregion.

Overall, Parker Mountain is primarily dominated by Adenostoma fasciculatum, Juniperus californica, Eriogonum fasciculatum vars., Ericamaria linearifolia, Malacothamnus marrubioides, Peritoma arborea var. arborea, and Salvia spp.

⁴⁵ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.









Parker Mountain Flora Quick Stats				
	# Taxa Observed	21		
CNPS	# Vouchers Collected	-		
	# Waypoints	3		
CCU	# Taxa Reported ⁴¹	73		
ССН	# Vouchers Collected	81		
Total # Taxa Repo	136			
Total # Vouchers Collected for Bioregion		81		

Table 28. Consolidated Statistics of the Parker Mountain Bioregion Flora

Parker Mountain Special-status Species

Five (5) special-status plants were observed or documented in Parker Mountain, including: *Amsinckia douglasiana, Calochortus clavatus* var. *gracilis, Calystegia peirsonii, Eriophyllum confertiflorum* var. *tanacetiflorum, Syntrichopappus lemmonii,* and locally rare *Cylindropuntia acanthocarpa* var. *acanthocarpa. Opuntia basilaris* var. *brachyclada* may also be present.

Parker Mountain Habitats

Parker Mountain contains approximately five of habitat types, composed of woodlands, shrublands, herblands, and rock outcrops (including the Vasquez Rocks). The predominant plant community of Parker Mountain bioregion is Pinyon-Juniper Woodland, coastal sage scrub, and Chamise Chaparral.



Above: Aerial imagery showing sedimentary formations known as Vasquez Rocks providing ample rock outcrop habitat with sparse chaparral. (Photo obtained from Google Earth 2022.)





Left: Sparse Chamise Chaparral and Coastal Sage Scrub on south slope of Parker Mountain bioregion. *Right*: Iconic Vasquez Rocks illustrating the arid chaparral and bedrock outcrop habitats of this bioregion. (Photos by David Magney.)

Parker Mountain Recommendations

Parker Mountain exhibits a low diversity of native plants due primarily to it arid environment and relatively low number of microhabitats and low levels of precipitation. It is mostly open space that was historically used for livestock grazing. This bioregion provides habitats that are transitional from coastal scrub to desert scrub due to its proximity to the Mojave Desert. It also supports rare invertebrates, such as the Vasquez Shoulderband Snail, *Helminthoglypta vasquezi*. Habitat for such wildlife should be protected from development.

PEACE VALLEY

The Peace Valley bioregion (PV) ranges from approximately 2,716 feet to 4,278 feet in elevation and is approximately 22,747 acres (9,205 hectares) in size and ranks 30th in area of the 54 bioregions of the watershed. It is mostly comprised of Peace Valley and Freeman Canyon in the southwest portion with both draining into Piru Creek/Pyramid Lake. It is part of the Western Transverse Ranges.

Its geology is mostly nonmarine (continental) sedimentary rocks. Its soils are more complex, being composed of Chaqua in the Xerepts suborder and Chino in the Xerolls suborder.

The climate of the Peace Valley is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 91°F and the average mean low temperature is 35°F. The average annual precipitation is 13 inches/330.2 mm.

Most of the land in the Peace Valley is public, with the vast majority of the 14,398 acres consisting of the Hungry Valley State Vehicular Recreation Area. The remaining 8,349 acres consists of land used for Interstate 5, the California Aqueduct, and large ranches.

Peace Valley Bioregion Location

Peace Valley is located in the Piru Creek watershed in the northern part of Los Angeles County. It is bordered by the Tehachapi Mountains bioregion to the north, the Portal Ridge and Bald Mountain bioregions to the east, the Upper Middle Piru Creek bioregion to the south, and the Hungry Valley bioregion to the west. Figure 29, Map of Peace Valley Bioregion, illustrates the



geography and topography of this bioregion and where plant observations and voucher specimens were collected. It is accessible from Interstate 5 and adjacent roads.

Peace Valley Flora

The Peace Valley bioregion flora contains approximately 358 taxa with an additional 15 taxa identified just to genus. CNPS observed a total of 89 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 11 waypoints. An average of 13.5 taxa were observed at each waypoint. Of these 357 taxa known from this bioregion, 310 (86.8%) are native and 47 (13.2%) are non-native. This ratio of native to non-native plants is significantly higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

A total of six (6) vouchers were collected from Peace Valley, primarly by David Magney and some by Jordan Collins, as part of this study, with another 150 plant observations. CCH cites 799 vouchers, representing 349 taxa⁴⁶, recorded by others from this bioregion prior to this study. Table 29, Consolidated Statistics of the Peace Valley Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, Peace Valley is primarily characterized by *Ericamaria linearifolia*, *Acmispon glaber* and annual A. spp., *Amsinckia* spp., *Arctostaphylos glauca* and A. parryana, *Artemisia tridentata*, *Astragalus* spp., *Atriplex canescens*, *Corethrogyne filaginifolia*, *Ephedra* spp., *Ericameria nauseosa* vars., *Eriogonum* spp., *Gilia* spp., *Hesperoyucca whipplei*, *Juncus* spp., *Juniperus californica*, *Leptosyne* spp., *Lomatium* spp., *Lupinus* spp., *Peritoma arborea* var. *arborea*, *Poa secunda*, *Quercus john-tuckeri*, and *Salvia* spp.

Peace Valley Flora Quick Stats				
CNPS	# Taxa Observed	89		
	# Vouchers Collected	6		
	# Waypoints	11		
COLL	# Taxa Reported ⁴³	349		
CCH	# Vouchers Collected	799		
Total # Taxa Rep	358			
Total # Vouchers Collected for Bioregion		805		

Table 29.	Consolidated	Statistics	of the	Peace	Valley	Bioregion	Flora

⁴⁶ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.





Figure 30. Map of Peace Valley Bioregion



Peace Valley Special-status Species

Seven (7) special-status plants were observed or documented in Peace Valley, including: Astragalus leucolobus, Calochortus clavatus var. clavatus, C. palmeri var. palmeri, Navarretia setiloba, Nemacladus secundiflorus var. robbinsii, Opuntia basilaris var. brachyclada, and O. basilaris var. treleasei.

Peace Valley Habitats

Peace Valley contains approximately six of habitat types, composed of woodlands, shrublands, and herblands. Woodland habitats include Joshua Tree Woodland (*Yucca brevifolia* Woodland Alliance), Pinyon-Juniper Woodland, and Cottonwood Riparian Forest (*Populus fremontii* Forest Alliance).



Above: Aerial imagery showing sparse Pinyon-Juniper Woodland vegetation along slopes in Peace Valley. (Photo obtained from Google Earth 2022.)

Shrubland habitats include Great Basin Sagebrush Scrub, Rabbitbrush Scrub (3 varieties of *Ericameria nauseosa*), Scalebroom Scrub, California Buckwheat Scrub (*Eriogonum fasciculatum* Shrubland Alliance), *Eriodictyon crassifolium* Scrub, *Ephedra* Scrub, Bladderpod Scrub.



Left: Joshua Tree Woodland and Great Basin Sagebrush Scrub. *Center*: California Buckwheat Scrub. *Right*: Bladderpod Scrub. (Photos by David Magney.)

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Herbaceous habitats within the Peace Valley bioregion include: annual and perennial grassland/herblands dominated by *Poa secunda*, *Bromus* spp. (5 species), *Camissonia campestris* and *C. strigulosa*, *Chaenactis* spp. (4 species), *Chorizanthe* spp. (3 species), *Corethrogyne filaginifolia*, *Cryptantha* spp. (6 species), *Elymus* spp. (5 species), *Eriastrum* spp. (4 species), *Eriogonum* spp. (7 herbaceous species), *Erodium cicutarium*, *Eschscholzia californica*, *Gilia* spp. (11 species), *Heterotheca* spp. (3 species), *Hordeum* spp. (4 species), *Juncus* spp. (7 species), *Layia glandulosa*, *Leptosiphon* spp. (3 species), *Leptosyne bigelovii*, *Lessingia glandulifera* var. *peirsonii*, *Linanthus* spp. (3 species), *Lomatium* spp. (6 species), *Monolopia lanceolata*, *Oenothera* spp. (3 species), *Pectocarya* spp. (2 species), *Phacelia* spp. (5 species), *Plagiobothrys* spp. (2 species), *Sisyrinchium bellum*, *Stipa* spp. (3 species), *Trifolium* spp. (4 species), and *Uropappus lindleyi*.



Above: Aerial imagery showing valley portions of Peace Valley hosting herbland and sparse shrubland habitats. (Photo obtained from Google Earth 2022.)



Left: Amsinckia tessellata. Center: Eschscholzia minutiflora. Right: Peritoma arborea var. arborea. (Photos by David Magney.)



Peace Valley Recommendations

Peace Valley exhibits a high diversity of native plants and represents a transition zone between desert and cismontane habitats that are unique and worthy of protection. It contains steep slopes that are highly susceptible to erosion. The western half of this bioregion is part of the Hungry Valley State Recreational Vehicle Area. The remainder is owned by the Los Angeles Department of Water and Power or private parties. Development should generally be precluded from this area, or confined to areas immediately adjacent to existing roads to protect the native flora and habitats.

PINE MOUNTAIN RIDGE

Pine Mountain Ridge bioregion (PMR) ranges from approximately 4,185 feet to 7,495 feet in elevation and is approximately 112,030 acres (45,338 hectares) in size and ranks 3rd in area of the 54 watershed bioregions. It is mostly comprised of Pine Mountain Ridge along with numerous other peaks such as Reyes Peak, being the tallest, trending west to east. The north slopes of the ridge drain into Piru Creek, while the southern slopes drain towards the Sespe Creek. It is part of the Western Transverse Ranges.

Its geology is mostly marine sedimentary rocks, consisting of the Juncal, Matilija, and other sedimentary formations. The ridge is a large anticline, with a well-defined syncline on the south side, with a portion of the southern edge (along the Upper Sespe Creek bioregion) expressed by a hogback-like outcrop. Its soils are a mix of Hilt of the Xeralfs suborder and Lodo of the Xerolls suborder.

The climate of the Pine Mountain Ridge is Mediterranean with cool wet winters and warm dry summers. The average mean high temperature is 80°F and the average mean low temperature is 32°F; however, these temperatures are likely high, with average high temperature probably closer to 70°F and average low temperature closer to 25°F. The average annual precipitation is 35-45 inches/889-1,143 mm, and likely higher than this, with a substantial amount in the form of snow.

Pine Mountain Ridge is 95% public land with almost all of that consisting of forest service land from Los Padres National Forest. The remaining 5,497 acres of private land consist of large lots and ranches, such as the property around Mutau Flat.

Pine Mountain Ridge Bioregion Location

Pine Mountain Ridge is an east/west running ridge and is located between the Piru and Sespe Creek watersheds, which both flow eastward. It is bordered by Cuyama Badlands, San Guillermo Mountains, and Upper Piru Creek to the north, Alamo Mountain to the east, Upper and Middle Sespe Creek to the south, and Dick Smith Wilderness to the west. The Cuyama Badlands and Dick Smith Wilderness are not bioregions and are outside the Utom River watershed. Figure 30, Map of Pine Mountain Ridge Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

The Pine Mountain Ridge bioregion is accessed on the south and west sides from State Route 33 and the Reyes Peak Road (from then western area of the ridge to just below Reyes Peak) and



trails from Camp Sheidack and Thorn Meadows on the north side and by several trails from along Sespe Creek on the south side.



Figure 31. Map of Pine Mountain Ridge Bioregion



Pine Mountain Ridge Flora

The Pine Mountain Ridge bioregion flora contains approximately 592 taxa with an additional 15 taxa identified just to genus. CNPS observed a total of 205 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 35 waypoints. An average of 14.3 taxa were observed at each waypoint. Of these 603 taxa known to occur in this bioregion, 571 (94.6%) are native and 32 (5.3%) are non-native. This ratio of native to non-native plants is significantly higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

A total of fifty-four (54) vouchers were collected from Pine Mountain Ridge, primarily by David Magney and some by Adam Hoeft, as part of this study, with another 446 plant observations. CCH cites 2,396 vouchers, representing 685 taxa⁴⁷, recorded by others from this bioregion prior to this study. Table 30, Consolidated Statistics of the Pine Mountain Ridge Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, Pine Mountain Ridge is primarily dominated by montane chaparral species up to about 6,000 feet, then by Yellow Pine Forest above that⁴⁸.

Pine Mountain Ridge Flora Quick Stats				
CNPS	# Taxa Observed	205		
	# Vouchers Collected	54		
	# Waypoints	35		
CCU	# Taxa Reported ⁴⁵	603		
ССН	# Vouchers Collected	2,396		
Total # Taxa Repo	592			
Total # Vouchers Collected for Bioregion		2,450		

Table 30. Consolidated Statistics of the Pine Mountain Ridge Bioregion Flora

Pine Mountain Ridge Special-status Species

Thirty-four (34) special-status species were observed or documented in Pine Mountain Ridge, including: Acanthoscyphus parishii var. abramsii, A. parishii var. parishii, Allium howellii var. clokeyi, Amsinckia douglasiana, Calochortus palmeri var. palmeri, Caulanthus lemmonii, Chorizanthe blakleyi, Delphinium inopinum, D. parryi ssp. pupureum, D. umbraculorum, Eriastrum sparsiflorum, Eriogonum elegans, Eriophyllum confertiflorum var. tanacetiflorum, Frasera neglecta, Fritillaria pinetorum, Gili latiflora ssp. cuyamensis, G. leptantha ssp. pinetorum, Heuchera caespitosa, Juglans californica, Layia heterotricha, Leptosiphon pygmaeus ssp. pygmaeus, Lessingia tenuis, Lilium humboldtii ssp. ocellatum, Lomatium parvifolium, Lupinus elatus, Monardella australis ssp. occidentalis, M. linoides ssp. oblonga, Navarretia

⁴⁷ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.

⁴⁸ The areas dominated by dense shrubs and very steep slopes were not surveyed as thoroughly as the forest and herbland (grassland) areas, due to difficulty of access.



peninsularis, Pentachaeta fragilis, Perideridia pringlei, Phacelia hubbyi, Piperia michaelii, Pseudognaphalium leucocephalum, and Sidotheca caryophylloides.

Pine Mountain Ridge Habitats

Pine Mountain Ridge contains approximately eleven of habitat types, composed of forests, woodlands, shrublands, herblands, and rock outcrops.



Left: View of Cuyama Badlands on the north side of Pine Mountain Ridge showing Jeffry Pine (*Pinus jeffreyi*) forest. *Right*: View from Reyes Peak along Pine Mountain Ridge. (Photos by Jordan Collins.)



Left: Shrubland habitat in lower elevations of Pine Mountain Ridge. *Right*: Hillside dominated by Pinyon-Juniper woodland featuring Single-leaf Pinyon Pine, *Pinus monophylla*, and California Juniper, *Juniperus californica*. The level valley floor exhibits shrubland dominated by Great Basin Sagebrush, *Artemisia tridentata*. (Photos by Jonathon Holguin.)





Left: View west from Reyes Peak or ridgetop, dominated by Yellow Pine Forest and Manzanita Chaparral. *Center*: Sandstone rock outcrops on Reyes Peak. *Right*: View north from Reyes Peak towards Mount Pinos with the Cuyama Badlands in between. (Photos by David Magney.)



Left: Manzanita Chaparral dominated by *Arctostaphylos glandulosa* and *Quercus wislizenii* ssp. *frutescens* on the south slope of Reyes Peak. *Right: Thermopsis macrophylla* var. *venosa* on the ridgetop west of Pine Mountain Campground. (Photos by David Magney.)



Left: Looking down (northward) upper Deal Canyon after a couple years after a wildfire. *Right*: View northward up Potrero John Canyon toward Haydock Peak with *Pseudotsuga macrocarpa* on the canyon sides. (Photos by David Magney.)





Left: View up Derrydale Canyon after Wolf Fire. *Right*: View north of Thorn Point from Topatopa Mountains with Middle Sespe Creek in between. Mount Pinos can be seen beyond Thorn Point in the distance. (Photos by David Magney.)

Pine Mountain Ridge Recommendations



Pine Mountain Ridge exhibits a moderately high diversity of native plants with a very high native to naturalized species ratio indicating the relative pristine nature of the Pine Mountain Ridge bioregion flora. It is managed by the Forest Service for watershed protection and recreational purposes. A paved road extends from State Route 33 several miles to the base of Reyes Peak, with two campgrounds on the ridgetop, Pine Mountain and Reyes Peak Campgrounds, and additional backcountry campsites on the slopes. The Forest Service maintains a fuelbreak along the ridgetop between State Route 33 and Reyes Peak as shown in the photo here. Plans to widen this fuelbreak will not provide any additional fire protection but will encourage and facilitate the invasion of the ridgetop by invasive exotic plants such as *Bromus tectorum*, *Centaurea melitensis* and *C. solstitialis*.

POLLARD POINT

The Pollard Point bioregion (PP) is a small east-west-trending mountain ridge overlooking the upper reaches of the Ventura River watershed to the south. It was formally named by David Magney in honor of botanist Henry Minter Pollard. Pollard Point ranges from approximately 2,249 feet to 4,022 feet in elevation and is approximately 2,217 acres (897 hectares) in size and ranks last in area of the 54 watershed bioregions. It is mostly comprised of ridges and Howard Creek in its eastern portion which drains into Sespe Creek. Pollard Point is part of the Western Transverse Ranges.

Its geology consists of marine sedimentary rocks, consisting of Matilija, Cozy Dell, and Coldwater formations. The soils are Aramburu variant series of the Xeralfs suborder.



The climate of Pollard Point is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 90°F and the average mean low temperature is 34°F. The average annual precipitation is 27 inches/685.8 mm.

Most of the land in Pollard Point is public, consisting of Forest Service land of the Ojai District of the Los Padres National Forest. Only 208 acres is private and is likely one ranch named Rancho Grande in the eastern portion of the bioregion.

Pollard Point Bioregion Location

Pollard Point is located on the border of the Sespe Creek and Ventura River watersheds. It is bordered by Dry Lakes Ridge to the northwest, Rose Valley to the east, and Nordhoff Ridge to the south. Figure 31, Map of Pollard Point Bioregion, illustrates the size and geographic location of this small ridge on the southwestern edge of the Utom River watershed. State Route 33 traverses Pollard Point. There are no trails through this bioregion except the Howard Creek trail along its southeastern edge.

Pollard Point Flora

The Pollard Point flora contains approximately 96 taxa, of which all are identified to species at the minimum. CNPS observed a total of 19 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 2 waypoints. An average of 13 taxa were observed at each waypoint. Of these 115 taxa known to occur in the bioregion, 97 (84.3%) are native and 18 (15.7%) are non-native. This ratio of native to non-native plants is significantly higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

Seven (7) vouchers were collected from Pollard Point by David Magney prior to this study, plus another 26 plant observations. CCH cites 103 vouchers, representing 75 taxa⁴⁹, recorded by others from this bioregion prior to this study. Table 31, Consolidated Statistics of the Pollard Point Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, Pollard Point is primarily dominated by chaparral species⁵⁰. Pollard Point is the only known occurrence in Ventura County for *Vulpia microstachys* var. *confusa*.

⁴⁹ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.

⁵⁰ The areas dominated by shrubs were not surveyed as thoroughly as the roadcut areas, due to difficulty of access.





Figure 32. Map of Pollard Point Bioregion



Pollard Point Flora Quick Stats				
	# Taxa Observed	19		
CNPS	# Vouchers Collected	7		
	# Waypoints	2		
CCU	# Taxa Reported ⁴⁷	75		
ССН	# Vouchers Collected	103		
Total # Taxa Repo	96 ⁵¹			
Total # Vouchers Co	103			

Table 31. Consolidated Statistics of the Pollard Point Bioregion Flora

Pollard Point Special-status Species

Only one (1) special-status plant is known from Pollard Point, *Juglans californica*, Southern California Black Walnut.

Pollard Point Habitats

Pollard Point contains approximately six (6) habitat types, composed of woodlands, shrublands, and rock outcrops. The dominant vegetation type on Pollard Point is chaparral, including *Adenostoma fasciculatum* Shrubland Alliance and *Ceanothus crassifolius* Shrubland Alliance on the slopes, and *Arctostaphylos glandulosa* Shrubland Alliance on the ridgetop.

There are also small pockets of *Pseudotsuga macrocarpa-Quercus chrysolepis* Forest Alliance on the north-facing slopes. Cliff faces and rock outcrops provide habitat for tracheophytes, lichens, bryophytes, and succulents.



Left: View south-southeast of north slope of ridge with State Route 33 cutting through the hillside. Dominated by Ceanothus Chaparral that was burned in the Thomas Fire of late 2017. *Right*: View east of north slope from near west end of Pollard Point. (Photos by David Magney.)

⁵¹ Based on David Magney's research of the Ventura County flora.





Above: Aerial imagery showing north-facing slopes of west end of Pollard Point bioregion that are mostly chaparral dominant with pockets of Bigcone-Spruce (*Pseudotsuga macrocarpa*) Forests. State Route 33 highlighted in yellow is Maricopa Highway snaking around Pollard Point. View is from above Dry Lakes Ridge to the north.



Left: View west of north-facing slope from SR 33 showing dense chaparral on slopes. The invasive exotic shrub Spanish Broom, *Spartium junceum*, is dense along the edges of the highway. Caltrans is working to eradicte it from the ROW. *Right*: View of dense chaparral and rock outcrop on south slope of Pollard Point from SR 33. This elevation represents the approximate highest elevation for *Malosma laurina* since it is frost sensitive. (Photos by David Magney.)



Left: View WSW of south slope of west end. Center: Shale rock outcrop. Right: Road pullout. (By Magney.)

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Pollard Point Recommendations

Pollard Point exhibits a moderate diversity of native plants. State Route 33 passes through Pollard Point and is a conduit for invasive exotic species, primarily for *Spartium junceum*, Spanish Broom. Caltrans has recently been working to eradicate it from the highway right-of-way, but regular treatment is required, as well as eradication efforts outside of the ROW on Forest Service lands. A monument honoring botanist Henry Minter Pollard should be installed at the pullout about his lifetime of botanical exploration of the Ventura River watershed that Pollard Point overlooks.

PORTAL RIDGE

Portal Ridge bioregion (PorR) ranges from approximately 2,249 feet to 4,373 feet in elevation and is approximately 58,969 acres (23,864 hectares) in size and ranks 12th in area of the 54 bioregions in the watershed. It is mostly comprised of the San Andreas Rift and Pine Canyon which drains into Leona Valley. It is part of the Western Transverse Ranges, and just on the edge of the Mojave Desert region.

Its geology is mostly composed of plutonic rocks, and its soils are mostly Baywood of the Xerolls suborder.

The climate of the Portal Ridge is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 89°F and the average mean low temperature is 36 °F. The average annual precipitation is 15-21 inches/381-533.4 mm.

Roughly 88% of the land in the Portal Ridge is private, consisting of small to large lots and small to large ranches. The 6,858 acres of public land are mostly in the south-central region and are managed by the Forest Service in the Angeles National Forest.

Portal Ridge Bioregion Location

Portal Ridge is located in the northwest most portion of the Utom River watershed. It is bordered by Antelope Valley to the north and northeast, mostly Sawmill Mountain and Liebre Mountains to the south, and Peace Valley and Bald Mountain to the west. Figure 32, Map of Portal Ridge Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

Portal Ridge Flora

The Portal Ridge bioregion flora contains approximately 521 taxa with an additional 14 taxa identified just to genus. CNPS observed a total of 131 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 9 waypoints. An average of 20.1 taxa were observed at each waypoint. Of these 131 taxa observed, 115 (87.8%) are native and 16 (12.2%) are non-native. This ratio of native to non-native plants is higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).









A total of fifty-two (52) vouchers were collected from Portal Ridge, primarily by Jordan Collins, as part of this study, with another 132 plant observations. CCH cites 1,107 vouchers, representing 488 taxa⁵², recorded by others from this bioregion prior to this study. Table 32, Consolidated Statistics of the Portal Ridge Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, Portal Ridge is primarily dominated by herblands and xeric shrublands as a transition area between the Transverse Ranges and the Mojave Desert⁵³.

Portal Ridge Flora Quick Stats				
CNPS	# Taxa Observed	131		
	# Vouchers Collected	52		
	# Waypoints	9		
CCU	# Taxa Reported ⁴⁹	488		
CCH	# Vouchers Collected	1,107		
Total # Taxa Re	521			
Total # Vouchers Collected for Bioregion		1,159		

Table 32. Consolidated Statistics of the Portal Ridge Bioregion Flora

Portal Ridge Special-status Species

Thirteen (13) special-status plants were observed or documented in Portal Ridge, including: Androsace elongata ssp. acuta, Astagalus macrodon, Atriplex coronata var. coronata, Calochortus clavatus var. gracilis, Calystegia peirsonii, Chorizanthe parryi var. fernandina (possibly extirpated), Gilia latiflora ssp. cuyamensis, Leptosiphon pygmaeus ssp. pygmaeus, Microseris sylvatica, Opuntia basilaris var. brachyclada, Perideridia pringlei, Sidalcea neomexicana (possibly extirpated), and Streptanthus campestris (possibly extirpated)

Portal Ridge Habitats

Portal Ridge contains approximately six of habitat types, composed of woodlands, shrublands, herblands, and rock outcrops.

⁵² The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.

⁵³ The areas dominated by trees and shrubs were not surveyed as thoroughly as the herbland (grassland) areas, due to difficulty of access.





Left: Elizabeth Lake is one of several sag ponds along the San Andreas Fault rift zone featuring alkali sink communities. *Right*: Fire following species like Poodle-dog Bush, *Turricula parryi*, can dominate a landscape post fire. (Photos by Jordan Collins.)



Left: A south-facing chaparral slope after the 2020 Lake Fire. Annual forbs dominate this post fire landscape including Chia (*Salvia columbariae*) and Wild Heliotrope (*Phacelia distans*). *Right*: The same chaparral slope offering a different assembledge of species including Whispering Bells, *Emmenanthe penduliflora* var. *penduliflora*, Clasping-leaved Jewelflower, *Caulanthus amplexicaulis* var. *amplexicaulis*, and several Forget-Me-Not species, *Cryptantha* spp. (Photos by Jordan Collins.)



Above: Views of Elizabeth Lake and Portal Ridge. Elizabeth Lake is a fault-related sag pond feature of the San Andreas Fault. (Photos by David Magney.)





Left: Bed of a sag pond near Elizabeth Lake. *Right*: Ridgetop on south side cominated by Chamise Chaparral. *Opuntia basilaris* var. *brachypoda* occurs on this ridge. (Photos by David Magney.)

Portal Ridge Recommendations

Portal Ridge exhibits a moderate diversity of native plants. It is mostly composed of low hills with herblands and sparse shrublands and the San Andreas Fault Zone. Most of the land is private with the Peterson Ranch now converted to a habitat mitigation bank, which will preserve the unique habitats of this area. Minimizing habitat conversion in this area is necessary to protect the natural habitats ecotonal to the maritime and desert environments.

RED MOUNTAIN

Red Mountain bioregion (RM) ranges from approximately 1,250 feet to 4,000 feet in elevation and is approximately 26,342 acres (10,660 hectares) in size and ranks 24th in area of the 54 watershed bioregions. It is mostly comprised of Red Mountain in the north portion and Charlies Canyon which drains into Castaic Creek. It is part of the Western Transverse Ranges.

Its geology is mostly composed of marine sedimentary rocks, and its soils are a mix of Chaqua of the Xerepts suborder and Baywood of the Xerolls suborder.

The climate of Red Mountain is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 93°F and the average mean low temperature is 40°F. The average annual precipitation is 15-23 inches/381-584 mm.

Most of the land on Red Mountain is public, consisting of forest service land in the Angeles National Forest. Roughly 6,190 acres of land is private, most of it is concentrated to the southern portion of the bioregion, consisting of small to large lots and small ranches.

Red Mountain Bioregion Location

Red Mountain is a system of mountains and ridges located between San Francisquito Creek and Castaic Creek watersheds. It is bordered by Sawmill Mountain to the north, San Francisquito Canyon to the east, Santa Clara River Valley to the south, and Castaic to the west. Figure 34, Map of Red Mountain Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected. Two paved roads provide access to the edges of this bioregion, Lake Huges Road and San Francisquito Canyon Road, on the west and east sides, respectively. A few Forest Service dirt roads provide access internally.





Figure 34. Map of Red Mountain Bioregion



Red Mountain Flora

The Red Mountain flora contains approximately 318 taxa with an additional 17 taxa identified just to genus. CNPS observed a total of 168 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 31 waypoints. An average of 17.6 taxa were observed at each waypoint. Of these 168 taxa observed, 143 (85.1%) are native and 25 (14.9%) are non-native. This ratio of native to non-native plants is higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

A total of sixty-six (66) vouchers were collected from Red Mountain, primarily by Jordan Collins and David Magney, as part of this study, with another 480 plant observations. CCH cites 402 vouchers, representing 247 taxa⁵⁴, recorded by others from this bioregion prior to this study. Table 33, Consolidated Statistics of the Red Mountain Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, Red Mountain is characterized by Acmispon glaber, Adenostoma fasciculatum, Artemisia californica, Ceanothus cuneatus, Cercocarpus betuloides, Clematis lasiantha, Corethrogyne filaginifolia, Eriodictyon crassifolium (vars. crassifolium and nigrescens), Eriogonum fasciculatum var. foliosum, Eriophyllum confertiflorum var. confertiflorum, Fraxinus dipetala, Hesperoyucca whipplei, Helianthus gracilentus, Heteromeles arbutifolia, Keckiella cordifolia, Malacothamnus spp. (fremontii, marrubioides, and orbiculatus), Prunus ilicifolia, Quercus berberidifolia, Rhus ovata, and Salvia mellifera on the slopes, herbaceous species such as Selaginella bigelovii on the rock outcrops, and Baccharis salicifolia, Platanus racemosa, and Salix lasiolepis along the stream courses⁵⁵.

Red Mountain Flora Quick Stats				
	# Taxa Observed	168		
CNPS	# Vouchers Collected	66		
	# Waypoints	31		
CCU	# Taxa Reported ⁵¹	247		
ССН	# Vouchers Collected	402		
Total # Taxa F	318			
Total # Vouchers Collected for Bioregion		468		

	Fable 33.	Consolidated	Statistics	of the	Red	Mountain	Bioregion	Flora
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Red Mountain Special-status Species

Nine (9) special-status species were observed or documented in Red Mountain, including: *Calochortus clavatus* var. gracilis, Calystegia peirsonii, Castilleja gleasoni, Eriastrum sparsiflorum, Harpagonella palmeri, Juglans californica, Lepechinia rossii, Opuntia basilaris var. brachyclada, and Pseudognaphalium leucocephalum.

⁵⁴ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.

⁵⁵ The areas dominated by trees and shrubs were not surveyed as thoroughly as the herbland (grassland) areas, due to difficulty of access.



Red Mountain Habitats

Red Mountain contains approximately six of habitat types, composed of woodlands, shrublands, herblands, and rock outcrops, including Coastal Sage Scrub and Chamise Chaparral vegetation alliances: *Artemisia californica-Salvia mellifera* Shrubland Alliance, *Adenostoma fasciculatum-Ceanothus cuneatus-Cercocarpus betuloides* Shrubland Alliance, Eriogonum fasciculatum Shrubland Alliance, Coast Live Oak Woodland (*Quercus agrifolia* Woodland Alliance), and Riparian Scrub and Woodland alliances *Platanus racemosa* Woodland Alliance and *Baccharis salicifolia* Shrubland Alliance.



Left: Raven's Roost rock formation above riparian course in Charlie Canyon. The xeric environment here supports chaparral, herbland, and sparse riparian habitats. *Right*: View of a chaparral dominated landscape from Ruby Canyon. (Photos by Jordan Collins.)



Left: open Coastal Sage Scrub habitat dominated by Our Lord's Candle, *Hesperoyucca whipplei*. *Center*: Raven's Roost surrounded by burned chaparral and Coastal Sage Scrub. *Right*: cliff face colonized by plants such as California Brickellbush, *Brickellia californica*. (Photos by David Magney.)

Red Mountain Recommendations

Red Mountain exhibits a moderate diversity of native plants. It is mostly composed of steep slopes that are susceptible to erosion. The combination of shrublands and riparian corridors makes the Red Mountain bioregion worthy of preservation.

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REDROCK MOUNTAIN

Redrock Mountain bioregion (RRM) ranges from approximately 1,787 feet to 4,502 feet in elevation and is approximately 9,765 acres (3,952 hectares) in size and ranks 43rd in area of the 54 bioregions of the watershed. It is mostly comprised of Redrock Mountain in the northern portion and the bioregion's largest drainage: Redrock Canyon that drains into Castaic Creek. It is part of the Western Transverse Ranges.

Its geology is composed of both marine sedimentary and metasedimentary rocks, and its soils are mostly made up of Baywoods in the Xerolls suborder.

The climate of Redrock Mountain is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 86-94°F and the average mean low temperature is 38°F. The average annual precipitation is 17-23 inches/431-584 mm.

All of the acreage in the Redrock Mountain bioregion is public, with all 9,765 acres belonging to the Forest Service of the Angeles National Forest.

Redrock Mountain Bioregion Location

Redrock Mountain is located in the Castaic Creek watershed. It is bordered by Liebre Mountain to the north, Sawmill Mountain to the east, Warm Springs Mountain to the south, and Ridge Route Ridge to the west. Figure 35, Map of Redrock Mountain Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

Redrock Mountain Flora

The Redrock Mountain bioregion flora contains approximately 164 taxa with an additional 29 taxa identified just to genus. CNPS observed a total of 178 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 17 waypoints. An average of 23.6 taxa were observed at each waypoint. Of these 178 taxa observed, 155 (87.1%) are native and 23 (12.9%) are non-native. This ratio of native to non-native plants is higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

A total of eighty-three (83) vouchers were collected from Redrock Mountain, primarly by Jordan Collins, as part of this study, with another 318 plant observations. CCH cites 14 vouchers, representing 14 taxa⁵⁶, recorded by others from this bioregion prior to this study. Table 34, Consolidated Statistics of the Redrock Mountain Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, Redrock Mountain is primarily dominated by riparian and chaparral habitats⁵⁷.

⁵⁶ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.

⁵⁷ The areas dominated by trees and shrubs were not surveyed as thoroughly as the herbland (grassland) areas, due to difficulty of access.





Figure 35. Map of Redrock Bioregion



Redrock Mountain Flora Quick Stats				
CNPS	# Taxa Observed	178		
	# Vouchers Collected	83		
	# Waypoints	17		
CCU	# Taxa Reported ⁵³	14		
ССН	# Vouchers Collected	14		
Total # Taxa Repo	164			
Total # Vouchers Collected for Bioregion		97		

Table 34. Consolidated Statistics of the Redrock Mountain Bioregion Flora

Redrock Mountain Special-status Species

Five (5) special-status species were observed or documented for Redrock Mountain, including: *Calystegia peirsonii, Clinopodium mimuloides, Juncus acutus* ssp. *leopoldii, Lilium humboldtii* ssp. *ocellatum*, and *Symphyotrichum greatae*.

Redrock Mountain Habitats

Redrock Mountain contains approximately eight (8) habitat types, composed of woodlands, shrublands, herblands, and rock outcrops. The east side of Redrock Mountain boasts a large Alder Forest along Fish Creek and the west side of Redrock Mountain is dominated by Willow Woodlands in Redrock Canyon. Redrock Mountain also supports Sycamore Woodlands, Coast Live Oak Woodlands, Chamise Chaparral, California Buckwheat Scrub, Rock Outcrops, and Talus Slope Communities.



Left: Riparian course in Fish Canyon providing habit for the rare Greata's Aster, *Symphotrichum greatae* (CRPR 1B.3) on the east side of Redrock Mountain. *Right: Alnus rhombifolia* Forest Alliance in Fish Canyon riparian course. (Photos by Jordan Collins.)





Left: Steep canyon walls in Fish Canyon on the east side of Redrock Mountain. Right: View of the western face of Redrock Mountain from Redrock Canyon displaying dense chaparral with Our Lord's Candle, Hesperoyucca whipplei, California Wild Buckwheat, Eriogonum fasciculatum var. foliolosum, and Chamise, Adenostoma fasciculatum var. fasciculatum. (Photos by Jordan Collins.)



Left: Trail through a Coast Live Oak, *Quercus agrifolia* var. *agrifolia*, woodland in Fish Canyon on the east side of Redrock Mountain. *Right*: Talus slope with rock outcrops along Castaic Creek on the west side of Redrock Mountain. (Photos by Jordan Collins.)

Redrock Mountain Recommendations

Redrock Mountain exhibits a low to moderate diversity of native plants. It is mostly composed of steep slopes that would be highly susceptible to erosion. In the past, sections of this bioregion were open for ORV use. This is no longer the case and access is limited to hiking in. This bioregion supports several sensitive species and ORV use should continue to be restricted here. There are also several old mining prospects on the west side of Redrock Mountain along Castaic Creek. These areas should not be revisited for mining purposes in an effort to conserve threatened plant species.



RIDGE ROUTE RIDGE

Ridge Route Ridge bioregion (RRR) ranges from approximately 1,692 feet to 3,669 feet in elevation and is approximately 14,186 acres (5,741 hectares) in size and ranks 38th in area of the 54 watershed bioregions. It is comprised of numerous named canyons such as Osim, Cherry, Posey, and Osito Canyons in the central portion of the bioregion, draining into Piru Creek to the west and Castaic Creek to the east. It is part of the Western Transverse Ranges.

Its geology is mostly nonmarine (continental) sedimentary rocks, and its soils are mostly composed of Chaqua of the Xerepts suborder.

The climate of Ridge Route Ridge is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 88°F and the average mean low temperature is 36°F. The average annual precipitation is 15 inches/381 mm.

Almost all of the land in the Ridge Route Ridge is public, consisting of forest service land from the Angeles National Forest. Only 768 acres are considered private or land for Interstate 5. It gets its name from the precursor to U.S. Highway 99/Interstate 5 that connected Los Angeles with Bakersfield in the 1930s with a two-lane concrete highway that generally follows the top of the north-south-trending ridge between the Castaic Valley and Tejon Pass. Only the northern and southern ends of this old highway are open to vehicles, with the entire route open only occasionally.

Ridge Route Ridge Bioregion Location

Ridge Route Ridge is located between the Castaic creek and Piru Creek watersheds. It is bordered by Liebre Mountain to the north, Redrock Mountain to the east, Whitaker Peak to the south, and Upper and Middle Piru Creek to the west. Figure 36, Map of Ridge Route Ridge Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

Ridge Route Ridge Flora

The Ridge Route Ridge bioregion flora contains approximately 188 taxa with an additional 18 taxa identified just to genus. CNPS observed a total of 143 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 18 waypoints. An average of 22.9 taxa were observed at each waypoint. Of these 143 taxa observed, 123 (86%) are native and 20 (14%) are non-native. This ratio of native to non-native plants is higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

A total of sixty-five (65) vouchers were collected from Ridge Route Ridge, primarly by Jordan Collins, as part of this study, with another 347 plant observations. CCH cites 143 vouchers, representing 94 taxa⁵⁸, recorded by others from this bioregion prior to this study. Table 35, Consolidated Statistics of the Ridge Route Ridge Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

⁵⁸ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.





Figure 36. Map of Ridge Route Ridge Bioregion


Overall, Ridge Route Ridge is primarily dominated by chaparral and coastal scrub, including Adenostoma fasciculatum, Ceanothus cuneatus, Cercocarpus betuloides, Corethrogyne filaginifolia, Ericameria nauseosa vars., Eriodictyon crassifolium var. nigrescens, Eriogonum fasciculatum vars., Eriophyllum confertiflorum var. confertiflorum, Hesperoyucca whipplei, Malacothamnus marrubioides, Quercus john-tuckeri, Rhus ovata, Salvia leucophylla, and S. mellifera on the xeric slopes, with Baccharis salicifolia, Populus fremontii, and Salix exigua and S. lasiolepis in the riparian habitats.

Ridge Route Ridge Flora Quick Stats		
CNPS	# Taxa Observed	143
	# Vouchers Collected	65
	# Waypoints	18
ССН	# Taxa Reported ⁵⁵	94
	# Vouchers Collected	143
Total # Taxa Reported for Bioregion		188
Total # Vouchers Collected for Bioregion		208

Table 35. Consolidated Statistics of the Ridge Route Ridge Bioregion Flora

Ridge Route Ridge Special-status Species

Four (4) special-status species were observed or documented in Ridge Route Ridge, including: *Acanthomintha obovata* ssp. *cordata*, *Calochortus clavatus* var. *gracilis*, *Calystegia peirsonii*, and *Juncus acutus* ssp. *leopoldii*.

Ridge Route Ridge Habitats

Ridge Route Ridge contains approximately five of habitat types, composed of woodlands, shrublands, herblands, and rock outcrops.



Left: Sandstone substrate along Old Ridge Route with chaparral vegetation. *Right*: Hillsides along Old Ridge Route are chaparral dominated by Chamise, *Adenostoma fasciculatum* var. *fasciculatum*, and California Wild Buckwheat, *Eriogonum fasciculatum* var. *foliolosum*. (Photos by Jordan Collins.)





Left: View of Pyramid Lake from Old Ridge Route along a Chamise, *Adenostoma fasciculatum* var. *fasciculatum*, dominated hillside. *Right*: Very loose scree slope in Cherry Canyon with sparse vegetation. (Photos by Jordan Collins.)



Above: Chaparral, rock outcrops, and riparian habitats of Posey Canyon on the west side of Ridge Route Ridge (Photos by David Magney.)

Ridge Route Ridge Recommendations

Ridge Route Ridge exhibits a moderate diversity of native plants. The chaparral habitats in this bioregion are fairly typical for this part of northwestern Los Angeles County and is managed by the Angeles National Forest primarily for watershed protection. No additional management recommendations are considered at this time.

ROSE VALLEY

The Rose Valley bioregion (RV) ranges from approximately 3,202 feet to 4,145 feet in elevation and is approximately 2,610 acres (1,056 hectares) in size and ranks 53rd in area of the 54 bioregions of the watershed. It is mostly comprised of Rose Valley Creek and surrounding valley, which drains into the Sespe Creek. It is part of the Western Transverse Ranges.

Its geology is composed of marine sedimentary rocks, and its soils are Aramburu variant series of the Xeralfs suborder.

The climate of Rose Valley is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 88°F and the average mean low temperature is 32°F. The average annual precipitation is 25 inches/635 mm.



Most of the land in Rose Valley is public with parcels being owned by USFS from the Los Padres National Forest. The remaining 234 acres is private, consisting of one large lot in the central portion of the valley surrounded by Forest Service lands.

Rose Valley Bioregion Location

Rose Valley is in the Sespe Creek watershed. It is bordered by Middle Sespe Creek to the north, Nordhoff Ridge to the east and south, and Pollard Point and Dry Lakes Ridge to the west. Figure 37, Map of Rose Valley Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

Rose Valley is readily accessed via Rose Valley Road, a paved road off State Route 33.

Rose Valley Flora

The Rose Valley bioregion flora contains approximately 261 taxa with 1 additional taxon identified just to genus. CNPS observed a total of 49 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 4 waypoints. An average of 17 taxa were observed at each waypoint. Of these 174 taxa known to occur in the Rose Valley bioregion, 155 (89.1%) are native and 19 (10.9%) are non-native. This ratio of native to non-native plants is significantly higher than the ratio for the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

A total of 16 vouchers were collected from Rose Valley by Jonathon Holguin, Adam Hoeft, and David Magney (14) as part of this study, with another 64 plant observations. David Magney previously made 24 vouchers prior to this study. CCH cites 267 vouchers, representing 166 taxa⁵⁹, recorded by others from this bioregion prior to this study. Table 36, Consolidated Statistics of the Rose Valley Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, Rose Valley is characterized by *Artemisia tridentata* var. *tridentata* and *Juniperus californica* in the valley bottom, chaparral species on the surrounding hillsides, and riparian and freshwater marsh plants associated with Rose Valley Falls Creek and the three Rose Lakes⁶⁰. Open areas also contain Buckwheat Cushion Scrub dominated by Eriogonum wrightii var. subscaposum

⁵⁹ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.

⁶⁰ The areas dominated by dense shrubs were not surveyed as thoroughly as the herbland (grassland) areas, due to difficulty of access.





Figure 37. Map of Rose Valley Bioregion



Rose Valley Flora Quick Stats		
	# Taxa Observed	49
CNPS	# Vouchers Collected	4
	# Waypoints	4
CCU	# Taxa Reported ⁵⁷	166
CCH	# Vouchers Collected	267
Total # Taxa Reported for Bioregion		261
Total # Vouchers Collected for Bioregion		271

Table 36. Consolidated Statistics of the Rose Valley Bioregion Flora

Rose Valley Special-status Species

Four (4) special-status species were observed or documented in Rose Valley, including: *Eriophyllum confertiflorum* var. *tanacetiflorum*, *Heuchera caespitosa*, *Nemacladus gracilis*, and *Viola purpurea* ssp. *aurea*.

Rose Valley Habitats

Rose Valley contains approximately seven of habitat types, composed of woodlands, shrublands, herblands, lacustrine, and rock outcrops. The valley floor is dominated by California Juniper Woodland and Great Basin Sagebrush Scrub with chaparral on the slopes. Cottonwood-Willow Riparian Woodland occurs along the streambanks and Freshwater Marsh vegetation occurs around the three man-made lakes, Upper, Middle, and Lower Rose Lake.



Above: Aerial imagery of Rose Valley Creek supporting Riparain Woodlands with sparse chaparral on south-facing slopes. (Photo obtained from Google Earth 2022.)





Above: Aerial imagery of the main basin in Rose Valley supporting annual herblands, sparse shrublands, and riparian vegetation on the shores of Lower Rose Valley Lake. (Photo obtained from Google Earth 2022.)



Left: View east of the lowlands portion of Rose Valley surrounded by chaparral covered hills. *Right*: View westward of area dominated by *Artemisia tridentata* var. *tridentata*, Great Basin Sagebrush, surrounded by chaparral. (Photos by David Magney.)





View of open California Juniper Woodland, dominated by Juniperus californica. (Photos by David Magney.)



Left: View west of Middle Rose Lake, a man-made lake retaining flows or Rose Valley Falls Creek. *Right*: view southeastward of Rose Valley Falls Creek as if flows into Middle Rose Lake, with Nordhoff Ridge and Rose Valley Falls in the background. (Photos by David Magney.)

Rose Valley Recommendations

Rose Valley exhibits a relatively diversity of native plants and some plants with only one occurrence in the watershed here in Rose Valley. The Los Padres National Forest is currently developing plans to remove the two dams that create Upper and Middle Rose Lakes to restore natural flows and remove impediments to migrating Rainbow Trout/Southern Steelhead. Care must be taken with this restoration effort as Middle Rose Lake is the site of a yet undescribed species of *Calyptridium*, an annual species in the Montiaceae.

SADDLEBACK MOUNTAIN

Saddleback Mountain bioregion (SadM) ranges from approximately 1,741 feet to 2,704 feet in elevation and is approximately 15,359 acres (6,216 hectares) in size and ranks 37th in area of the 54 watershed bioregions. It is mostly comprised of ridges and canyons running north and south, with Tick Canyon being the main central drainage which drains into the Utom River. It is part of the Western Transverse Ranges.

Its geology is composed of nonmarine (continental) sedimentary rocks, and its soils are mostly Caperton in the Xerolls suborder.



The climate of Saddleback Mountain is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 94°F and the average mean low temperature is 40°F. The average annual precipitation is 18 inches/457.2 mm.

Most of the land in Saddleback Mountain is privately owned, at roughly 13,222 acres, consisting of small to large lots and small ranches. The remaining 2,137 acres is managed by the Bureau of Land Management and is mostly smaller parcels scattered in the central portion of the bioregion.

Saddleback Mountain Bioregion Location

Saddleback Mountain is in the Utom River watershed. It is bordered by Mint Canyon to the north and west, Sierra Pelona Valley to the east, and Soledad Canyon and Santa Clara River Valley to the south. Figure 38, Map of Saddleback Mountain Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

Saddleback Mountain Flora

The Saddleback Mountain bioregion flora contains approximately 76 taxa with 1 additional taxon identified just to genus. CNPS observed a total of 9 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at 1 waypoint. A total of 9 taxa were observed at this waypoint. Of these 9 taxa, 8 (88.9%) are native and 1 (11.1%) is non-native. This ratio of native to non-native plants is higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

A total of one (1) voucher was collected from Saddleback Mountain, by Jonathon Holguin, as part of this study, with another 8 plant observations. CCH cites 82 vouchers, representing 63 taxa⁶¹, recorded by others from this bioregion prior to this study.

Overall, Saddleback Mountain is primarily dominated by xeric Coastal Sage Scrub and herbland species ⁶².

⁶¹ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.

⁶² The areas dominated by trees and shrubs were not surveyed as thoroughly as the herbland (grassland) areas, due to difficulty of access.





Figure 38. Map of Saddleback Mountain Bioregion



Saddleback Mountain Flora Quick Stats		
	# Taxa Observed	9
CNPS	# Vouchers Collected	1
	# Waypoints	1
CCU	# Taxa Reported ⁵⁹	63
CCH	# Vouchers Collected	82
Total # Taxa Reported for Bioregion		76
Total # Vouchers Collected for Bioregion		83

Table 37. Consolidated Statistics of the Saddleback Mountain Bioregion Flora

Table 37, Consolidated Statistics of the Saddleback Mountain Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion. More fieldwork could be done here to gain a better understanding of the flora of this bioregion.

Saddleback Mountain Special-status Species

Two (2) special-status species are documented in Saddleback Mountain, including: *Calystegia peirsonii* and *Dodecahema leptoceras* (possibly extirpated).

Saddleback Mountain Habitats

Saddleback Mountain contains approximately four of habitat types, composed of sparce woodlands, shrublands, herblands, and rock outcrops.



Above: Aerial imagery showing south-facing slopes dominated by annual herblands and rock outcrops. (Photo obtained from Google Earth 2022.)





Pseudo-panoramic view of a typical canyon of Saddleback Mountain covered by open chaparral vegetation representative of the ecotonal nature of the transition between cismontane and desert climates. (Photos by David Magney.)



Above: Aerial imagery of riparian course and floodplain along Tick Canyon supporting riparian vegetation. (Photo obtained from Google Earth 2022.)



Above: Typical vegetation conditions of the Saddleback Mountain bioregion. (Photos by David Magney.)





Above: Scalebroom Scrub and Coastal Sage Scrub vegetation in the low areas of the Saddleback Mountain bioregion. (Photos by David Magney.)

Saddleback Mountain Recommendations

Saddleback Mountain exhibits a low diversity of native plants.

SAN FRANCISQUITO CANYON

San Francisquito Canyon bioregion (SFC) ranges from approximately 1,150 feet to 4,091 feet in elevation and is approximately 28,382 acres (11,486 hectares) in size and ranks 23rd in area of the 54 bioregions of the watershed. It is mostly comprised of the canyon wash and lower elevation slopes, which drains into the Utom River. It is part of the Western Transverse Ranges.

Its geology is mostly composed of marine sedimentary rocks, and its soils are a mix of Caperton and Baywood series in the Xerolls suborder.

The climate of the San Francisquito Canyon is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 93°F and the average mean low temperature is 41°F. The average annual precipitation is 15-21 inches/381-533.4 mm.

The land in the San Francisquito Canyon is closely split between private and public land. The 12,443 acres of private land consist of small to large lots and small ranches, with the majority concentrated in the southern lower elevations, as well as Green Valley. The 15,939 acres of public land are exclusively US Forest Service land of the Angeles National Forest existing to the east and west above the canyon floor.

San Franciscquito Canyon Bioregion Location

San Francisquito Canyon a long canyon that runs southward and is a tributary of the Utom River watershed. It is bordered by Sawmill Mountain to the northwest, Del Sur Ridge to the east and southeast, Santa Clara River Valley to the south, and Red Mountain to the west. Figure 39, Map of San Francisquito Canyon Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

San Francisquito Canyon Flora

The San Francisquito Canyon bioregion flora contains approximately 405 taxa with an additional 14 taxa identified just to genus. CNPS observed a total of 110 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 9 waypoints. An average



of 22.1 taxa were observed at each waypoint. Of these 110 taxa observed, 90 (81.8%) are native and 20 (18.2%) are non-native. This ratio of native to non-native plants is higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).





Figure 39. Map of San Francisquito Canyon Bioregion



A total of twenty-two (22) vouchers were collected from San Francisquito Canyon, primarily by Jordan Collins and some by David Magney, as part of this study, with another 180 plant observations. CCH cites 369 vouchers, representing 228 taxa⁶³, recorded by others from this bioregion prior to this study. Table 38, Consolidated Statistics of the San Francisquito Canyon Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, San Francisquito Canyon is primarily dominated by shrubland and riparian species⁶⁴.

San Francisquito Canyon Flora Quick Stats		
CNPS	# Taxa Observed	110
	# Vouchers Collected	22
# Waypoints		9
ССН	# Taxa Reported ⁶¹	228
# Vouchers Collected		369
Total # Taxa Reported for Bioregion		405
Total # Vouchers Collected for Bioregion		391

Table 38. Consolidated Statistics of the San Francisquito Canyon Bioregion Flora

San Francisquito Canyon Special-status Species

Six (6) special-status species were observed or documented in San Francisquito Canyon, including: *Berberis nevinii* (most here are planted for a restoration effort), *Calochortus clavatus* var. *clavatus*, *C. clavatus* var. *gracilis*, *Calystegia peirsonii*, *Juglans californica*, and *Opuntia basilaris* var. *brachyclada*.

San Francisquito Canyon Habitats

San Francisquito Canyon contains approximately fout of habitat types, composed of woodlands, shrublands, herblands, and rock outcrops, including chaparral and coastal scrub on the slopes, herblands on the slopes and flats, and oak and riparian woodlands along the canyon bottom.

⁶³ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.

⁶⁴ The areas dominated by trees and shrubs were not surveyed as thoroughly as the herbland (grassland) areas, due to difficulty of access.





Left: View of San Francisquito Canyon highlighting the large amount of human influence on the landscape including powerlines, a power plant, roads, and aqueduct piping. *Right*: View of San Francisquito Canyon with dense chaparral vegetation. (Photos by Jordan Collins.)

San Francisquito Canyon Recommendations

San Francisquito Canyon exhibits a moderate diversity of native plants. It is mostly composed of steep slopes that would be susceptible to erosion. The canyon bottom is lined with private parcels developed with rural homes, mostly within the narrow riparian corridor. Upper slopes are mostly within the Angeles National Forest. Minimizing urban expansion into this bioregion is necessary to maintain the biodiversity of this area.

SAN GABRIEL MOUNTAINS

San Gabriel Mountains bioregion (SGabM) ranges from approximately 1,526 feet to 4,948 feet in elevation and is approximately 109,072 acres (44,141 hectares) in size and ranks 4th in area of the 54 watershed bioregions. It is mostly comprised of numerous named canyons draining northward from a long east/west ridge (includes Mount Gleason and Magic Mountain) into the upper Utom River, with Aliso Canyon being one of the largest. It is part of the Transverse Ranges.

Its geology is mostly plutonic rocks, and its soils are largely composed of Caperton of the Xerolls suborder.

The climate of the San Gabriel Mountains is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 84-94°F and the average mean low temperature is 36-42°F. The average annual precipitation is 13-35 inches/330.2-889 mm.

Most of the land in the San Gabriel Mountains is public forest service land of the Angeles National Forest. About 19,359 acres, or 17%, of the land is privately owned and consists of small to large lots and small ranches, with the majority being concentrated in lower elevations of the northwest portion of the bioregion.

San Gabriel Mountains Bioregion Location

San Gabriel Mountains is the fourth largest bioregion and is located in the Utom River watershed. It is bordered by Soledad Canyon and Santa Clara River Valley to the north and east.



This bioregion contains only a portion of the overall San Gabriel mountains, in particular the northern slopes of the mountain range. Figure 40, Map of San Gabriel Mountains Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

San Gabriel Mountains Flora

The San Gabriel Mountains bioregion flora contains approximately 572 taxa with an additional 2 taxa identified just to genus. CNPS observed a total of 23 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a 1 waypoint. A total of 23 taxa were observed at this waypoint. Of these 23 taxa observed, 19 (82.6%) are native and 4 (17.4%) are non-native. This ratio of native to non-native plants is higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

A total of five (5) vouchers were collected from San Gabriel Mountains, by David Magney, as part of this study, with another 18 plant observations. CCH cites 2,923 vouchers, representing 806 taxa⁶⁵, recorded by others from this bioregion prior to this study. Table 39, Consolidated Statistics of the San Gabriel Mountains Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, San Gabriel Mountains is primarily dominated by *Pinus jeffreyi* and montane chaparral at the higher elevations and chaparral on the northern slopes, dominated by *Adenostoma fasciculatum*⁶⁶.

San Gabriel Mountains Flora Quick Stats		
CNPS	# Taxa Observed	23
	# Vouchers Collected	5
	# Waypoints	1
ССН	# Taxa Reported ⁶³	806
	# Vouchers Collected	2,923
Total # Taxa Reported for Bioregion		572
Total # Vouchers Collected for Bioregion		2,928

Table 39.	Consolidated	Statistics -	of the San	Gabriel I	Mountains	Bioregion	Flora
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⁶⁵ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.

⁶⁶ The areas dominated by trees and shrubs were not surveyed as thoroughly as the herbland (grassland) areas, due to difficulty of access.





Figure 40. Map of San Gabriel Mountains Bioregion



San Gabriel Mountains Special-status Species

Thirty-two (32) special-status species were observed or documented in San Gabriel Mountains, including: Acanthoscyphus parishii var. parishii, Androsace elongata ssp. acuta, Arctostaphylos glandulosa ssp. gabrielensis, Calochortus catalinae, C. clavatus var. gracilis, C. palmeri var. palmeri, C. plummerae, Calystegia peirsonii, Canbya candida, Castilleja gleasoni, Cryptantha clokeyi, Galium angustifolium ssp. gracillimum, Galium jepsonii, Galium johnstonii, Gilia leptantha ssp. leptantha, Hulsea vestita ssp. gabrielensis, Juglans californica, Leptosiphon aureus, Lilium humboldtii ssp. ocellatum, Linanthus concinnus, Lupinus elatus, Malacothamnus davidsonii, Monardella australis ssp. cinerea, M. australis ssp. gabrielensis, Opuntia basilaris var. brachyclada, Packera ionophylla, Perideridia pringlei, Quercus durata var. gabrielensis, Robinia neomexicana, Symphyotrichum greatae, Syntrichopappus lemmonii, and Thysanocarpus rigidus.

San Gabriel Mountains Habitats

San Gabriel Mountains contains approximately six general habitat types, composed of woodlands, shrublands, herblands, and rock outcrops.



Above: Aerial imagery of Los Pinetos Spring displaying lush vegetation including oak and riparian |woodlands with chaparral on surrounding slopes. (Photo obtained from Google Earth 2022.)





Above: Aerial imagery of steep slopes in the San Gabriel Mountains hosting chaparral vegetation. (Photo obtained from Google Earth 2022.)



Above: Aerial imagery of lower elevation slopes closer to the Mojave Desert with sparse desert scrub and annual herblands. (Photo obtained from Google Earth 2022.)





Left & Right: Bigcone Spruce Forest, dominated by *Pseudotsuga macrocarpa*, that was burned in a wildfire. Center: Ceanothus palmeri as an understory of the Bigcone Spruce Forest. (Photos by David Magney.)

San Gabriel Mountains Recommendations

San Gabriel Mountains exhibits a relatively high diversity of native plants. It is mostly composed of steep and rugged slopes that are largely inaccessible. Numerous special-status species are known from this bioregion and their populations need to be protected from inappropriate land uses.

SAN GUILLERMO MOUNTAIN

San Guillermo Mountain bioregion (SGM) ranges from approximately 4,397 feet to 6,608 feet in elevation and is approximately 25,427 acres (10,290 hectares) in size and ranks 27th in area of the 54 watershed bioregions. It is mostly comprised of San Guillermo Mountain and numerous small drainages from the mountain in all directions, but Park Canyon draining westward is the largest, which eventually drains into the Cuyama River. It is part of the Western Transverse Ranges.

Its geology is composed of marine sedimentary rocks, and its soils are a mix of Cambids of the Xeralfs suborder and Beam of the Hilt suborder.

The climate of San Guillermo Mountain is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 87°F and the average mean low temperature is 28°F. The average annual precipitation is 27-31 inches/685.8-787.4 mm.

Almost all of the land in the San Guillermo Mountain is public, consisting of Forest Service land from the Los Padres National Forest. Only roughly 7 acres is considered privately owned but is allocated to Lockwood Valley Road.

San Guillermo Mountain Bioregion Location

San Guillermo Mountain is located between the Lockwood and Piru Creek watersheds. It is bordered by Mount Pinos and Lockwood Valley to the north, Upper Piru Creek to the southeast, and Pine Mountain Ridge to the southwest. Figure 41, Map of San Guillermo Mountain Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.





Figure 41. Map of San Guillermo Mountain Bioregion



San Guillermo Mountain Flora

The San Guillermo Mountain bioregion flora contains approximately 288 taxa with an additional 24 taxa identified just to genus. CNPS observed a total of 180 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 26 waypoints. An average of 15.8 taxa were observed at each waypoint. Of these 180 taxa observed, 171 (95%) are native and 9 (5%) are non-native. This ratio of native to non-native plants is significantly higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

A total of sixty-seven (67) vouchers were collected from San Guillermo Mountain, primarily by David Magney and some by Seth Kauppinen, as part of this study, with another 359 plant observations. CCH cites 701 vouchers, representing 314 taxa⁶⁷, recorded by others from this bioregion prior to this study. Table 40, Consolidated Statistics of the San Guillermo Mountain Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, San Guillermo Mountain is primarily dominated by Single-leaf Pinyon Pine and Great Basin Sagebrush⁶⁸.

San Guillermo Mountain Flora Quick Stats		
CNPS	# Taxa Observed	180
	# Vouchers Collected	67
	# Waypoints	26
ССН	# Taxa Reported ⁶⁵	314
	# Vouchers Collected	701
Total # Taxa Reported for Bioregion		288
Total # Vouchers Collected for Bioregion		768

Table 40. Consolidated Statistics of the San Guillermo Mountain Bioregion Flora

San Guillermo Mountain Special-status Species

Twenty-three (23) special-status species were observed or documented in San Guillermo Mountain, including: Acanthomintha obovata ssp. cordata, Allium howellii var. clokeyi, Diplacus johnstonii, Eriogonum elegans, E. kennedyi var. alpigenum, E. kennedyi var. austromontanum, E. umbellatum var. bahiiforme, Eriophyllum confertiflorum var. tanacetiflorum, Frasera neglecta, Fritillaria agrestis, Juncus luciensis, Layia heterotricha, Lessingia tenuis, Monardella linoides ssp. oblonga, Mucronea californica, Navarretia peninsularis, Nemacladus gracilis, Nemacladus secundiflorus var. robbinsii, Perideridia pringlei, Phacelia exilis, P. mohavensis, Trichostema micranthum, and Viola pinetorum ssp. grisea.

⁶⁷ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.

⁶⁸ The areas dominated by trees and shrubs were not surveyed as thoroughly as the herbland (grassland) areas, due to difficulty of access.



San Guillermo Mountain Habitats

San Guillermo Mountain contains approximately four basic habitat types, composed of woodlands, shrublands, herblands, and rock outcrops. Pinyon-Juniper Woodland is the predominant plant community, along with Great Basin Sagebrush Scrub, Cushion Buckwheat Scrub, Yellow Pine Forest, Montane Chaparral, seasonal wetlands along streams, and a large Juncus-dominated vernal pool on the west side and a few small vernal pools on the northeast side, the later named the Mike Foster Bear Ponds.



Left: View southeast showing dense Pinyon-Juniper Woodland dominated by Singleleaf Pinyon Pine, *Pinus monophylla*. *Right*: steep badlands topographs on south-facing slopes of San Guillermo Mountain support sparse Pinyon-Juniper Woodland and Bigcone Spruce Forest. (Photos by David Magney.)



Above: Aerial imagery of xeric south-facing slopes with sparse chaparral vegetation. (Photo obtained from Google Earth 2022.)





Above: West and north-west face of San Guillermo Mountain. The northwest face is heavily eroded with sparse chaparral vegetation. The west face is vegetated with chaparral and Pinyon Woodlands. (Google Earth 2022.)



Left: Yellow Pine Forest and Pinyon-Oak Woodland at Pine Springs Campground. *Right*: Fire-scared Yellow Pine Forest and Pinyon-Oak Woodland with Great Basin Sagebrush Scrub in opennings on the east side along Mutau Flat Road. (Photos by David Magney.)



Left: Cushion Buckwheat Scrub in openings of forest. *Center & Right*: *Allium howellii* var. *clokeyi* as a dominant the year after a wildfire. (Photos by David Magney.)

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Left: Juncus-dominated vernal pool on west side of bioregion, called Rush Pond. *Center*: Cushion Buckwheat Scrub dominated by *Eriogonum kennedyi* and *E. wrightii* varieties. *Right*: Rugged open Yellow Pine Forest and Great Basin Sagebrush on eastern slopes of San Guillermo Mountain. (Photos by David Magney.)

San Guillermo Mountain Recommendations

San Guillermo Mountain exhibits a relatively high diversity of native plants. It is mostly composed of slopes that would be highly susceptible to erosion. The vast majority of this bioregion is managed by the Los Padres National Forest for watershed protection and recreation, with a few OHV trails established on the east side. It possesses several vernal pools that warrant protection from vehicle damage.

SANTA CLARA RIVER VALLEY

Santa Clara River Valley bioregion (SCR) ranges from approximately sea level to 1,916 feet in elevation and is approximately 149,787 acres (60,617 hectares) in size amd ranks 2nd in area of the 54 watershed bioregions. It is mostly comprised of the floodplain and immediate low elevation hill slopes and drains into the Pacific Ocean southeast of Ventura, California. It is part of the South Coast and Western Transverse Ranges.

Its geology varies significantly and is mostly marine and nonmarine (continental) sedimentary rocks. Its soils are mostly Anacapa of the Xerolls suborder.

The climate of the Santa Clara River Valley is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 76-94°F and the average mean low temperature is 42-48°F. The average annual precipitation is 15-19 inches/381-482.6 mm.

Almost all of the land in the Santa Clara River Valley is private, consisting of numerous land use types that includes small to large lots, residential districts, small ranches, industrial districts, and large agricultural fields. Only 10,099 acres, roughly 7%, of the land is public. This public land is also diverse in classifications and includes parcels for county parks, city parks, various open spaces, water districts, The Nature Conservancy, and BLM land.



Santa Clara River Valley Bioregion Location

Santa Clara River Valley is the second largest bioregion and includes the longest continuous watershed. It is bordered by 16 other bioregions to the north and northwest, Soledad Canyon and San Gabriel Mountains to the east, Santa Susana Mountains and Oxnard Plain to the south, and the Pacific Ocean to the southwest. Figure 42, Map of Western Portion of Santa Clara River Valley Bioregion, and Figure 43, Map of Eastern Portion of Santa Clara River Valley Bioregion, illustrate the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

Santa Clara River Valley Flora

The Santa Clara River Valley bioregion flora contains approximately 459 taxa with an additional 28 taxa identified just to genus. CNPS observed a total of 180 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 28 waypoints. An average of 10.6 taxa were observed at each waypoint. Of these 180 taxa, 145 (80.6%) are native and 35 (19.4%) are non-native. This ratio of native to non-native plants is slightly higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

A total of thirty-nine (39) vouchers were collected from Santa Clara River Valley, primarly by David Magney and some from Adam Hoeft as well as Jonathon Holguin, as part of this study, with another 324 plant observations. CCH cites 3,631 vouchers, representing 911 taxa⁶⁹, recorded by others from this bioregion prior to this study. Table 41, Consolidated Statistics of the Santa Clara River Valley Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, Santa Clara River Valley is primarily dominated by riparian species such as *Salix lasiolepis* and *Baccharis salicifolia*, as well as extensive stands of the invasive exotic *Arundo donax*. Large portions of the floodplain contain Scalebroom Scrub dominated by *Lepidospartum squamatum*. Most of the upper floodplain has been converted to agricultural or industrial uses, which preclude natural habitat.

Santa Clara River Valley Flora Quick Stats		
CNPS	# Taxa Observed	180
	# Vouchers Collected	39
	# Waypoints	28
ССН	# Taxa Reported ⁶⁷	911
	# Vouchers Collected	3,631
Total # Taxa Reported for Bioregion		459
Total # Vouchers Collected for Bioregion		3,670

 Table 41. Consolidated Statistics of the Santa Clara River Valley Bioregion Flora

⁶⁹ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.





Figure 42. Map of Western Portion of Santa Clara River Valley Bioregion





Figure 43. Map of Eastern Portion of Santa Clara River Valley Bioregion



Santa Clara River Valley Special-status Species

Thirty-six (36) special-status species were observed or reported in Santa Clara River Valley, including: Abronia maritima, Amsinckia douglasiana, Astragalus pycnostachyus var. lanosissimus, Azolla microphylla, Berberis nevinii, Calochortus clavatus var. clavatus, C. clavatus var. gracilis, C. fimbriatus, C. palmeri var. palmeri, C. plummerae, Calystegia peirsonii, Chloropyron maritimum ssp. maritimum, Chorizanthe parryi var. fernandina, Cicuta maculata var. bolanderi, Deinandra paniculata, Dodecahema leptoceras, Harpagonella palmeri, Helianthus inexpectatus, Helianthus nuttallii ssp. parishii (presumed extinct), Juglans californica, Juncus acutus ssp. leopoldii, Lasthenia glabrata ssp. coulteri, Navarretia fossalis, Navarretia ojainensis, Navarretia setiloba, Nemophila parviflora var. quercifolia, Opuntia basilaris var. brachyclada, Phacelia hubbyi, P. ramosissima var. austrolitoralis, Pseudognaphalium leucocephalum, Rhinotropis cornuta var. fishiae, Saussurea americana (questionable), Senecio aphanactis, Suaeda californica, Suaeda taxifolia, and Viguiera laciniata.

Santa Clara River Valley Habitats

Santa Clara River Valley contains approximately 13 of habitat types, composed of woodlands, shrublands, herblands, and rock outcrops, including Coastal Saltmarsh, Coastal Lagoon, Freshwater Marsh, Cottonwood-Willow Woodland, Riparian Scrub, Floodplain Scrub, Coastal Dunes, Coastal Dune Scrub, Backdune Swale, Coastal Sage Scrub, Coast Live Oak Woodland, Cliff-face/Rock Outcrop, and ruderal habitats.



Above: Aerial imagery of widened floodplain along the Utom River hosting riparian scrub and woodlands. (Photo obtained from Google Earth 2022.)





Above: Aerial imagery of the Utom River supporting lush riparian woodlands. The Utom River is surrounded by agricultural developments that likely affect the water quality of the river. (Photo obtained from Google Earth 2022.)



Above: Aerial imagery of the locality of the Newhall Sunflower (*Helianthus inexpectatus*, CRPR 1B.1). (Photo obtained from Google Earth 2022.) This sunflower is endemic to this singular locality and faces encroachment of housing development. (*Helianthus inexpectatus* photo by David Magney.)





Above: Aerial imagery of the mouth of the Utom River draining into the Pacific Ocean. Habitats supported here include coastal dune communities, estuary communities, riparian woodlands, and coastal scrub. (Photo obtained from Google Earth 2022.)



Two views of lower Utom River from the south bank just west/downstream of Oxnard. (Photos by David Magney.)





Two views of McGrath Lake, a natural coastal lagoon just south of the Utom River mouth. Brachish marsh vegetation grows around the lake. (Photos by David Magney.)



Left: Utom River and adjacent areas looking downstream at Saticoy, with State Route 118 crossing the river. *Right*: Aerial view of industrial and agricultural land uses on north bank of Utom River downstream of Santa Paula. (Photos by David Magney.)



Left: View downstream of Utom River riverine and riparian habitats at 12th Street bridge in Santa Paula. *Right*: View southeast from small canyon above Chiquita Canyon Landfill with Utom River and Newhall Ranch in the distance. (Photos by David Magney.)





Left: Saline wet meadow habitat on Newhall Ranch. *Center*: Dense riparian forest of Utom River on Newhall Ranch. *Right*: View upstream of a vertical sandstone/conglomerate cliff face on the south side of the Utom River on Newhall Ranch. (Photos by David Magney.)

Santa Clara River Valley Recommendations

Santa Clara River Valley exhibits a moderate diversity of native plants mostly because much of the alluvial fans and plains next to the Utom River have been converted to agricultural, industrial, or urban land uses. It is mostly composed of broad, flat to gentle slopes against steep slopes and cliffs outside the floodplain. To maintain wetland functions, wide vegetated buffers should be established between stream and river floodplains and crops and other land uses. No development should be allowed within at least 100 feet of any riparian stream.

SANTA PAULA CANYON

Santa Paula Canyon Canyon bioregion (SPC) ranges from approximately 375 feet to 4,368 feet in elevation and is approximately 8,970 acres (3,630 hectares) in size and ranks 44th in area of the 54 bioregions of the watershed. It is mostly comprised of Santa Paula Creek and Sisar Creek, which drains into the Utom River. It is part of the Western Transverse Ranges.

Santa Paula Canyon bioregion geology is mostly marine sedimentary rocks, and its soils are a mix of Anacapa and Lodo series in the suborder of Xerolls.

The climate of Santa Paula Canyon is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 82-90°F and the average mean low temperature is 32-42°F. The average annual precipitation is 17-27 inches/431.8-685.8 mm.

The land in the Santa Paula Canyon is almost evenly split between private and public. Most of the private land is concentrated in its lower elevations, consisting of small to large lots, residential districts of Santa Paula, California, and agricultural fields. Most of the public land is concentrated up canyon at higher elevations and consists of Forest Service land part of the Ojai Ranger District of the Los Padres National Forest.

Santa Paula Canyon Bioregion Location

The Santa Paula Canyon bioregion contains Santa Paula Creek and tributaries such as Sisar Creek and is a direct tributary to the Utom River. It is bordered by the Topatopa Mountains bioregion to the north, the Santa Paula Ridge bioregion to the south and east, the Santa Clara



River Valley bioregion to the south, and the Ventura Hills and Sulphur Mountain bioregions to the west. Figure 44, Map of Santa Paula Canyon Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

This bioregion is access primarily via State Route 150 that traverses the canyon bottom from the City of Santa Paula to the south and the around Sulphur Mountain and west to Upper Ojai Valley up lower Sisar Canyon. There is one trail into the upper part of Santa Paula Canyon with connecting trails from over Santa Paula Ridge and from the top of Topatopa Mountains west of Hines Peak.

Santa Paula Canyon Flora

The Santa Paula Canyon bioregion flora contains approximately 334 taxa with an additional 11 taxa identified just to genus. CNPS observed a total of 224 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 47 waypoints. An average of 13 taxa were observed at each waypoint. Of these 224 taxa, 194 (86.6%) are native and 30 (13.4%) are non-native. This ratio of native to non-native plants is higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

A total of sixty-two (62) vouchers were collected from Santa Paula Canyon, primarly by David Magney and some by Jordan Collins, as part of this study, with another 655 plant observations. CCH cites 124 vouchers, representing 92 taxa⁷⁰, recorded by others from this bioregion prior to this study. Table 42, Consolidated Statistics of the Santa Paula Canyon Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, Santa Paula Canyon is primarily dominated by *Alnus rhombifolia* along Santa Paula Creek above Steckel Park with the slopes dominated by chaparral, coastal sage scrub, oak woodlands, and Bigcone Spruce Forest species⁷¹.

Santa Paula Canyon Flora Quick Stats		
	# Taxa Observed	224
CNPS	# Vouchers Collected	62
	# Waypoints	47
CCII	# Taxa Reported ⁶⁸	92
ССП	# Vouchers Collected	124
Total # Taxa Reported for Bioregion		334
Total # Vouchers Collected for Bioregion		186

Table 42. Consolidated Statistics of the Santa Paula Canyon Bioregion Flora

⁷⁰ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.

⁷¹ The areas dominated by trees and shrubs were not surveyed as thoroughly as the herbland areas, due to difficulty of access.





Figure 44. Map of Santa Paula Canyon Bioregion


Santa Paula Canyon Special-status Species

Six (6) special-status species were observed or documented in Santa Paula Canyon, including: *Baccharis plummerae* ssp. *pummerae*, *Fritillaria ojaiensis*, *Juglans californica*, *Lilium humboldtii* ssp. *ocellatum*, *Pseudognaphalium leucocephalum*, and *Rhinotropis cornuta* var. *fishiae*.

Santa Paula Canyon Habitats

Santa Paula Canyon contains approximately six habitat types, composed of woodlands, shrublands, herblands, and rock outcrops.



Left: Steep south-facing slopes along Santa Paula creek providing habitat for Bigcone-Spruce (*Pseudotsuga macrocarpa*). *Right*: Trail along Santa Paula Creek displaying ecotone of annual herbland, chaparral, and woodland habitats. (Photos by Jordan Collins.)



Left: White Alder (*Alnus rhombifolia*) Forest along Santa Paula Creek. *Right*: Trail along Santa Paula Canyon dominated by coastal scrub elements. (Photos by Jordan Collins.)





Left: View west/downstream of Santa Paula Canyon from the trail to Pine Flat. *Right*: View southward from Santa Paula Creek on Santa Paula Creek Mitigation Bank property. (Photos by David Magney.)



Left: Floodplain scrub and Coastal Sage Scrub on floodplain terrace of Santa Paula Canyon on Santa Paula Creek Mitigation Bank property. *Center*: White Alder, *Alnus rhombifolia*, Riparian Forest shading the perennial flow of Santa Paula Creek. *Right*: View west of Santa Paula Canyon from trail to Pine Flat. (Photos by David Magney.)



Left: Fish's Milkwort, *Rhinotropis cornuta* var. *fishiae*. *Right*: Ojai Fritillary, *Fritillaria ojaiensis*, the Type Locality for this rare plant is in Santa Paula Canyon. (Photos by David Magney.)



Santa Paula Canyon Recommendations

Santa Paula Canyon exhibits a fairly rich diversity of native plants. It is mostly composed of steep slopes that would be highly susceptible to erosion, such as occurred during the January 2005 floods. The lower canyon is almost entirely private lands that are under either urban or agricultural land uses. Generally, those larger parcels use for livestock grazing at relatively low stocking rates help maintain a healthy ecosystem whereas those lands with intensive uses, such as houses and orchard crops provide only minimal habitat values. In these areas, wide naturally vegetated buffers should be either maintained or created to protect and improve wetland and habitat functions of undeveloped lands.

The upper part of the watershed, particularly those lands upstream of the former Ferndale Ranch, are in natural condition and either part of the Santa Paula Creek Mitigation Bank or within the Los Padres National Forest. The trail up Santa Paula Canyon is very popular because of the great swimming holes and waterfall; however, too many of the users leave behind lots of trash and deface the boulders with graffiti. The Forest Service needs to patrol this trail and educate and cite those that to not respect the land.

SANTA PAULA RIDGE

Santa Paula Ridge bioregion (SPR) ranges from approximately 1,045 feet to 4,959 feet in elevation and is approximately 30,996 acres (12,544 hectares) in size and ranks 22nd in area of the 54 watershed bioregions. It is mostly comprised of Santa Paula Ridge, Santa Paula Mountain, as well as Pine Canyon, which is its largest canyon, draining into the lower Sespe Creek. It is part of the Western Transverse Ranges.

Its geology is mostly composed of marine sedimentary rocks, and its soils are a mix between San Benito and Lodo series soils from the Xeroll suborder.

The climate of Santa Paula Ridge is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 84-88°F and the average mean low temperature is 38-42°F. The average annual precipitation is 19-27 inches/482.6-685.8 mm.

Most of the land in the Santa Paula Ridge is private and is concentrated in the lower elevation southern half of the bioregion, consisting of small to large lots and small ranches. The higher elevations in the northern portion are Forest Service lands from the Los Padres National Forest and part of the Sespe Condor Sanctuary.

Santa Paula Ridge Bioregion Location

Santa Paula Ridge is located in between Santa Paula creek and Utom River watersheds. It is bordered by Topatopa Mountains to the north, Lower Sespe Creek to the east, Santa Clara River Valley to the south, and Santa Paula Canyon to the west. Figure 45, Map of Santa Paula Ridge Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.





Figure 45. Map of Santa Paula Ridge Bioregion



Santa Paula Ridge Flora

The Santa Paula Ridge bioregion flora contains approximately 117 taxa, all of which are identified to species at the minimum. CNPS observed a total of 3 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at 1 waypoint. A total of 3 taxa were observed at this waypoint. Of these 3 taxa, 3 (100%) are native and 0 (0%) are non-native. This ratio of native to non-native plants is significantly higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012). More data should be collected in this bioregion to better assess the ratio of native to non-native plant species.

No vouchers were collected from Santa Paula Ridge as part of this study, but 3 plant observations were made by David Magney. CCH cites 85 vouchers, representing 73 taxa⁷², recorded by others from this bioregion prior to this study. Table 43, Consolidated Statistics of the Santa Paula Ridge Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion. More field work should be conducted here to better understand the flora of this bioregion.

Overall, Santa Paula Ridge is primarily dominated by Coastal Sage Scrub species such as *Salvia leucophylla*⁷³.

Santa Paula Ridge Flora Quick Stats		
CNPS	# Taxa Observed	3
	# Vouchers Collected	-
	# Waypoints	1
ССН	# Taxa Reported ⁷⁰	73
	# Vouchers Collected	85
Total # Taxa Reported for Bioregion		117
Total # Vouchers Collected for Bioregion		85

Table 43. Consolidated Statistics of the Santa Paula Ridge Bioregion Flora

Santa Paula Ridge Special-status Species

Eight (8) special-status species were observed or documented in Santa Paula Ridge, including: *Calochortus fimbriatus, Delphinium umbraculorum, Fritillaria ojaiensis, Juglans californica, Lepechinia rossii, Lilium humboldtii* ssp. ocellatum, Rhinotropis cornuta var. fishiae, and Symphyotrichum greatae.

Santa Paula Ridge Habitats

Santa Paula Ridge contains approximately five habitat types, composed of woodlands, shrublands, herblands, and rock outcrops.

⁷² The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.

⁷³ The areas dominated by trees and shrubs were not surveyed as thoroughly as the herbland (grassland) areas, due to difficulty of access.

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Above: Aerial imagery of a north-facing slope along Santa Paula Ridge supporting Bigcone Spruce, *Pseudotsuga macrocarpa*, and *Pinus lambertiana* Forests. (Photo obtained from Google Earth 2022.)



Above: Aerial imagery of south-facing slopes supporting sparse chaparral vegetation. (Photo obtained from Google Earth 2022.)





Left: view west-southwest of Coastal Sage Scrub dominated by Purple Sage, *Salvia leucophylla*. *Right*: View northward of steep slopes dominated by *Salvia leucophylla*. (Photos by David Magney.)



Left: View west of south-facing slope of ridge with oil extraction facilities, which are common on the south side of Santa Paula Ridge. *Right*: Open Coastal Sage Scrub dominated by *Salvia leucophylla* in area used for livestock grazing. (Photos by David Magney.)

Santa Paula Ridge Recommendations

Santa Paula Ridge exhibits a moderate diversity of native plants. It is mostly composed of steep slopes that would be highly susceptible to erosion. The areas dominated by non-native grasses would likely benefit from prescribed grazing, which is an active land practice on the south side of this bioregion, along with oil exploration and extraction.

SANTA SUSANA MOUNTAINS

Santa Susana Mountains bioregion (SSM) ranges from approximately 191 feet to 3,747 feet in elevation and is approximately 167,689 acres (67,863 hectares) in size and is the largest of the 54 watershed bioregions. It is comprised of numerous named mountains, ridges, valleys, and canyons. Some of the most prominent features include South Mountain, Big Mountain, Oak Ridge, Tripas Canyon, and Grimes Canyon which drains into the Utom River. It is part of the Western Transverse Ranges.



Its geology is diverse and consists mostly of a mix of marine sedimentary rocks, while the soils are composed of either San Benito series in the Xerolls suborder or Calleguas series of the Orthents suborder.

The climate of the Santa Susana Mountains is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 82-94°F and the average mean low temperature is 43°F. The average annual precipitation is 17-25 inches/431.8-635 mm.

Roughly 80% of the land in the Santa Susana Mountains is privately owned, consisting of numerous land use types that includes small to large lots, small to large ranches, residential districts, industrial districts, and large agricultural fields. About 31,182 acres of the land is public. This public land is also diverse in classifications and includes parcels for county parks, regional parks, various open spaces, Mountains Recreation and Conservation Authority, Nature Conservancy, and BLM land.

Santa Susana Mountains Bioregion Location

Santa Susana Mountains is the largest bioregion and is located to the south of the Utom River watershed. It is bordered by Santa Clara River Valley to the north, northeast, and west, San Fernando Valley, Las Posas, and Simi Valley to the south, and Oxnard Plain to the southwest. Figure 46, Map of Santa Susana Mountains Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

Santa Susana Mountains Flora

The Santa Susana Mountains bioregion flora contains approximately 405 taxa with an additional 9 taxa identified just to genus. CNPS observed a total of 115 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 20 waypoints. An average of 10 taxa were observed at each waypoint. Of these 115 taxa observed, 86 (74.8%) are native and 29 (25.2%) are non-native. This ratio of native to non-native plants is slightly lower than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

A total of twenty-one (21) vouchers were collected from Santa Susana Mountains, primarly by David Magney and some by Jonathon Holguin, as part of this study, with another 211 plant observations. CCH cites 2,129 vouchers, representing 648 taxa⁷⁴, recorded by others from this bioregion prior to this study. Table 44, Consolidated Statistics of the Santa Susana Mountains Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

⁷⁴ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.





Figure 46. Map of Santa Susana Mountains Bioregion

Overall, Santa Susana Mountains is primarily dominated by herblands, Coastal Sage Scrub, and Coast Live Oak Woodland species.



Santa Susana Mountains Flora Quick Stats		
CNPS	# Taxa Observed	115
	# Vouchers Collected	21
	# Waypoints	20
ССН	# Taxa Reported ⁷²	648
	# Vouchers Collected	2,129
Total # Taxa Reported for Bioregion		405
Total # Vouchers Collected for Bioregion		2,150

Table 44. Consolidated Statistics of the Santa Susana Mountains Bioregion Flora

Santa Susana Mountains Special-status Species

Twentythree (23) special-status species were observed or documented in Santa Susana Mountains, including: Amsinckia douglasiana, Calochortus catalinae, C. clavatus var. clavatus, C. clavatus var. gracilis, C. fimbriatus, C. plummerae, Calystegia peirsonii, Chorizanthe parryi var. fernandina, Cicuta maculata var. bolanderi, Convolvulus simulans, Deinandra minthornii, Harpagonella palmeri, Hordeum intercedens, Horkelia cuneata var. puberula, Juglans californica, Lupinus paynei, Malacothamnus davidsonii, Mucronea californica, Navarretia ojaiensis, Orcuttia californica, Phacelia hubbyi, Pseudognaphalium leucocephalum, and Robinia neomexicana.

Santa Susana Mountains Habitats

Santa Susana Mountains contains approximately six genera habitat types, composed of woodlands, shrublands, herblands, and rock outcrops.



Left: View northwest of burned Lion Canyon on the northeast slope of the Santa Susana Mountains. This canyon was the set for the popular TV show, Dukes of Hazard. *Right*: Aerial obligue view west of the Oak Ridge portion of the Santa Susana Mountains, dominated by herblands on the summit and Coast Live Oak Woodland on the north-facing slopes. (Photos by David Magney.)





Above: Aerial imagery of a south-facing slope in the Santa Susana Mountains. Slopes here are dominated by chaparral and annual herbland vegetation with oak woodlands lining drainages. (Photo from Google Earth 2022.)



Left: View westward of steep badlands topography on Newhall Ranch. *Center*: Valley Oak, *Quercus lobata*, on the summit of the Santa Susana Mountains in Los Angeles County. *Right*: View eastward of steep bank dominated by Coastal Sage Scrub on Newhall Ranch. (Photos by David Magney.)





Above: Aerial imagery of a north-facing slope in the Santa Susana Mountains. Slopes here support annual herbland, chaparral, and woodland vegetation. (Photo from Google Earth 2022.)

Santa Susana Mountains Recommendations

Santa Susana Mountains exhibits a relatively high diversity of native plants. It is mostly composed of steep to gentle slopes that are used for ranching, oil and gas extraction, and aggregate mining. The areas dominated by non-native grasses would likely benefit from prescribed grazing. Preserving significant portions of the herbland habitats in this bioregion will be important to protect biodiversity of the watershed.

SAWMILL MOUNTAIN

Sawmill Mountain bioregion (SawM) ranges from approximately 1,956 feet to 5,789 feet in elevation and is approximately 65,952 acres (26,690 hectares) in size and ranks 11th in area of the 54 bioregions of the watershed. It is mostly comprised of named high mountain ridges with numerous canyons, most of which draining south and west with the largest canyon being Elizabeth Lake Canyon running through the bioregion and draining into Castaic Lake. It is part of the Western Transverse Ranges.

Its geology is a mix of marine sedimentary and metasedimentary rocks, while the soils are composed of Baywood series in the Xerolls suborder.

The climate of Sawmill Mountain is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 82-94°F and the average mean low temperature is 36-40°F. The average annual precipitation is 23-29 inches/584.2-736.6 mm.



Most of the land on Sawmill Mountain is public Forest Service land in the Angeles National Forest. Only 2,175 acres, roughly 3%, is privately owned and consists of small to large lots and small ranches restricted in and around Elizabeth Lake Canyon.

Sawmill Mountain Bioregion Location

The Sawmill Mountain bioregion is located in the eastern portion of Castaic Creek/Lake watershed. It is bordered by Portal Ridge to the north, San Francisquito Canyon to the east, Red Mountain and Warm Springs Canyon to the south, and Redrock Mountain and Liebre Mountain to the west. This Sawmill Mountain should not be confused with the Sawmill Mountain in Ventura County that is part of Mount Pinos. Figure 46, Map of Sawmill Mountain Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

Sawmill Mountain Flora

The Sawmill Mountain bioregion flora contains approximately 427 taxa with an additional 65 taxa identified just to genus. CNPS observed a total of 457 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 104 waypoints. An average of 20.5 taxa were observed at each waypoint. Of these 457 taxa observed, 412 (90.2%) are native and 45 (9.8%) are non-native. This ratio of native to non-native plants is significantly higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

A total of two hundred fifty-one (251) vouchers were collected from Sawmill Mountain, primarly by David Magney and Jordan Collins, as part of this study, with another 1,964 plant observations. CCH cites 575 vouchers, representing 329 taxa⁷⁵, recorded by others from this bioregion prior to this study. Table 45, Consolidated Statistics of the Sawmill Mountain Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, Sawmill Mountain is primarily dominated by chaparral and woodland species⁷⁶.

⁷⁵ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.

⁷⁶ The areas dominated by trees and shrubs were not surveyed as thoroughly as the herbland (grassland) areas, due to difficulty of access.





Figure 47. Map of Sawmill Mountain Bioregion



Sawmill Mountain Flora Quick Stats		
CNPS	# Taxa Observed	457
	# Vouchers Collected	251
	# Waypoints	104
ССН	# Taxa Reported ⁷⁴	329
	# Vouchers Collected	575
Total # Taxa Reported for Bioregion		427
Total # Vouchers Collected for Bioregion		826

Table 45. Consolidated Statistics of the Sawmill Mountain Bioregion Flora

Sawmill Mountain Special-status Species

Nine (9) special-status species were observed or documented in Sawmill Mountain, including: Calystegia peirsonii, Clinopodium mimuloides, Cryptantha clokeyi, Eriastrum sparsiflorum, Eriophyllum confertiflorum var. tanacetiflorum, Lilium humboldtii ssp. ocellatum, Lupinus elatus, Monardella linoides ssp. oblonga, and Symphyotrichum greatae.

Sawmill Mountain Habitats

Sawmill Mountain contains approximately six general habitat types, composed of forests, woodlands, shrublands, herblands, and rock outcrops.



Left: Chaparral on southeast-facing slope in South Portal Canyon dominated by Bigberry Manzanita, *Arctostaphylos glauca*. *Right*: Drainage on northern flank of Grass Mountain, providing habitat for Bigcone Spruce, *Pseudotsuga macrocarpa*. (Photos by Jordan Collins.)





Left: Chaparral slope on northern flank of Sawmill Mountain dominated by the fire following Poodle-dog Bush, *Turricula parryi. Right*: Bush Interior Live Oak, *Quercus wislizeni* ssp. *frutescens*, resprouting on a north-facing chaparral slope after the 2019 Lake Fire. (Photos by Jordan Collins.)



Left: Riparian course in Prospect Canyon displaying ectone of chaparral, riparian, and oak woodland habitats. *Right*: Wide floodplain of Fish Canyon dominated by nonnatives, Slender Wild Oats, *Avena barbata*, and Rabbitfoot Grass, *Polypogon monspeliensis*, after the Lake Fire. (Photos by Jordan Collins.)

Sawmill Mountain Recommendations

Sawmill Mountain exhibits a high diversity of native plants. Most of this bioregion is managed by the Angeles National Forest for watershed protection and recreational uses, and those objectives are congruent with maintaining biodiversity of this bioregion.

SIERRA PELONA

Sierra Pelona bioregion (SP) ranges from approximately 1,598 feet to 4,980 feet in elevation and is approximately 81,412 acres (26,690 hectares) in size and ranks 8th in area of the 54 watershed bioregions. It is mostly comprised of a large ridge with few named mountains and numerous named canyons draining to its south with Texas Canyon being one of the largest, all of which drains into the Utom River. It is part of the Western Transverse Ranges.



Its geology is composed of marine sedimentary and metasedimentary rocks, and its soils are mostly composed of the Gaviota series in the Orthents suborder.

The climate of the Sierra Pelona is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 86-92°F and the average mean low temperature is 38-42°F. The average annual precipitation is 19-21 inches/482.6-533.4 mm.

The land in the Sierra Pelona is closely split between public and private. 42,371 acres are public and mostly consist of Forest Service land in the Angeles National Forest concentrated in the northwest portion of the bioregion. The remaining 39,040 acres are concentrated in the eastern and southern portions and are composed of small to large lots and large ranches.

Sierra Pelona Bioregion Location

Sierra Pelona is a large mountain range and drains into several smaller watersheds. It is bordered by Leona and Anaverde Valleys to the north, Acton Valley, Sierra Pelona Valley, and Mint Canyon to the southeast, Santa Clara River Valley to the south, and Bouquet Canyon to the west. Leona and Anaverde Valleys are not a part of any bioregion and are outside of the Utom River watershed. Figure 48, Map of Sierra Pelona Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

Sierra Pelona Flora

The Sierra Pelona bioregion flora contains approximately 465 taxa with an additional 4 taxa identified just to genus. CNPS observed a total of 98 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 13 waypoints. An average of 20.1 taxa were observed at each waypoint. Of these 98 taxa observed, 84 (85.7%) are native and 14 (14.3%) are non-native. This ratio of native to non-native plants is higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

A total of twenty-five (25) vouchers were collected from Sierra Pelona, primarily by Adam Hoeft and Jonathon Holguin, as part of this study, with 236 plant observations. CCH cites 1,064 vouchers, representing 451 taxa⁷⁷, recorded by others from this bioregion prior to this study. Table 46, Consolidated Statistics of the Sierra Pelona Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, Sierra Pelona is primarily dominated by chaparral species⁷⁸.

⁷⁷ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.

⁷⁸ The areas dominated by trees and shrubs were not surveyed as thoroughly as the herbland (grassland) areas, due to difficulty of access.





Figure 48. Map of Sierra Pelona Bioregion



Sierra Pelona Flora Quick Stats		
CNPS	# Taxa Observed	98
	# Vouchers Collected	25
	# Waypoints	13
ССН	# Taxa Reported ⁷⁶	451
	# Vouchers Collected	1,064
Total # Taxa Reported for Bioregion		465
Total # Vouchers Collected for Bioregion		1,089

Table 46. Consolidated Statistics of the Sierra Pelona Bioregion Flora

Sierra Pelona Special-status Species

Seventeen (17) special-status species were observed or documented in Sierra Pelona, including: Androsace elongata ssp. acuta, Astragalus hornii var. hornii, Calochortus clavatus var. clavatus, C. clavatus var. gracilis, Calystegia peirsonii, Castilleja gleasoni, Chorizanthe parryi var. parryi, Cryptantha clokeyi, Harpagonella palmeri, Malacothamnus davidsonii, Navarretia fossalis, N. setiloba, Nemacladus secundiflorus var. robbinsii, Opuntia basilaris var. brachyclada, Orcuttia califórnica, Perideridia pringlei, and Syntrichopappus lemmonii.

Sierra Pelona Habitats

Sierra Pelona contains approximately five habitat types, composed of woodlands, shrublands, herblands, and rock outcrops.



Above: Aerial imagery of lower elevation slopes close to the Mojave Desert. The xeric slopes here are dominated by sparse desert scrub and annual herbland habitats. (Photo from Google Earth 2022.)





Above: Aerial imagery of south-facing slopes along Sierra Pelona Ridge supporting chaparral, riparian, and oak woodland habitats. (Photo from Google Earth 2022.)



Above: The Sierra Pelona bioregion is almost exclusively Chamise-Ceanothus Chaparral with some impressive rock outcrops. Openings in the chaparral offer rich assemblages of wildflowers. (Photos by David Magney.)





Left: Open Ceanothus cuneatus Shrubland Alliance in Rush Canyon. Center: Wildflowers display in early June in openings of Ceanothus Chaparral in Rush Canyon. Right: Close-ups of Clarkia purpurea ssp. quadrivulnera, C. bottae, and Delphinium parryi ssp. parryi from a field of wildflowers. (Photos by David Magney.)



From left to right: Woolly Bluecurls (*Trichostema lanatum*), Cleveland Spineflower (*Chorizanthe clevelandii*), a lavender-colored Sapphire Woollystar (*Eriastrum sappharinum* ssp. *sappharinum*), Butterfly Mariposa Lily (*Calochortus venustus*), and Peirson's Morning-glory (*Calystegia peirsonii*). (Photos by David Magney.)



Left: Buck Brush, Ceanothus cuneatus, in fruit. Center: Four-spot Purple Clarkia, Clarkia purpurea ssp. quadrivulnera. Right: Goldenstars, Bloomeria crocea ssp. crocea, in front of Beavertail Cactus, Opuntia basilaris var. basilaris. (Photos by David Magney.)



Sierra Pelona Recommendations

Sierra Pelona exhibits a rich diversity of native plants particularly considering that is is mostly chaparral and coastal scrub. A portion of this bioregion is managed as an OHV recreation area with many trails and 4-wheel drive roads, which has potential to result in the destruction of natural vegetation; however, the Angeles National Forest seems to be doing a good job at managing this potentially destructive activity since illegal trails seem to be a minimum.

SIERRA PELONA VALLEY

Sierra Pelona Valley bioregion (SPV) ranges from approximately 1,952 feet to 3,321 feet in elevation and is approximately 8,490 acres (3,435 hectares) in size and ranks 46th in area of the 54 bioregions of the watershed. It is mostly comprised of Sierra Pelona Valley and Agua Dulce Canyon which drains into the Utom River in Soledad Canyon. It is part of the Western Transverse Ranges.

Its geology is composed of marine sedimentary and metasedimentary rocks, and its soils are mostly of the Caperton series in the Xerolls suborder.

The climate of the Sierra Pelona Valley is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 94°F and the average mean low temperature is 38°F. The average annual precipitation is 15 inches/381 mm.

Most of the land in the Sierra Pelona Valley is private, consisting of small to large lots and small ranches. Only about 420 acres are classified as public and are managed by a variety of agencies such as BLM, Los Angeles County, and Santa Clarita Watershed Recreation and Conservation Authority.

Sierra Pelona Valley Bioregion Location

Sierra Pelona Valley is located in the Agua Dulce Creek watershed. It is bordered by Sierra Pelona to the north, Parker Mountain to the east, Soledad Canyon to the south, and Saddleback Mountain to the west. Figure 49, Map of Sierra Pelona Valley Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

Sierra Pelona Valley is accessed via paved roads such as the Sierra Highway and Agua Dulce Canyon Road, plus other public roads.

Sierra Pelona Valley Flora

The Sierra Pelona Valley flora contains approximately 96 taxa with an additional 6 taxa identified just to genus. CNPS observed a total of 28 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 2 waypoints. An average of 15.5 taxa were observed at each waypoint. Of these 28 taxa observed, 20 (71.4%) are native and 8 (28.6%) are non-native. This ratio of native to non-native plants is slightly lower than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).



CALIFORNIA NATIVE PLANT SOCIETY



A total of one (1) voucher was collected from Sierra Pelona Valley, by Jonathon Holguin, as part of this study, with another 30 plant observations. CCH cites 132 vouchers, representing 96 taxa⁷⁹, recorded by others from this bioregion prior to this study. Table 47, Consolidated Statistics of the Sierra Pelona Valley Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion. More field work could be done here to gain a better understanding of the flora of this bioregion.

Overall, Sierra Pelona Valley is primarily dominated by open xeric shrubland species⁸⁰.

Sierra Pelona Valley Flora Quick Stats		
CNPS	# Taxa Observed	28
	# Vouchers Collected	1
	# Waypoints	2
ССН	# Taxa Reported ⁷⁸	96
	# Vouchers Collected	132
Total # Taxa Reported for Bioregion		96
Total # Vouchers Collected for Bioregion		133

Table 47. Consolidated Statistics of the Sierra Pelona Valley Bioregion Flora

Sierra Pelona Valley Special-status Species

Three (3) special-status species were observed or documented in Sierra Pelona Valley, including: *Calochortus clavatus* var. *gracilis, Calystegia peirsonii,* and *Syntrichopappus lemmonii.*

Sierra Pelona Valley Habitats

Sierra Pelona Valley contains approximately four of habitat types, composed of woodlands, shrublands, and herblands, including Juniper Woodland, chaparral, coastal sage scrub, and grasslands, plus rural development.

⁷⁹ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.

⁸⁰ The areas dominated by trees and shrubs were not surveyed as thoroughly as the herbland (grassland) areas, due to difficulty of access.





Above: Aerial imagery of hillside drainage supporting shrubland habitat. (Photo from Google Earth 2022.)



Above: Aerial imagery of low elevation slopes in Sierra Pelona Valley supporting sparse shrublands and annual herblands. (Photo from Google Earth 2022.)



Sierra Pelona Valley Recommendations

Sierra Pelona Valley exhibits a low diversity of native plants; however, out current knowledge of the flora of this bioregion is minimal at best. Additional research is warranted.

SOLEDAD CANYON

Soledad Canyon bioregion (SolC) ranges from approximately 1,608 feet to 3,616 feet in elevation and is approximately 25,335 acres (10,253 hectares) in size and ranks 26th in area of the 54 watershed bioregions. It is mostly comprised of the main Soledad Canyon and adjacent tributaries which drain into the Utom River. It is part of the Western Transverse Ranges.

Its geology is mostly composed of plutonic rocks, and its soils variable and include Caperton series in the Xerolls suborder and Avawatz series in the Fluvents suborder.

The climate of the Soledad Canyon is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 94°F and the average mean low temperature is 37°F. The average annual precipitation is 13-19 inches/330.2-482.6 mm.

Most of the land in the Soledad Canyon is private, consisting of small to large lots and small ranches as well as a few mining operations. Roughly 7,117 acres are designated public land and are managed by a variety of agencies that include Mountains Recreation and Conservation Authority, BLM, Nature Conservancy, and USFS of the Angeles National Forest.

Soledad Canyon Bioregion Location

Soledad Canyon is located in the Utom River watershed. It is bordered by Acton Valley, Parker Mountain, Sierra Pelona Valley, and Saddleback Mountain to the north, San Gabriel Mountains to the east and south, and Santa Clara River Valley to the west. Figure 50, Map of Soledad Canyon Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

Soledad Canyon Flora

The Soledad Canyon bioregion flora contains approximately 465 taxa with an additional 6 taxa identified just to genus. CNPS observed a total of 93 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 10 waypoints. An average of 13.4 taxa were observed at each waypoint. Of these 93 taxa observed, 80 (86%) are native and 13 (14%) are non-native. This ratio of native to non-native plants is higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).





Figure 50. Map of Soledad Canyon Bioregion



A total of seventeen (17) vouchers were collected from Soledad Canyon, primarly by David Magney, Jordan Collins, and Jonathon Holguin, as part of this study, with another 131 plant observations. CCH cites 1,235 vouchers, representing 467 taxa⁸¹, recorded by others from this bioregion prior to this study. Table 48, Consolidated Statistics of the Soledad Canyon Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, Soledad Canyon is characterized by the Utom River and its floodplain and the adjacent hills⁸². The riparian areas are dominated by Fremont Cottonwood, *Populus fremontii*, and the bases of slopes are characterized by Coast Live Oak, *Quercus agrifolia*, which the slopes contain open Coastal Sage Scrub vegetation.

Soledad Canyon Flora Quick Stats		
CNPS	# Taxa Observed	93
	# Vouchers Collected	17
	# Waypoints	10
ССН	# Taxa Reported ⁸⁰	467
	# Vouchers Collected	1,235
Total # Taxa Reported for Bioregion		465
Total # Vouchers Collected for Bioregion		1,252

Table 48. Consolidated Statistics of the Soledad Canyon Bioregion Flora

Soledad Canyon Special-status Species

Seventeen (17) special-status species were observed or documented in Soledad Canyon, including: Amsinckia douglasiana, Androsace elongata ssp. acuta, Calochortus clavatus var. gracilis, C. plummerae, Calystegia peirsonii, Camissoniopsis lewisii, Castilleja gleasoni, Delphinium parryi ssp. purpureum, Dodecahema leptoceras (not seen in surveys, CNDDB records exist), Eriastrum sparsiflorum, Hulsea vestita ssp. gabrielensis, Leptosiphon aureus, Opuntia basilaris var. brachyclada, Perideridia pringlei, Stylocline masonii, Symphyotrichum greatae, and Syntrichopappus lemmonii

Soledad Canyon Habitats

Soledad Canyon contains approximately six habitat types, composed of woodlands, shrublands, herblands, and rock outcrops.

⁸¹ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.

⁸² The areas dominated by trees and shrubs were not surveyed as thoroughly as the herbland (grassland) areas, due to difficulty of access.





Left: Soledad Canyon floodplain dominated by Thickleaf Yerba Santa, *Eriodictyon crassifolium*. *Right*: Soledad Canyon floodplain habitats referred to as Riversidian Alluvial Fan Sage Scrub. (Photos by Jordan Collins.)



Above: Arid slopes above the floodplain in the area of Ravena. (Photos by David Magney.)





Left: Coastal Sage Scrub and chaparral habitats on the steep and rugged slopes on both sides of the Utom River. *Right*: Remnants of Cottonwood Forest along Soledad Canyon Road were part of the Utom River floodplain riparian habitat. Litter is a big problem in this bioregion. (Photos by David Magney.)

Soledad Canyon Recommendations

Soledad Canyon exhibits a relatively high diversity of native plants; however, nearly all of the land is in private ownership and many property owners are not respectful of the natural habitats. Floodplain areas need to be preserved and their natural vegetation and processes restored.

SULPHUR MOUNTAIN

The Sulphur Mountain bioregion (SM) ranges from approximately 227 feet to 2,612 feet in elevation and is approximately 33,916 acres (13,725 hectares) in size and ranks 20th in area of the 54 watershed bioregions. It is mostly comprised of the Sulphur Mountain ridge with numerous named canyons and drainages, with the southern portion draining into Utom River and the northern portion into Ojai Valley. Only the eastern half of Sulphur Mountain is within the Utom River watershed, with the western half part of the Ventura River watershed. It is part of the Western Transverse Ranges.

Its geology is mostly composed of marine sedimentary rocks, and its soils are a mix of Botella and San Benito series of the Xerolls suborder.

The climate of Sulphur Mountain is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 84°F and the average mean low temperature is 38-46°F. The average annual precipitation is 21-29 inches/533.4-736.6 mm.

All of the land on Sulphur Mountain is private, consisting of small to large lots and small to large ranches.

Sulphur Mountain Bioregion Location

Sulphur Mountain is a part of the Ventura River, Santa Paula Creek, and Utom River watersheds. It is bordered by Ojai Valley and Topatopa Mountains to the north, Santa Paula Canyon to the east, Ventura Hills to the south, and Red Mountain and Lake Casitas to the west. Figure 51, Map



of Sulphur Mountain Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

Sulphur Mountain Flora

The Sulphur Mountain bioregion flora contains approximately 262 taxa with 1 additional taxon identified just to genus. CNPS observed a total of 20 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 2 waypoints. An average of 9.5 taxa were observed at each waypoint. Of these 20 taxa observed, 17 (85%) are native and 3 (15%) are non-native. This ratio of native to non-native plants is higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

A total of one (1) voucher was collected from Sulphur Mountain, by David Magney, as part of this study, with another 19 plant observations. CCH cites 227 vouchers, representing 149 taxa⁸³, recorded by others from this bioregion prior to this study. Table 49, Consolidated Statistics of the Sulphur Mountain Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, Sulphur Mountain is primarily dominated by Coast Live Oak Woodlands, herblands, and Coastal Sage Scrub⁸⁴.

Sulphur Mountain Flora Quick Stats		
CNPS	# Taxa Observed	20
	# Vouchers Collected	1
	# Waypoints	2
ССН	# Taxa Reported ⁸²	149
	# Vouchers Collected	227
Total # Taxa Reported for Bioregion		262
Total # Vouchers Collected for Bioregion		228

Table 49. Consolidated Statistics of the Sulphur Mountain Bioregion Flora

Sulphur Mountain Special-status Species

Eleven (11) special-status species were observed or documented in Sulphur Mountain, including: Allium howellii var. clokeyi, Astragalus pycnostachyus var. lanosissimus, Baccharis plummerae ssp. plummerae, Calochortus catalinae, C. clavatus var. clavatus, C. fimbriatus, Fritillaria agrestis, Juglans californica, Lasthenia ferrisiae, Navarretia ojaiensis, and Rhinotropis cornuta var. fishiae.

⁸³ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.

⁸⁴ The areas dominated by trees and shrubs were not surveyed as thoroughly as the herbland (grassland) areas, due to difficulty of access.





Figure 51. Map of Sulphur Mountain Bioregion



Sulphur Mountain Habitats

Sulphur Mountain contains approximately six of habitat types, composed of woodlands, shrublands, herblands, and rock outcrops. Coast Live Oak Woodland is the primary plant community, dominated by *Quercus agrifolia*. Coastal Sage Scrub dominated by *Artemisia californica* and *Salvia apiana*, *S. leucophylla*, and *S. mellifera* occupy the arid south-facing slopes along with extensive open herbland areas.



Above: Aerial imagery of steep south-facing slopes along Sulphur Mountain supporting sparse chaparral vegetation, annual herblands, and oak woodlands. (Photo from Google Earth 2022.)





Above: Aerial imagery of north-facing slopes along Sulphur Mountain supporting lush oak woodlands. (Photo from Google Earth 2022.)



Coast Live Oak Woodland dominates the top of Sulphur Mountain and some of the slopes as well. (Photos by David Magney.)





Above: Pseudo-panoramic view south of Coast Live Oak Woodland and CoastalSage Scrub vegetation on the western ed of Sulphur Mountain. (Photos by David Magney.)



Left: View south of a canyon on the south slope of Sulphur Mountain showing herblands in the foreground and Coast Live Oak Woodland and Coastal Sage Scrub vegetation beyond. *Right*: View east along Sulphur Mountain Road (west) on ridgetop showing Coast Live Oak Woodland and cliff face habitats. (Photos by David Magney.)

Sulphur Mountain Recommendations

Sulphur Mountain exhibits a rich diversity of native plants. It is nearly all private ranches and rural homes and estates with minimal restrictions on removing the native vegetation except native trees, such as the Coast Live Oak, which requires a permit and mitigation.

TEHACHAPI MOUNTAINS

Tehachapi Mountains bioregion (TehM) ranges from approximately 3,536 feet to 4,855 feet in elevation and is approximately 2,918 acres (1,180 hectares) in size and ranks 52nd in area of the 54 bioregions of the watershed. It is mostly comprised of the south facing foothills and canyons of the southern Tehachapi Mountains, which drains into Gorman Creek. It is part of the Southern Sierra Nevada and Tehachapi geographic subdivisions.

Its geology is composed of plutonic rocks, and its soils are mostly Walong series in the Xerolls suborder.



The climate of the Tehachapi Mountains is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 88°F and the average mean low temperature is 34°F. The average annual precipitation is 15 inches/381 mm.

Almost all of the land in the Tehachapi Mountains is private (Tejon Ranch), consisting of large lots used primarily for ranching. Only one 72-acre parcel is public and is managed by the BLM. Most of the portion of this bioregion within the Utom River watershed was formerly the Mishner Ranch, now owned by the Tejon Ranch Company.

Tehachapi Mountains Bioregion Location

Tehachapi Mountains is the smallest bioregion and is located in the Piru Creek watershed, specifically Gorman Creek. It is bordered by the southern Tehachapi Mountains to the north, the western Mojave Desert to the east, Peace Valley to the south, and Castac Valley to the west. Figure 52, Map of Tehachapi Mountains Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

Tehachapi Mountains Flora

The Tehachapi Mountains bioregion flora contains approximately 191 taxa, all of which are identified to species at the minimum. CNPS did not survey this bioregion due to private landownership restrictions in this bioregion.

No vouchers were collected from Tehachapi Mountains as part of this study, and no plant observations were made. CCH cites 88 vouchers, representing 55 taxa⁸⁵, recorded by others from this bioregion prior to this study.

⁸⁵ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature; however, the DMEC vouchers have not yet been deposited into the UCSB Herbarium, waiting for labels to be written. Total taxa count for each bioregion has been refined to exclude synonyms.




Figure 52. Map of Tehachapi Mountains Bioregion



Table 50, Consolidated Statistics of the Tehachapi Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion. More fieldwork could be done here to gain a better understanding of the flora of this bioregion.

Overall, Tehachapi Mountains is primarily dominated by herblands (wildflower fields that have outstanding displays in most years during the spring) and oak woodlands. This area of Tejon Ranch was the subject of a botanical survey commissioned by the Tejon Ranch Conservancy in 2009 (David Magney Environmental Consulting 2010), which represented one of the only times the Michner Ranch was ever botanized.

Tehachapi Mountains Flora Quick Stats		
CNPS	# Taxa Observed	-
	# Vouchers Collected	-
	# Waypoints	-
ССН	# Taxa Reported ⁸⁴	55
	# Vouchers Collected	88
Total # Taxa Reported for Bioregion		191
Total # Vouchers Collected for Bioregion		88

Table 50. Consolidated Statistics of the Tehachapi Mountains Bioregion Flora

Tehachapi Mountains Special-status Species

Two (2) special-status species are documented in Tehachapi Mountains, including: Androsace elongata ssp. acuta and Monardella linoides ssp. oblonga.

Tehachapi Mountains Habitats

Tehachapi Mountains contains approximately fout of habitat types, composed of woodlands, shrublands, and herblands (wildflower fields).



Left: View west of ridgetop showing herblands, here dominated by the perennial Southern Mountain Lupine, *Lupinus albifrons* var. *austromontanus*. *Right*: View northeastward of herblands on the ridgetop. (Photos by David Magney.)





Above: Aerial imagery of the Tehachapi Mountains bioregion dominated by annual herblands on south-facing slopes. (Photo from Google Earth 2022.)



Left: View northwest of herbland and oak woodland habitats on the ridgetop. *Right*: View south-southeast towards Peace Valley and the San Andreas Fault Zone of herblands that often have fabulous springtime wildflower displays. (Photos by David Magney.)





Left: View southwest of north-facing slope of Blue Oak Woodland and herblands habitats. *Right*: View northward down narrow canyon containing herblands. (Photos by David Magney.)



Left: view southward of ridgetop showing herblands, here dominated by the perennial Southern Mountain Lupine, *Lupinus albifrons* var. *austromontanus*. *Right*: steep south-facing slope above Gorman of herblands (wildflower fields) and open xeric shrubland habitats. (Photos by David Magney.)



Left: View of a Valley Oak, *Quercus lobata*, leafing out in the spring. *Right*: south-facing slopes of herblands and scattered Blue Oak trees, *Quercus douglasii*. (Photos by David Magney.)



Tehachapi Mountains Recommendations

The Michner Ranch portion of the Tejon Ranch representing the watershed portion of the Tehachapi bioregion exhibits a high diversity of native plants. It is mostly composed of steep slope and ridgetops that are managed for livestock grazing and are part of the Tejon Ranch Conservancy management areas of the Tejon Ranch, protecting them from development. The livestock grazing practices by the Tejon Ranch have been a good example of good land stewardship, which should be continued.

TOPATOPA MOUNTAINS

The Topatopa Mountains bioregion (TTM) ranges from approximately 3,575 feet to 6,715 feet in elevation and is approximately 67,261 acres (27,220 hectares) in size and ranks 9th in area of the 54 watershed bioregions. It is mostly comprised of a few named mountains (Topatopa and Hines Peak), high ridges, and named canyons such as the West Fork Sespe Creek. The bioregion mostly drains into either the Sespe Creek or Santa Paula Canyon. It is part of the Western Transverse Ranges.

Its geology is composed mostly of marine sedimentary rocks, including the Matilija, Juncal, Coldwater, Cozy Dell, and Sespe Formations. The bioregion soils are made up of Lodo series in the Xerolls suborder.

The climate of the Topatopa Mountains is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 80-92°F and the average mean low temperature is 34-38°F. The average annual precipitation is 23-31 inches/584.2-787.4 mm.

Almost all of the land in the Topatopa Mountains is public Forest Service land within the Ojai District of the Los Padre National Forest. Roughly 2,581 acres are considered private and are concentrated in the lower elevations of the southwest portion of the bioregion.

Topatopa Mountains Bioregion Location

Topatopa Mountains is a rugged complex of highlands located mostly in the Sespe Creek watershed. It is bordered by Middle Sespe Creek to the north, Lower Sespe Creek to the east, Santa Paula Ridge and Santa Paula Canyon to the south, and Nordhoff Ridge to the west. Figure 53, Map of Topatopa Mountains Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

There are no roads to access the Topatopa Mountains bioregion, only a few trails. Not of the bioregion is entirely inaccessible and unexplored.

Topatopa Mountains Flora

The Topatopa Mountains bioregions flora contains approximately 259 taxa with an additional 5 taxa identified just to genus. CNPS observed a total of 48 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 11 waypoints. An average of 8.1 taxa were observed at each waypoint. Of these 48 taxa observed, 47 (97.9%) are native and 1 (2.1%) is non-native. This ratio of native to non-native plants is significantly higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).





Figure 53. Map of Topatopa Mountains Bioregion



A total of ten (10) vouchers were collected from Topatopa Mountains, by David Magney, as part of this study, with another 79 plant observations. CCH cites 207 vouchers, representing 158 taxa⁸⁶, recorded by others from this bioregion prior to this study. Table 51, Consolidated Statistics of the Topatopa Mountains Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion. More field work could be done here to gain a better understanding of the flora of this bioregion. Most of this bioregion is condor sanctuary making access very limited.

Overall, Topatopa Mountains is primarily dominated by montane chaparral vegetation, dominated by *Arctostaphylos glandulosa*⁸⁷. Bigcone Spruce Forest occurs extensively on the steep north-facing slopes of the east-west-trening mountain range.

Topatopa Mountains Flora Quick Stats		
CNPS	# Taxa Observed	48
	# Vouchers Collected	10
	# Waypoints	11
ССН	# Taxa Reported ⁸⁵	158
	# Vouchers Collected	207
Total # Taxa Reported for Bioregion		259
Total # Vouchers Collected for Bioregion		217

Table 51. Consolidated Statistics of the Topatopa Mountains Bioregion Flora

Topatopa Mountains Special-status Species

Five (5) special-status species were observed or documented in Topatopa Mountains, including: *Acanthoscyphus parishii* var. *abramsii* (Type Locality), *Diplacus johnstonii*, *Fritillaria ojaiensis*, *Lepechinia rossii*, and *Orobanche valida* ssp. *valida*.

Topatopa Mountains Habitats

Topatopa Mountains contains approximately five of habitat types, composed of woodlands, shrublands, herblands, and rock outcrops. Montane Chaparral is the predominant vegetation type in this bioregion, with Bigcone Spruce Forest and riparian woodlands and scrub occurring along the stream courses.

⁸⁶ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. vTotal taxa count for each bioregion has been refined to exclude synonyms.

⁸⁷ The areas dominated by trees and shrubs were not surveyed as thoroughly as the herbland (grassland) areas, due to difficulty of access.





Above: Aerial imagery of high elevation, level plateau known as Bear Heaven with bare substrate providing habitat for many rock outcrop and chaparral species. (Photo from Google Earth 2022.)



Above: Aerial imagery of steep slopes hosting chaparral with woodland communities along drainages. (Photo from Google Earth 2022.)





Iconic Topatopa Bluffs as seen from the north and southwest. (Photos by David Magney.)



Above: Topatopa Mountains ridgetop as looking both east and west from below Hines Peak (Photos by David Magney).



Above: Saddle on north side of Hines Peak that is the Type Locality for the endangered *Acanothoscyphus parishii* var. *abransii* that a CNPS team rediscoverd in 2015 (Photos by David Magney).





Left: View up Red Reef Canyon of the Topatopa Mountains ridgetop as seen from Sespe Creek. *Right*: an odd firefollowing annual sunflower, *Hulsea heterochroma*, found anong the summit trail after the Thomas Fire. (Photos by David Magney.)

Topatopa Mountains Recommendations

Topatopa Mountains exhibit a relatively high diversity of native plants. It is mostly composed of very steep and rugged slopes as well as moderately sloping but inaccessible Sespe Sandstone beds of Bear Heaven on the east side of the bioregion. There are no roads into this bioregion except along the southwestern corner, State Route 150, and a Forest Service trails to other areas. Most of the bioregion is in the Sespe Wilderness and well protected.

UPPER MIDDLE PIRU CREEK

Upper Middle Piru Creek bioregion (Pum) ranges from approximately 2,244 feet to 4,937 feet in elevation and is approximately 17,523 acres (7,091 hectares) in size and ranks 35th in area of the 54 bioregions or the watershed. It is mostly comprised of Piru Creek and its canyons and runs into Pyramid Lake in its eastern portion. It is part of the Western Transverse Ranges.

Its geology is mostly composed of nonmarine (continental) sedimentary rocks. Its soils are a wide mix but are mostly made up of two types, Chino series in the Xerolls suborder and Chaqua series in the Xerepts suborder.

The climate of the Upper Middle Piru Creek is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 91°F and the average mean low temperature is 36°F. The average annual precipitation is 16 inches/406.4 mm.

Most of the land in the Upper Middle Piru Creek is public forest service land in the Los Padres National Forest. The remaining 718 acres is split between privately owned and consisting of small to large lots and small ranches.

Upper Middle Piru Creek Bioregion Location

Upper Middle Piru Creek is located in the Piru Creek watershed. It is bordered by Gold Hill, Hungry Valley, Peace Valley, and Bald Mountain to the north, Ridge Route Ridge to the east, Middle Piru Creek and Alamo Mountain to the south, and Upper Piru Creek to the west. Figure 54, Map of Upper Middle Piru Creek Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.





Figure 54. Map of Upper Middle Piru Creek Bioregion

There is only one road that provides access into this bioregion, Gold Hill Road, with the remainder of the bioregion accessed only by Forest Service trails or hiking up/down the creek canyon.



Upper Middle Piru Creek Flora

The Upper Middle Piru Creek bioregion flora contains approximately 198 taxa with an additional 24 taxa identified just to genus. CNPS observed a total of 142 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 19 waypoints. An average of 21.5 taxa were observed at each waypoint. Of these 142 taxa observed, 126 (88.7%) are native and 16 (11.3%) are non-native. This ratio of native to non-native plants is higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

A total of fifty-two (52) vouchers were collected from Upper Middle Piru Creek, by Jordan Collins, as part of this study, with another 356 plant observations. CCH cites 110 vouchers, representing 80 taxa⁸⁸, recorded by others from this bioregion prior to this study. Table 52, Consolidated Statistics of the Upper Middle Piru Creek Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, Upper Middle Piru Creek is primarily dominated by riparian woodlands, Pinyon-Juniper woodlands, and chaparral.⁸⁹.

Upper Middle Piru Creek Flora Quick Stats		
CNPS	# Taxa Observed	142
	# Vouchers Collected	52
	# Waypoints	19
ССН	# Taxa Reported ⁸⁷	80
	# Vouchers Collected	110
Total # Taxa Reported for Bioregion		198
Total # Vouchers Collected for Bioregion		162

Table 52. Consolidated Statistics of the Upper Middle Piru Creek Bioregion Flora

Upper Middle Piru Creek Special-status Species

Seven (7) special-status species were observed or documented in Upper Middle Piru Creek, including: Acanthomintha obovata ssp. cordata, Allium howellii var. clokeyi, A. parishii, Calochortus clavatus var. gracilis, Opuntia basilaris var. brachyclada, Perideridia pringlei, and Symphotrichum greatae.

Upper Middle Piru Creek Habitats

Upper Middle Piru Creek contains approximately eight (8) habitat types, composed of woodlands, shrublands, herblands, and rock outcrops. The main riparian course of Piru Creek hosts Cottonwood Woodlands and Alder Forests with chaparral vegetation hugging the canyon walls. Level benches above the riparian course host Rabbitbrush Scrub and Pinyon-Juniper

⁸⁸ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.

⁸⁹ The areas dominated by trees and shrubs were not surveyed as thoroughly as the herbland (grassland) areas, due to difficulty of access.



Woodlands. Annual Herblands exist on the east side of this bioregion near Hard Luck Campground.



Left: Rocky riparian course of Piru Creek dominated by Fremont Cottonwood, *Populus fremontii* ssp. *fremontii*, and Broadleaf Cattail, *Typha domingensis*. *Right*: Piru Creek with riparian associates including Torrent Sedge, *Carex nudata*, and White Alder, *Alnus rhombifolia*. (Photos by Jordan Collins.)



Left: Floodplain above Piru Creek dominated by California Wild Buckwheat, *Eriogonum fasciculatum* var. *foliolosum. Right*: Floodplain above Piru Creek dominated by xeric scrub including California Juniper, *Juniperus californica.* (Photos by Jordan Collins.)



Left: Floodplain above Piru Creek dominated by shrubs including California Wild Buckwheat, *Eriogonum fasciculatum* var. *foliolosum*, and Green Mormon Tea, *Ephedra viridis*. *Right*: Sandy banks of Piru Creek with sparse vegetation. (Photos by Jordan Collins.)



Upper Middle Piru Creek Recommendations

The Upper Middle Piru Creek bioregion exhibits a moderate diversity of native plants, primarily a function of it being a narrow canyon. It is mostly composed of very steep canyon slopes. This bioregion, except in the area of the Gold Hill Road crossing, is quite isolated so human impacts to it are minimal.

UPPER PIRU CREEK

Upper Piru Creek bioregion (Pcu) ranges from approximately 3,832 feet to 6,087 feet in elevation and is approximately 34,168 acres (13,827 hectares) in size ranks 19th in area of the 54 watershed bioregions. It is a broad area of ridges and floodplains supporting the upper reach of Piru Creek, which flows generally eastward draining the north slope of Pine Mountain Ridge and the south and eastern slopes of San Guillermo Mountain. It is mostly comprised of uplands, ridges, small canyons, and named creeks which all drain into Piru Creek. It is part of the Western Transverse Ranges.

Its geology is composed of a mix of both marine sedimentary, metamorphic, and granitic igneous rocks. As seen on the right, the bedrock can be a metamorphic gneiss with orthoclase sills and dikes. Other areas of the bioregion have exposed Adamilite Granite. The soils are mostly the Los Gatos series in the Xerolls suborder.

The climate of the Upper Piru Creek is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 85°F and the average mean low temperature is 28-



34°F. The average annual precipitation is 28 inches/711.2 mm.

Most of the land in the Upper Piru Creek is public Forest Service land, with about 887 acres Several Forest Service being private, consisting of large parcels and small ranches. campgrounds are located in this area, including Thorn Meadows and Half Moon Campgrounds.

Upper Piru Creek Bioregion Location

Upper Piru Creek is located in the Piru Creek watershed. It is bordered by Lockwood Valley and Frazier Mountain to the north, Gold Hill and Upper Middle Piru Creek to the east, Alamo Mountain and Pine Mountain Ridge to the south, and San Guillermo Mountain to the northwest. Figure 55, Map of Upper Piru Creek Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

This bioregion is accessible from by one dirt road, Mutau Flat/Thorn Meadows Road from Lockwood Valley Road through the San Guillermo bioregion and OHV and hiking trails.





Figure 55. Map of Upper Piru Creek Bioregion



Upper Piru Creek Flora

The Upper Piru Creek bioregion flora contains approximately 323 taxa with an additional 25 taxa identified just to genus. CNPS observed a total of 301 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 117 waypoints. An average of 13.4 taxa were observed at each waypoint. Of these 301 taxa observed, 286 (95.0%) are native and 15 (5.0%) are non-native. This ratio of native to non-native plants is significantly higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

A total of two hundred two (202) vouchers were collected from Upper Piru Creek, primarly by David Magney and some by Adam Hoeft, as part of this study, with another 1,403 plant observations. CCH cites 257 vouchers, representing 173 taxa⁹⁰, recorded by others from this bioregion prior to this study. Table 53, Consolidated Statistics of the Upper Piru Creek Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, Upper Piru Creek is primarily dominated by *Pinus jeffreyi* and *Artemisia tridentata* on the slopes and flats and Willow Riparian and montane wet meadows along Piru Creek and its major tributaries.

Upper Piru Creek Flora Quick Stats		
CNPS	# Taxa Observed	301
	# Vouchers Collected	202
	# Waypoints	117
ССН	# Taxa Reported ⁸⁹	173
	# Vouchers Collected	257
Total # Taxa Reported for Bioregion		323
Total # Vouchers Collected for Bioregion		459

Table 53. Consolidated Statistics of the Upper Piru Creek Bioregion Flora

Upper Piru Creek Special-status Species

Twelve (12) special-status species were observed or documented in Upper Piru Creek, including: Allium howellii var. clokeyi, Eleocharis parvula, Eriogonum elegans, Eriophyllum confertiflorum var. tanacetiflorum, Frasera neglecta, Gilia interior, Layia heterotricha, Lessingia tenuis, Lonicera subspicata var. subspicata, Monardella linoides ssp. oblonga, Perideridia pringlei, and Symphyotrichum greatae.

Upper Piru Creek Habitats

Upper Piru Creek contains approximately five habitat types, composed of forests, shrublands, herblands, and rock outcrops.

⁹⁰ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.





Above: Aerial imagery of xeric slopes in the western portion of Upper Piru Creek bioregion. Vegetation here is composed of Pinyon-Juniper Woodlands and chaparral vegetation. (Photo from Google Earth 2022.)



Above: Riparian course of Piru Creek with steep canyon walls hosting rock outcrop and chaparral vegation. The riparian course hosts riparian scrub and riparian woodland habitats. (Photo from Google Earth 2022.)





Views of open Yellow Pine Forest dominated by Jeffrey Pine, *Pinus jeffreyi*, and Parry Manzanita, *Arctostaphylos parryana*, and herbland habitat as an understory component. (Photos by David Magney.)



Left: Piru Creek riparian and riverine habitats. *Right: Juncus*- and *Carex*-dominated wet meadow habitat along Piru Creek near Half Moon Campground. (Photos by David Magney.)



Left: typical view of open Yellow Pine Forest habitat in upland areas. *Right*: View upstream (west) of the Piru Creek and floodplain. (Photos by David Magney.)





Left: Montane chaparral and herblands on xeric slope with scattered Jeffrey Pine trees. *Right*: View west of Piru Creek and floodplain with Yellow Pine Forest habitat on adjacent upland areas. (Photos by David Magney.)

Upper Piru Creek Recommendations

Upper Piru Creek exhibits a relatively high diversity of native plants. It is mostly composed of gentle to steep mountain slopes and broad to narrow floodplain of Piru Creek and narrow stream canyons tributary to Piru Creek. The areas dominated by non-native grasses would likely benefit from prescribed grazing, however, it may be hard to separate these areas from the steep forested areas.

UPPER SESPE CREEK

Upper Sespe Creek bioregion (Su) ranges from approximately 3,515 feet to 5,384 feet in elevation and is approximately 11,208 acres (4,535 hectares) in size and ranks 42nd in area of the 54 watershed bioregions. It is mostly comprised of the floodplain and adjacent hill slopes of the upper reach of Sespe Creek, which eventually drains into the Utom River at Fillmore, California. It is part of the Western Transverse Ranges.

Its geology is mostly composed of marine sedimentary rocks, and its soils are a mix of Lodo series of the Xerolls suborder and Aramburu series from the Xeralfs suborder.



The climate of the Upper Sespe Creek is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 89°F and the average mean low temperature is 33°F. The average annual precipitation is 26 inches/660.4 mm. As illustrated in the photo to the left, part of the winter precipitation comes in the form of snow.

Most of the land in the Upper Sespe Creek is public land, consisting of wilderness and Forest Service land within the Ojai Ranger District of the Los Padres National Forest.

About 1,777 acres, or 15%, of the land is private and consists of small to large lots and small to large ranches concentrated along State Route 33.



Upper Sespe Creek Bioregion Location

Upper Sespe Creek is located in the Sespe Creek watershed. It is bordered by Pine Mountain Ridge to the north and east, Middle Sespe Creek to the southeast, Ortega Hill to the south, and Matilija Wilderness to the west. Figure 56, Map of Upper Sespe Creek Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

The Upper Sespe Creek bioregion is accessible from State Route 33, which runs most of its length.

Upper Sespe Creek Flora

The Upper Sespe Creek bioregion flora contains approximately 373 taxa with an additional 4 taxa identified just to genus. CNPS observed a total of 129 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 15 waypoints. An average of 15.3 taxa were observed at each waypoint. Of these 129 taxa observed, 110 (85.3%) are native and 19 (14.7%) are non-native. This ratio of native to non-native plants is higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

A total of thirteen (13) vouchers were collected from Upper Sespe Creek, primarly by David Magney and some by Jonathon Holguin and Adam Hoeft, as part of this study, with another 216 plant observations. CCH cites 845 vouchers, representing 376 taxa⁹¹, recorded by others from



this bioregion prior to this study. Table 54, Consolidated Statistics of the Upper Sespe Creek Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, Upper Sespe Creek is primarily dominated by Cottonwood-Willow Riparian Woodland/Forest and Riparian Scrub along Sespe Creek and chaparral and rock outcrops upslope⁹².

Left: California Wild Rose, *Rosa californica* (Photo by David Magney).

⁹¹ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.

⁹² The areas dominated by trees and shrubs were not surveyed as thoroughly as the herbland (grassland) areas, due to difficulty of access.





Figure 56. Map of Upper Sespe Creek Bioregion



Upper Sespe Creek Flora Quick Stats		
CNPS	# Taxa Observed	129
	# Vouchers Collected	13
	# Waypoints	15
ССН	# Taxa Reported ⁹¹	376
	# Vouchers Collected	845
Total # Taxa Reported for Bioregion		373
Total # Vouchers Collected for Bioregion		858

Table 54. Consolidated Statistics of the Upper Sespe Creek Bioregion Flora

Upper Sespe Creek Special-status Species

Ten (10) special-status species were observed or documented in Upper Sespe Creek, including: Amsinckia douglasiana, Calochortus palmeri var. palmeri, Delphinium parryi ssp. purpureum, Eriophyllum confertiflorum var. tanacetiflorum, Layia heterotricha, Malacothrix phaeocarpa, Pentachaeta fragilis, Perideridia pringlei, Quercus dumosa, and Thermopsis macrophylla.

Upper Sespe Creek Habitats

Upper Sespe Creek contains approximately four habitat types, composed of woodlands, shrublands, and rock outcrops, including Cottonwood-Willow Riparian Woodland, Willow Scrub, and freshwater marsh along Sespe Creek, and Ceanothus and Chamise Chaparral on the slopes, and vertical rock cliff faces supporting a variety of ferns and succulents.



Above: Aerial imagery of the Sespe Gorge showing steep canyon walls with chaparral, coastal scrub, and riparian woodland vegetation. The road highlighted in yellow is Maricopa Highway/State Route 33. (Google Earth 2022.)





Left: Steep shale talus slope above State Route 33. Many annual wildflowers are associated with these talus scree slopes. *Right*: View west at "hogback" sandstone/conglomerate outcrop on north side of bioregion. (Photos by David Magney.)



Left: View northwest of the "hogback" ridge on north side of bioregion just west of Godwin Canyon. *Right*: View westward of canyon and State Route 33 at the Potrero John Canyon bridge. (Photos by David Magney.)



Above: Views up and downstream of Sespe Creek in the autumn near its confluence with Potrero John Canyon (Photos by David Magney).





Above: Sespe Creek with perennial flows near its confluence with Burro Creek, an ephemeral stream draining the south slope of Pine Mountain (Photos by David Magney).



Left: ancient floodplain terrace above creek with Willow Riparian along a tributary stream to Sespe Creek. *Right*: floodplain terrace between SR 33 and Sespe Creek dominated by Matilija Poppy, *Romneya trichocalyx*. (Photos by David Magney.)



Left: Munson Creek floodplain draining the south slope of Pine Mountain, a intermittent stream. *Right*: Gentle slope dominated by California Wild Buckwheat and a suite of wildflowers, including the Sierra Morning-glory, *Calystegia malacophylla* ssp. *pedicellata*, shown in the inset. (Photos by David Magney.)





Above: Cliff-face rock outcrops provide habitat to a suite of hardy perennials, forbs, and ferns such as Our Lord's Candle, *Hesperoyucca whipplei*, Chaparral Bedstraw, *Galium angustifolium* (not detectable here), and ferns such as this Coville's Lip-fern, *Myriopteris covillei*, plus a number of crustose lichens and bryophytes such as *Grimmia*. (Photos by David Magney.)

Upper Sespe Creek Recommendations

Upper Sespe Creek exhibits a moderate species diversity of native plants. It is mostly composed of very steep slopes to more gentle slopes, and a stream bedload of course material. The drive along State Route 33 through this bioregion is very scenic and those recourse, as well as the botanical resources, need to be protected.

VENTURA HILLS

Ventura Hills bioregion (VH) ranges from approximately 87 feet to 1,912 feet in elevation and is approximately 57,420 acres (23,237 hectares) in size and ranks 13th in area of the 54 watershed bioregions. It is mostly comprised of low hills and shallow canyons which drains into either Ventura River to the west or the Utom River to the southeast. It is part of the Western Transverse Ranges.

Its geology is mostly composed of marine sedimentary rocks of Tertiary age (relatively young), and its soils are made up of San Benito series in the Xerolls suborder.

The climate of the Ventura Hills is Mediterranean with cool wet winters and warm dry summers. The average mean high temperature is 83°F and the average mean low temperature is 47°F, as a result of its close proximity to the Pacific Ocean. The average annual precipitation is 19-25 inches/482.6-635 mm.

Almost all of the land in the Ventura Hills is private, consisting of small to large lots and small ranches. Roughly 3,307 acres, or 5.75% of the land is public, with the majority of that being the Harmon Canyon Preserve from the Ventura Land Trust. The rest is in small parcels managed by the BLM.



Ventura Hills Bioregion Location

Ventura Hills is located between the Ventura River and Utom River watersheds. It is bordered by Sulphur Mountain to the north, Santa Paula Canyon to the northeast, Santa Clara River Valley and Montalvo to the south, and Cañada de San Miguelito to the west. It is is an east-westtrending series of incised hills that extend from Ventura on the west to Santa Paula on the east, with all the south-facing slopes draining into the Utom River. Figure 57, Map of the Ventura Hills Bioregion, illustrates the location, geography, and topography of this relatively small bioregion.

It is accessed via public roads from the south, such as Aliso Canyon Road and Wheeler Canyon Road. Otherwise, most of the habitat of the Ventura Hills is closed to access by the public because the land is private property.

Ventura Hills Flora

The Ventura Hills bioregion flora contains approximately 152 taxa with an additional 5 taxa identified just to genus. CNPS observed a total of 79 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 11 waypoints. An average of 9.7 taxa were observed at each waypoint. Of these 79 taxa observed, 55 (69.6%) are native and 24 (30.4%) are non-native. This ratio of native to non-native plants is slightly lower than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

A total of nineteen (19) vouchers were collected from Ventura Hills, primarly by David Magney and some by Jonathon Holguin and Adam Hoeft, as part of this study, with another 106 plant observations. CCH cites 196 vouchers, representing 139 taxa⁹³, recorded by others from this bioregion prior to this study. Table 55, Consolidated Statistics of the Ventura Hills Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion. More field work could be done here to gain a better understanding of the flora of this bioregion.

Overall, Ventura Hills is primarily dominated by Coastal Sage Scrub and herbland habitats, most of which has been grazed to varying intensities over the past 300 years.

Ventura Hills Flora Quick Stats		
CNPS	# Taxa Observed	79
	# Vouchers Collected	19
	# Waypoints	11
ССН	# Taxa Reported ⁹³	139
	# Vouchers Collected	196
Total # Taxa Reported for Bioregion		152
Total # Vouchers Collected for Bioregion		215

Table 55. Consolidated Statistics of the Ventura Hills Bioregion Flora

⁹³ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.





Figure 57. Map of Ventura Hills Bioregion



Ventura Hills Special-status Species

Ten (10) special-status species were observed or documented in Ventura Hills, including: Baccharis plummerae ssp. plummerae, Calochortus catalinae, Cercocarpus betuloides var. blancheae, Erigeron sanctarum, Hesperocyparis macrocarpa, Juglans californica, Lasthenia glabrata ssp. coulteri, Pinus radiata, Rhinotropis cornuta var. fishiae, and Romneya coulteri.

Ventura Hills Habitats

Ventura Hills contains approximately four basic habitat types: woodlands, shrublands, and herblands. Coastal Sage Scrub and herbland alliances are predominant in the Ventura Hills bioregion, with small areas of Coast Live Oak Woodland in the canyon bottoms with Willow Riparian Scrub along the canyon bottoms.



Above: Aerial imagery of Ventura Hills showcasing oak woodland habitat. (Photo from Google Earth 2022.)



Left: view northwest towards Sulphur Mountain from Fagan Canyon in the far eastern end of the Ventura Hills. *Right*: swales and slopes of Fagan Canyon with herblands and Coastal Sage Scrub on the slopes. (Photos by David Magney.)





Views up Kalorama Barraca just upslope from old town San Buenaventura. The western part of the Ventura Hills as represented here is a mixture of Coastal Sage Scrub and herblands. This photo was taken in May 2018, the year after the Thomas Fire with a rich assemblage of fire-following wildflowers and a very dense population of Catalina Mariposa Lily, *Calochortus catalinae* and Fleshy Lupine, *Lupinus succulentus*, as well as the invasive exotic Black Mustard, *Brassica nigra*. (Photos by David Magney).







Above: Aerial imagery showing loose, bare substrate in Ventura Hills with sparse chaparral and coastal scrub vegetation. (Photo from Google Earth 2022.)

Ventura Hills Recommendations

Ventura Hills exhibits a moderately low diversity of native plants. It is mostly composed of gentle to steep slopes that are susceptible to erosion due to the young age of the geology. The areas dominated by non-native grasses would likely benefit from prescribed grazing that benefits native perennial grasses and forbs. Some ranchers of the Ventura Hills are moving in that direction.

WARM SPRINGS MOUNTAIN

Warm Springs Mountain bioregion (WSM) ranges from approximately 1,750 feet to 4,020 feet in elevation and is approximately 17,295 acres (6,999 hectares) in size and ranks 36th in area of the 54 bioregions of the watershed. It is mostly comprised of Warm Springs Mountain as well as Necktie and Elderberry Canyons which drain into Castaic Lake. It is part of the Western Transverse Ranges.

Its geology is mostly composed of marine sedimentary rocks, and its soils are a mix of Chaqua from the Xerepts suborder and Baywood from the Xerolls suborder.

The climate of the Warm Springs Mountain is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 89°F and the average mean low temperature is 40°F. The average annual precipitation is 17-25 inches/431.8-635 mm.

Most of the land in the Warm Springs Mountain is public, consisting of forest service land from the Angeles National Forest. Only 23 acres are considered private and is unknown.



Warm Springs Mountain Bioregion Location

Warm Springs Mountain is located in the Castaic Creek watershed. It is bordered by Redrock Mountain and Sawmill Mountain to the north, Red Mountain to the east, Castaic Valley to the southeast, southwest, and the west. Figure 58, Map of Warm Springs Mountain Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

Warm Springs Mountain Flora

The Warm Springs Mountain bioregion flora contains approximately 293 taxa with an additional 46 taxa identified just to genus. CNPS observed a total of 307 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 35 waypoints. An average of 32.7 taxa were observed at each waypoint. Of these 307 taxa, 271 (88.3%) are native and 36 (11.7%) are non-native. This ratio of native to non-native plants is higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

A total of one hundred seventy-three (173) vouchers were collected from Warm Springs Mountain, primarly by Jordan Collins and some by David Magney and Jonathon Holguin, as part of this study, with another 972 plant observations. CCH cites 138 vouchers, representing 92 taxa⁹⁴, recorded by others from this bioregion prior to this study. Table 56, Consolidated Statistics of the Warm Springs Mountain Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, Warm Springs Mountain is primarily dominated by chaparral, coastal scrub, and annual herblands⁹⁵.

Warm Springs Mountain Flora Quick Stats		
CNPS	# Taxa Observed	307
	# Vouchers Collected	173
	# Waypoints	35
ССН	# Taxa Reported ⁹⁵	92
	# Vouchers Collected	138
Total # Taxa Reported for Bioregion		293
Total # Vouchers Collected for Bioregion		311

⁹⁴ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.

⁹⁵ The areas dominated by trees and shrubs were not surveyed as thoroughly as the herbland (grassland) areas, due to difficulty of access.





Figure 58. Map of Warm Springs Mountain Bioregion



Warm Springs Mountain Special-status Species

Seven (7) special-status species were observed or documented in Warm Springs Mountain, including: *Calochortus clavatus* var. *clavatus*, *Calystegia peirsonii*, *Chorizanthe breweri* (not seen during CNPS surveys, based on one collection from Steve Boyd [1994]), Hesperocyparis forbesii (likely planted a long time ago, now naturalized), *Juncus acutus* ssp. *leopoldii*, *Lilium humboldtii* ssp. *ocellatum*, and *Symphyotrichum greatae*.

Warm Springs Mountain Habitats

Warm Springs Mountain contains approximately ten (10) habitat types, composed of woodlands, shrublands, herblands, and rock outcrops. Most slopes on the east side of Warm Springs Mountain are dominated by Chamise Chaparral, whereas the west side is mostly Coastal Scrub dominated by *Salvia leucophylla* and *Artemisia californica*. Riparian habitats include Sycamore Woodlands and Cottonwood Woodlands in Necktie and Elderberry Canyons. The north flank of Warm Springs Mountain has Scrub Oak Chaparral and Bigcone-Spruce Forests. In level areas on the north side of Warm Springs Mountain, there are Annual Herblands, Coast Live Oak Woodlands, and Yerba Mansa Meadows.



Left: View of Castaic Lake near the summit of Warm Springs Mountain highlighting a Chamise, *Adenostoma fasciculatum* var. *fasciculatum*, chaparral slope. *Right*: Herbland habitat in lower elevations around Warm Springs Mountain dominated by nonnative Slender Wild Oats, *Avena barbata*. (Photos by Jordan Collins.)



Left: Yerba Mansa, *Anemopsis californica*, meadow near Cienaga Campground on the north side of Warm Springs Mountain. *Right*: Trailside spring providing moist habitat for Stream Orchid, *Epipactis gigantea*, and the rare Greata's Aster, *Symphyotrichum greatae* (CRPR 1B.3). (Photos by Jordan Collins.)





Left: Lone Bigcone-Spruce, *Pseudotsuga macrocarpa*, on the northern flank of Warm Springs Mountain. *Right*: Xeric landscape at Necktie Basin with sparse vegetation. (Photos by Jordan Collins.)



Left: Mouth of Elderberry Canyon with coastal scrub dominated by California Sagebrush, *Artemisia californica*, and Black Sage, *Salvia mellifera*, along slopes. *Right*: Mouth of Elderberry Canyon with riparian vegetation dominated by Western Sycamore, *Platanus racemosa* var. *racemosa*, and Mulefat, *Baccharis salicifolia* ssp. *salicifolia*. (Photos by Jordan Collins.)

Warm Springs Mountain Recommendations

Warm Springs Mountain exhibits a moderate diversity of native plants. It is mostly composed of steep slopes that may be susceptible to erosion. Although Warm Springs Mountain is accessible to hikers, all roads to this bioregion are closed for public OHV use. The roads here should remain closed for OHV use, as OHV use could negatively impact sensitive species as well as contribute to erosion within the bioregion.

WHITAKER PEAK

Whitaker Peak bioregion (WP) ranges from approximately 1,202 feet to 4,124 feet in elevation and is approximately 49,877 acres (20,185 hectares) in size and ranks 14th in area of the 54 watershed bioregions. It is mostly comprised of numerous named canyons, Interstate 5, and a



few prominent peaks such as Whitaker and Townsend Peaks. The bioregion is evenly split between near its center, with its eastern portion draining into Castaic Creek and its western portions draining into Piru Creek. It is part of the Western Transverse Ranges.

Its geology is mostly composed of marine sedimentary rocks and granitic igneous rock. The soils are complex but are mostly Chaqua of the Xerepts suborder and Lodo of the Xeroll suborder.

The climate of the Whitaker Peak is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 88-92°F and the average mean low temperature is 38-42°F. The average annual precipitation is 20 inches/508 mm.

Roughly 33,582 acres of the lands in the Whitaker Peak bioregion is public land, consisting mostly of forest service land from both the Angeles National Forest in the eastern portion and Los Padres National Forest in the western portions. Most of the privately owned land, 16,294 acres, is concentrated in the lower elevations in the southeastern third and consists of small to large lots and small to large ranches, as well as land around Interstate 5.

Whitaker Peak Bioregion Location

Whitaker Peak is located between the Piru Creek and Castaic Creek watersheds. It is bordered by Ridge Route Ridge to the north, Castaic Valley to the east, Santa Clara River Valley to the south, and Middle Piru Creek along all western portions. Figure 59, Map of Whitaker Peak Bioregion, illustrates the geography and topography of this bioregion and where plant observations and voucher specimens were collected.

The Whitaker Peak bioregion is accessible from old highway 99 parallel and west of I-5.

Whitaker Peak Flora

The Whitaker Peak bioregion flora contains approximately 180 taxa with an additional 25 taxa identified just to genus. CNPS observed a total of 199 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 38 waypoints. An average of 14.8 taxa were observed at each waypoint. Of these 199 taxa observed, 170 (85.4%) are native and 29 (14.6%) are non-native. This ratio of native to non-native plants is higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

A total of fourty-eight (48) vouchers were collected from Whitaker Peak, primarly by David Magney and some by Jordan Collins, as part of this study, with another 514 plant observations. CCH cites 306 vouchers, representing 181 taxa⁹⁶, recorded by others from this bioregion prior to this study. Table 57, Consolidated Statistics of the Whitaker Peak Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

⁹⁶ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.








Overall, Whitaker Peak is primarily dominated by Coastal Sage Scrub and Chamise Chaparral communities⁹⁷.

Whitaker Peak Flora Quick Stats					
CNPS	# Taxa Observed	199			
	# Vouchers Collected	48			
	# Waypoints	38			
0.011	# Taxa Reported ⁹⁷	181			
ССН	# Vouchers Collected	306			
Total # Taxa	Reported for Bioregion	180			
Total # Vouche	rs Collected for Bioregion	354			

Fable 57.	Consolidated	Statistics	of the	Whitaker	Peak	Bioregion	Flora
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Whitaker Peak Special-status Species

Nine (9) special-status species were observed or documented in Whitaker Peak, including: *Calochortus clavatus* var. *clavatus*, *C. clavatus* var. *gracilis, Calystegia peirsonii, Chorizanthe parryi* var. *parryi*, *Deinandra minthornii, Deinandra paniculata, Eriophyllum confertiflorum* var. *tanacetiflorum, Hemizonia congesta* ssp. *congesta*, and *Juncus acutus* ssp. *leopoldii*.

Whitaker Peak Habitats

Whitaker Peak contains approximately five habitat types, composed of woodlands, shrublands, herblands, and rock outcrops.



Left: Blue Oak (*Quercus douglasii*) woodland at Oak Flats Campground. *Right*: Chaparral and coastal scrub hillside codominated by Purple Sage, *Salvia leucophylla*, and Chamise, *Adenostoma fasciculatum* var. *fasciculatum*. (Photos by Jordan Collins.)

⁹⁷ The areas dominated by trees and shrubs were not surveyed as thoroughly as the herbland (grassland) areas, due to difficulty of access.





Left: Chaparral hillside along Golden State Highway with many Thickleaf Yerba Santa, *Eriodictyon crassifolium*, resprouting from Ranch Fire. *Right*: Chaparral hillside with shrubs resprouting and annual forbs occupying areas of sparse vegetation. (Photos by Jordan Collins)



Left: view south on west side of Old Highway 99 of burned chaparral with fire-following annual and perennial herbs growing thick in some areas. The flower of the fire-follower Large-flowered Phacelia, *Phacelia grandiflora*, is shown in the inset. *Right*: view westward up the same burned canyon. (Photos by David Magney.)



Left: View south of open chaparral with Whitaker Peak to the left of the photo. *Right*: view of east-facing slope of Chamise Chaparral and Coastal Sage Scrub with Purple Sage, *Salvia leucophylla*, in full bloom. (Photos by David Magney.)





Above: Views southward in the upper reaches of the Hawthaway Ranch, part of the historic Rancho Temescal, at the southern end of the bioregion. (Photos by David Magney.)

Whitaker Peak Recommendations

Whitaker Peak exhibits a relatively rich diversity of native plants. It is mostly composed of steep slopes that would be highly susceptible to erosion.

WHITEACRE PEAK RIDGE

Whiteacre Peak Ridge bioregion (WPR) ranges from approximately 625 feet to 5,034 feet in elevation and is approximately 91,321 acres (36,957 hectares) in size and ranks 5th in area of the 54 bioregions of the watershed. It is characterized by a north-south trending series of peaks with plateaus on the west and east flanks. It is mostly comprised of mountains and plateaus that drain into either the Sespe Creek on the west and southwest or the Piru Creek and tributaries on the north, east, and southeast. Whiteacre Peak and Hopper Mountain are prominent landforms of this bioregion. It is part of the Western Transverse Ranges.

Its geology is a mix of marine sedimentary and metasedimentary rocks, while the soils are complex and diverse, but mostly composed of Lodo and San Benito series in the Xerolls suborder.

The climate of the Whiteacre Peak Ridge is Mediterranean with cool wet winters and hot dry summers. The average mean high temperature is 84-92°F and the average mean low temperature is 39°F. The average annual precipitation is 19-23 inches/482.6-584.2 mm.

Most of the land in the Whiteacre Peak Ridge is public (USFS, USFWS, United Water), with a significant portion as private holdings as ranches or for oil extraction, consisting of large parcels. Much of this bioregion includes the Hopper Mountain Wildlife Refuge, dedicated to the conservation of the California Condor.

Whiteacre Peak Ridge Bioregion Location

The Whiteacre Peak Ridge bioregion is located north of the Santa Clara River Valley, east of the Lower Sespe Creek, south of Alamo Mountain and Agua Blanca Creek, and west of the Lower



Middle Piru Creek, and Lower Piru Creek bioregions. The City of Fillmore is located to the south, and access to this bioregion is from Goodenough Road out of Fillmore and from Piru Canyon Road. Figure 60, Map of the Whiteacre Peak Ridge Bioregion, illustrates the geography and topography of this large bioregion.

Whiteacre Peak Ridge Flora

The Whiteacre Peak Ridge bioregion flora contains approximately 378 taxa with an additional 9 taxa identified just to genus. CNPS observed a total of 81 vascular plant taxa (including genus only observations, species, subspecies, and varieties) at a total of 6 waypoints. An average of 16 taxa were observed at each waypoint. Of these 81 taxa observed, 66 (81.5%) are native and 15 (18.5%) are non-native. This ratio of native to non-native plants is higher than the rest of California, which has about 75% native and 25% non-native (Baldwin et al. 2012).

A total of twenty-six (26) vouchers were collected from Whiteacre Peak Ridge, primarly by Adam Hoeft and some by Jonathon Holguin, as part of this study, with another 71 plant observations. CCH cites 836 vouchers, representing 403 taxa⁹⁸, recorded by others from this bioregion prior to this study. Table 58, Consolidated Statistics of the Whiteacre Peak Ridge Bioregion Flora, shows a reference list of the number of taxa reported and the number of vouchers collected in this bioregion.

Overall, Whiteacre Peak Ridge is primarily dominated by chaparral and coastal scrub⁹⁹.

Whiteacre Peak Ridge Flora Quick Stats						
CNPS	# Taxa Observed	81				
	# Vouchers Collected	26				
	# Waypoints	6				
CCU	# Taxa Reported ⁹⁹	403				
ССН	# Vouchers Collected	836				
Total # Taxa R	Total # Taxa Reported for Bioregion					
Total # Vouchers	Collected for Bioregion	862				

Table 58. Consolidated Statistics of the Whiteacre Peak Ridge Bioregion Flora

⁹⁸ The number of taxa reported by the Consortium of California Herbaria (CCH) is likely inflated due to synonymy and updated nomenclature. Total taxa count for each bioregion has been refined to exclude synonyms.

⁹⁹ The areas dominated by trees and shrubs were not surveyed as thoroughly as the herbland (grassland) areas, due to difficulty of access.





Figure 60. Map of Whiteacre Peak Ridge Bioregion



Whiteacre Peak Ridge Special-status Species

Sixteen (16) special-status species were observed or documented in Whiteacre Peak Ridge, including: Calochortus clavatus var. clavatus, C. clavatus var. gracilis, C. fimbriatus, C. rustvoldii, Lepechinia rossii, Calystegia peirsonii, Cercocarpus betuloides var. blancheae, Delphinium parryi ssp. purpureum, Dudleya cymose ssp. agourensis, Juglans californica, Lepechinia rossii, Lilium humboldtii ssp. ocellatum, Lupinus elatus, Phacelia hubbyi, Rhinotropis cornuta var. fishiae, and Symphyotrichum greatae.

Whiteacre Peak Ridge Habitats

Whiteacre Peak Ridge contains approximately six habitat types, composed of woodlands, shrublands, herblands, and rock outcrops. Chaparral and Coastal Sage Scrub associations dominate, along with herblands on gentle slopes and riparian habitats in the canyon bottoms along intermittent and perennial streams such as Little Sespe Creek.



Left: View westward from Whiteacre Peak Ridge displaying Chaparral dominated by Chamise, *Adenostoma fasciculatum* var. *fasciculatum*. *Right*: View over Piru Creek exhibiting an Annual Herbland and Chaparral ecotone at eastern edge of bioregion. (Photos by Jonathon Holguin.)



Left: View west of ridge of Sespe Sandstone and Little Sespe Creek. *Right*: View northwest of rugged topography of Little Sespe Creek drainage. This area is under current oil extraction. (Photos by David Magney.)





Left: Trail along Whiteacre Peak Ridge highlighting the rugged topography of the region. *Right*: Chaparral along Whiteacre Peak Ridge codominated by Thickleaf Yerba Santa, *Eriodictyon crassifolium*, and Chamise, *Adenostoma fasciculatum* var. *fasciculatum*. (Photos by Jonathon Holguin.)

Whiteacre Peak Ridge Recommendations

Whiteacre Peak Ridge exhibits a moderate diversity of native plants. It is mostly composed of steep slopes that would be highly susceptible to erosion. Much of this bioregion is within the Sespe Condor Sanctuary and access is highly restricted. Legacy oil exploration and extraction continues in this area on private inholdings. Cessation of oil drilling and extraction will reduce chances of contamination from oil spills.



SECTION 4. RECOMMENDATIONS

This report provides a description of the botanical resources of the Utom River watershed floristic data based on our current knowledge of the watershed. This study shows that the flora of the watershed is both rich and diverse and should be protected to the greatest extent possible. Threats to the watershed flora come in two basic categories, anthropogenic alterations and affects from climate change. Both threats are generally under the control of decisionmakers at various levels.

Local land use decisions, which have direct, indirect, and immediate impact on the flora, are the simplist to modify. General Plan policies of Los Angeles and Ventura Counties, and the cities of Santa Clarita, Fillmore, Santa Paula, Ventura, and Oxnard each have mechinisms to help guide development to minimize adverse impacts to the biological resources; however, most projects that go through the discretionary review process are approved and thousands more that are considered ministerial receive no environmental review.

While the floristic data are extensive, much is still unknown about the flora of the watershed, in particular those groups of plants known as bryophytes and lichens. Surveys and analysis of these floras are warranted.

CNPS will be conducting surveys of the bryophyte flora of the watershed during 2023 and 2024 and will publish a report on its findings.

A similar study needs to be conducted for the lichen flora of the watershed.

Conservationists need to review all development projects and land use management plans to ensure that the botanical resources are protected from unwise projects. At a minimum, impacts to botanical resources need to be considered and either avoides or substantially minimized, and mitigated.



SECTION 5. DISCUSSION

CHALLENGES

There are many challenges when crafting a flora, especially a flora encompassing such a large geographical area. The biggest challenge was time: we never have enough of it. The Utom Watershed was surveyed for a little over four years as a part of this project and there is still an endless number of localities that remain unbotanized. In addition to having time to survey, we often encountered a plant that was at a suboptimal time of year for identification (as in, there were no reproductive structures to confirm a plant's identity). More time would allow us to uncover more botanical mysteries.

Another major challenge was the relation of geographical space to personpower. Although we had eight professional botanists and several more volunteers scouting the watershed, it was most certainly not enough personpower to document the vastness of Utom. More botanists on the ground in tandem with more time would yield more complete data for this flora.

Access to wild spaces is a constant struggle for any field biologist. Almost every parcel of land in California is owned or managed by someone or some entity, so permission for surveys is often required. We are very grateful to the Forest Service for granting access to spaces that required a master key for entry and for providing permits for plant collections. We were fortunate to gain access to some private properties to survey the plants that exist there. However, there are still many parcels of private property that we did not have permission to access and therefore did not survey. Another large area not surveyed by CNPS was the Sespe Condor Sanctuary. This area is difficult to get access to due to the sensitivity of the emperiled California Condor. This is understandable as the California Condor is a valuable and charismatic member of the California fauna. Another factor that influenced what localities were surveyed is the heterogeneity of the terrain. Utom is a very rugged place and some places in the watershed were inaccessible because of this.

Taxonomic discrepancies are a challenge that any field botanist experiences. You just learned the name of one plant and then it changes to something completely different the next year. Changes in taxonomy are inevitable and crucial for a better understanding of any given taxon and their relationships to their cohorts. Because of taxonomic updates and synonymy, the taxa count presented in each bioregion is an approximate number. In the case of some taxa, there is disagreement as to their identity and it's difficult to find a consensus on a name. For this flora, we've attempted to recognize most current taxonomic treatments as well as a few treatments that are yet to be recognized by the Jepson eFlora (an example would be *Aphyllon franciscanum*).

As static as plants may seem, plant populations are constantly shifting over time. Because of this, plant distributions will change in the future and may no longer reflect what we've presented here (especially with the encroachment of urban settlement on our wilds spaces). This flora serves as a snapshot in time of the plants that exist here and now. Any curious botanist is encouraged to continue this work and explore this beautiful watershed; there's so much more to discover. In the words of David Magney: "A flora is never complete!", but we present the current knowledge of the flora and make decisions based on the best available science.



UNANSWERED QUESTIONS

There remain many questions about occurrences of plants that we or others saw or collected by the identification is in question for one reason or another. Each of these questions will be researched as appropriate by CNPS and others based on available time, resources, and priorities. Any questions the reader has, please send them to the authors and/or CNPS and we will endeavor to answer them.

QUESTIONABLE TAXA

Below is a listing of taxa that someone reported, or one of us saw, but were not able to identify at the time, primarily because it was not in bloom or fruit. This serves as reminders to us, or anyone else, to explore the watershed for these and find out just what they are.

Eriastrum sp. nova – A novel species of *Eriastrum* occurs in the watershed and is likely endemic to the watershed. David Gowen discovered this new taxon some time ago and is currently crafting its taxonomic treatment. Gowen believes that *Eriastrum sapphirinum* is the closest relative to this new taxon. The novel species is distinct from *E. sapphirinum* with wider leaf bases and glandular tomentose trichomes. This new species appears to be restricted to the San Francisquito Formation; a triangular geologic feature comprised of marine sediments that extends from Warm Springs Mountain in the east to Bouquet Reservoir in the west. Several specimens of this new taxon were collected to better understand its distribution in the watershed.

Eriogonum reniforme – Reported as present in Gold Hill and Acton Valley bioregions; however, no vouchers were made, and no photographs taken, so, someone needs to go check for the annual buckwheats in the late spring/early summer.

Ericameria nauseosa varieties – Many observations of *E. nauseosa* were made throughout the watershed when they were not in bloom, therefore, they were next to impossible to identify to variety. To obtain a better understanding of the distribution of each variety, they all need to be vouchered and fully identified.

Opuntia species– There is a questionable species of *Opuntia* on the summit of Warm Springs Mountain, in Fish Canyon, and in Castaic Creek. All three localities appear to be the same species. The *Opuntia basilaris* encountered did not readily key to a species in the Jepson Manual and more field surveys should be conducted to uncover their identity. A specimen of this *Opuntia* was collected and will be deposited in the Robert F. Hoover Herbarium at Cal Poly in San Luis Obispo (OBI).

Quercus species – Oaks are a tricky group to identify, even for the experienced botanist. *Quercus dumosa* and *Quercus turbinella* were two species reported in the watershed that are questionable as to their identity and warrant more field surveys. In addition to trying to fit an oak to a species, they are quite promiscuous and readily hybridize, creating hybrid swarms that are also difficult to identify. A notable hybrid swarm exists in Munz Canyon and on the north flank of Grass Mountain in Sawmill Mountain bioregion. The oaks that appear to be hybridizing here are *Quercus garryana* var. *semota* and *Q. berberidifolia*, which we're tentatively calling *Q. Xhowellii*. The plants here are quite peculiar; more field surveys in tandem with genetic work would provide clarity to their parentage and identities.



SECTION 6. ACKNOWLEDGEMENTS

This report was written by David Magney, Jordan Collins, and Adam Hoeft. Current and former CNPS staff members David Magney, Jordan Collins, Adam Hoeft, Jonathon Holguin, Angela Pai, Annie Zell, Kendra Sikes, Elizabeth Kubey, and Seth Kauppinen assisted with field surveys and data entry. CNPS staff member Kaitlyn Green was instrumental in data compilation, technical support, and data analysis. Kristen Nelson proofread this report.

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Mati Waiya of Wishtoyo Foundation provided access to the foundation's Santa Paula property for field surveys and camping. Paolo Perone of the Trust for Public Lands provided access to the Hawthaway Ranch portion of the former Rancho Temascal in Los Angeles County, an area never before surveyed by botanists.

Los Padres National Forest staff were very helpful in providing access and permissions for CNPS to conduct the botanical surveys, including Susan Shaw, Karina Medina Guitierrez, Donna Johnson, Cindy Burkhart, Heidi Guenther, John Smith (Ojai District Ranger), and Tony R. Martinez. Angeles National Forest staff were also helpful in providing access and permissions during the 2022 field surveys, in particular Jamie Uyehara and Janet Nickerman.

Diana Craig and Diane Ikeda aided with obtaining a critical Letter of Authorization from the Region 5 Forester to collect voucher specimens from all national forests in California in support of these botanical investigations.

Finally, this study was supported almost entirely by funding provided by the Utom River Conservation Fund. The level of detail and effort put into this study could not have been accomplished without this funding.



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APPENDIX A. VASCULAR PLANTS OF THE UTOM RIVER WATERSHED

BIOREGION ABBREVIATIONS

Bioregion	Abbreviation	Bioregion	Abbreviation	Bioregion	Abbreviation
Acton Valley	AV	Montalvo	М	Santa Clara River Valley	SCR
Agua Blanca Creek	ABC	Mount Pinos	MP	Santa Paula Canyon	SPC
Alamo Mountain	AM	Nordhoff Ridge	NR	Santa Paula Ridge	SPR.
Bald Mountain	BM	Ortega Hill	OH	Santa Susana Mountains	SSM
Bouquet Canyon	BC	Oxnard Plain	OP	Sawmill Mountain	SawM
Castaic Valley	CV	Parker Mountain	PM	Sierra Pelona	SP
Del Sur Ridge	DSR	Peace Valley	PV	Sierra Pelona Valley	SPV
Dry Lakes Ridge	DLR	Pine Mountain Ridge	PMR	Soledad Canyon	SolC
Frazier Mountain	FM	Pollard Point	рр	Sulphur Mountain	SM
Gold Hill	GH	Portal Ridge	PorR.	Tehachapi Mountains	TehM
Hungry Valley	HV	Red Mountain	RM	Topatopa Mountains	TTM
Liebre Mountain	LM	Redrock Mountain	RRM	Upper Middle Piru Creek	Pum
Lockwood Valley	LV	Ridge Route Ridge	RRR	Upper Piru Creek	Pcu
Lower Middle Piru Creek	Plm	Rose Valley	RV	Upper Sespe Creek	Su
Lower Piru Creek	Pcl	Saddleback Mountain	SadM	Ventura Hills	VH
Lower Sespe Creek	S1	San Francisquito Canyon	SFC	Warm Springs Mountain	WSM
Middle Sespe Creek	Sm	San Gabriel Mountains	SGabM	Whitaker Peak	WP
Mint Canyon	MintC	San Guillermo Mountain	SGM	Whiteacre Peak Ridge	WPR.



NOTES AND DEFINITIONS

Scientific nomenclature follows the Flora of North America Editorial Committee (1993-2018) and The Jepson Manual (Baldwin et al. 2012), Hasenstab-Lehman & Simpson (2012 for *Cryptantha*), Burge & Zhukovsky (2013 for *Ceanothus vestitus* complex), Schneider (2016 for *Aphyllon*), Colwell et al. (2017 for *Aphyllon*), and Broich (1987 for *Lathyrus vestitus*).

Most current taxomomy is followed when changes have occurred since publication of the above listed references. Common names follow Abrams and Ferris (1960), Neihaus and Ripper (1976), and DeGarmo (1980).

An "*" indicates non-native taxa that have become naturalized or persist without cultivation.

A "?" indicates taxa that are expected to occur in the County but have not been seen.

Bold typeface indicates special-status species.

Habit definitions:

AF = annual fern or fern ally	PG = perennial grass or graminoid
AG = annual grass or graminoid	PH = perennial herb
AH = annual herb	PV = perennial vine
AV = annual vine	S = shrub
BH = biennial herb	T = tree
PF = perennial fern or fern ally	V = vine

Wetland indicator status (Lichvar et al. 2016):

OBL = obligate wetland species, occurs almost always in wetlands (>99% probability)

FACW = facultative wetland species, usually found in wetlands (67-99% probability).

FAC = facultative species, equally likely to occur in wetlands or nonwetlands (34-67% probability).

FACU = facultative upland species, usually occur in nonwetlands (67-99% probability).

UPL = obligate upland species, occurs almost always in nonwetlands (>99% probability)

A period "." indicates that no wetland indicator status has been given in Lichvar et al. (2016).

Parentheses around an indicator status indicates the wetland status as suggested by David L. Magney.



Abundance status definitions:

- R = Rare (1-5 extant populations known)
- U = Uncommon (6-10 extant populations known)
- S = Scattered (11-20 extant populations known)
- O = Occasional (21-30 extant populations known)
- C = Common (>30 extant populations known)
- X = Expected but not yet found
- T = Type Locality

California Rare Plant Rank (CRPR):

1A = CNPS 1A, presumed extirpated or extinct

1B.x = CNPS 1B, rare or endangered in California and elsewhere

2A = CNPS 2A, extirpated in California but common elsewhere

2B.x = CNPS 2B, rare or endangered in California but common elsewhere

3.x = CNPS 3, plants needing review

4.x = CNPS 4, plants of limited distribution, a watch list



VASCULAR PLANTS CHECKLIST

This checklist was developed by David L. Magney and Jordan R.P. Collins in 2023. This checklist may be used for educational and nonprofit purposes only.

Numbers presented in the "Number of Records" column are based on voucher specimens at one or more California public herbaria and direct observations by the authors and CNPS staff.

Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Abies lowiana (Gordon & Glendinning) A. Murray bis	California White Fir	Т		Pinaceae	S	45
Abronia maritima Nutt. ex S. Watson	Red or Sticky Sand- verbena, Beach Pancake	PH		Nyctaginaceae	S, 4.2	11
Abronia maritima Nutt. ex S. Watson X A. umbellata Lam.	Hybrid Sand-verbena	AH		Nyctaginaceae	R	1
Abronia pogonantha Heimerl	Desert Sand-verbena	AH		Nyctaginaceae	R	3
Abronia turbinata Torr. ex S. Watson	Turbinate Sand- verbena	A/PH		Nyctaginaceae	R	3
Abronia umbellata Lam. ssp. umbellata	Beach Sand-verbena	PH		Nyctaginaceae	U	9
Abutilon theophrasti Medikus *	Velvet Leaf	AH	UPL	Malvaceae	R	1
Acacia baileyana F. Muell. *	Cootamundra Wattle	S/T		Fabaceae	R	1
Acacia cyclops G. Don *	Western Coastal Wattle	S		Fabaceae	R	3
Acacia longifolia (Andrews) Willd. *	Golden Wattle	S/T		Fabaceae	R	2
Acacia redolens Maslin *	Vanilla Scented Wattle	S		Fabaceae	R	1
Acanthomintha lanceolata Curran	Lanceleaf Thornmint	AH		Lamiaceae	R, 4.2	1
Acanthomintha obovata var. cordata Jokerst	Heartleaf Thornmint	AH		Lamiaceae	S, 1B.2	12
<i>Acanthoscyphus parishii</i> var. <i>abramsii</i> (E.A. McGregor) Reveal	Abrams Oxytheca	AH		Polygonaceae	R, 1B.2	9



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Acanthoscyphus parishii (Parry) Small var. parishii	Parish Oxytheca	AH	-	Polygonaceae	R, 4.2	8
Acer macrophyllum Pursh var. macrophyllum	Bigleaf Maple	Т	FAC	Sapindaceae	0	36
Acer negundo var. californicum (Torrey & A. Gray) Sarg.	Box Elder	Т	FACW	Sapindaceae	R	2
<i>Achillea millefolium</i> var. <i>californica</i> (Pollard) Jepson	California White Yarrow	PH	FACU	Asteraceae	R	3
Achillea millefolium L. var. millefolium	White Yarrow	PH	FACU	Asteraceae	S	49
Achillea millefolium var. occidentale DC.	Woolly White Yarrow	РН	FACU	Asteraceae	U	8
Achillea millefolium var. pacifica (Rydb.) G.N. Jones	Pacific White Yarrow	РН	FACU	Asteraceae	R	2
Achyrachaena mollis Schauer	Blow-Wives	AH	FAC	Asteraceae	S	17
Acmispon americanus (Nuttall) Rydb. var. americanus	Spanish Clover, American Birds-foot Trefoil	AH	UPL	Fabaceae	S	43
Acmispon argophyllus (A. Gray) Brouillet var. argophyllus	Silver Deervetch, Silky Lotus	РН		Fabaceae	S	16
Acmispon brachycarpus (Bentham) D.D. Sokoloff	Hill Lotus, Short- podded Hosackia	AH		Fabaceae	С	41
Acmispon denticulatus (Drew) D.D. Sokoloff	White Lotus	AH		Fabaceae	U	7
Acmispon glaber var. brevialatus (Ottley) Brouillet	Short Deerweed	PH		Fabaceae	R	1
Acmispon glaber (Vogel) Brouillet var. glaber	Deerweed, California Broom	PH		Fabaceae	С	200
Acmispon grandiflorus (Bentham) Brouillet var. grandiflorus	Large-flowered Lotus or Hosackia	РН		Fabaceae	С	36
Acmispon heermannii (Durand & Hilg.) Brouillet var. heermannii	Heermann Lotus or Hosackia	РН		Fabaceae	U	13
Acmispon heermannii var. orbicularis (A. Gray) Brouillet	Roundleaf Heermann Lotus or Hosackia	РН		Fabaceae	R	2



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Acmispon junceus (Bentham) Brouillet var. junceus	Rush Hosackia	AH		Fabaceae	R	2
Acmispon maritimus (Nuttall) D.D. Sokoloff var. maritimus	Coastal Lotus or Hosackia	AH		Fabaceae	С	54
Acmispon maritimus var. brevivexillus (Ottley) Brouillet	Coastal Lotus	AH		Fabaceae	R	6
Acmispon micranthus (Torrey & A. Gray) Brouillet	Grab Hosackia or Lotus	AH		Fabaceae	U	10
Acmispon nevadensis (S. Watson) Brouillet var. nevadensis	Sierra Nevada Hosackia	РН		Fabaceae	R	12
<i>Acmispon nevadensis</i> var. <i>davidsonii</i> (E. Greene) Brouillet	Suphur-flowered Hosackia	РН		Fabaceae	U	9
Acmispon parviflorus (Bentham) D.D. Sokoloff	Tiny Lotus	AH		Fabaceae	R	3
Acmispon procumbens (E. Greene) Brouillet var. procumbens	Silky California Broom	РН		Fabaceae	О	36
<i>Acmispon prostratus</i> (Torrey & A. Gray) Brouillet	Nuttall's Lotus, Wire Bird's-foot Trefoil	AH		Fabaceae	R, 1B.1	1
Acmispon strigosus (Nuttall) Brouillet var. strigosus	Strigose Lotus or Hosackia	AH		Fabaceae	С	75
Acmispon wrangelianus (Fischer & C. Meyer) D.D. Sokoloff	Chile Lotus or Hosackia	AH		Fabaceae	С	42
Acourtia microcephala DC.	Sacapellote	PH		Asteraceae	С	46
Acroptilon [Centaurea] repens (L.) DC. *	Russian Knapweed	AH		Asteraceae	S	12
Adenostoma fasciculatum Hook. & Arn. var. fasciculatum	Chamise	S		Rosaceae	С	231
Adiantum capillus-veneris L.	Southern Maidenhair, Venushair Fern	PF	FACW	Pteridaceae	U	17
Adiantum jordanii Müller Halle	California Maidenhair	PF	FAC	Pteridaceae	S	22
Aeonium arboreum (L.) Webb & Berthel. var. arboreum *	Tree Aeonium	S		Crassulaceae	R	1



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Aesculus californica (Spach) Nutt.	California Buckeye	S/T		Sapindaceae	U	12
Agave americana L. *	Century Plant	S	UPL	Agavaceae	R	2
Ageratina adenophora (Spreng.) R.M. King & H. Rob. *	Sticky Snakeroot	РН	FACU	Asteraceae	R	3
Agonis flexuosa *	Peppermint Tree, Willow Myrtle	Т	-	Myrtaceae	R	3
Agoseris elata (Nuttall) E. Greene	Tall Mountain Dandelion	PH	FAC	Asteraceae	R	1
Agoseris grandiflora (Nutt.) Greene var. grandiflora	Bigflower [Mountain] Dandelion	РН		Asteraceae	S	19
Agoseris grandiflora (Nutt.) Greene var. leptophylla	Giant Mountain Dandelion	PH		Asteraceae	R	1
Agoseris heterophylla var. cryptopleura Greene	Mountain Dandelion	AH		Asteraceae	U	7
Agoseris heterophylla (Nutt.) Greene var. heterophylla	Mountain Dandelion	AH		Asteraceae	S	14
Agoseris retrorsa (Bentham) E. Greene	Spear-leaved or Retrorse Mountain Dandelion	РН		Asteraceae	С	56
Agropyron cristatum ssp. pectinatum (M. Bieb.) Tzvelev *	Crested Wheatgrass	PG		Poaceae	R	1
Agrostis capillaris L. *	Colonial Bentgrass	PG	FAC	Poaceae	R	1
Agrostis exarata Trin.	Western or Spike Bentgrass	PG	FACW	Poaceae	S	17
Agrostis gigantea Roth *	Redtop	PG	FACW	Poaceae	R	3
Agrostis hallii Vasey	Hall's Bentgrass	PG		Poaceae	R	1
Agrostis pallens Trin.	Thingrass	PG	FACU	Poaceae	R	3
Agrostis stolonifera L. [var. palustris (Hudson) Pers.] *	Creeping Bentgrass	PG	FACW	Poaceae	R	5



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Ailanthus altissima (Miller) Swingle *	Tree-of-Heaven	Т	FACU	Hippocastinaceae	R	8
Aira caryophyllea L. *	Silver Hairgrass	AG	FACU	Poaceae	R	2
Ajuga reptans L.*	Common Bugle	PH		Lamiaceae	R	1
Alcea rosea L. *	Hollyhock	BH	-	Malvaceae	R	1
Allium amplectens Torrey	Narrowleaf Onion	PG	-	Alliaceae	R	1
Allium bisceptrum S. Watson	Twincrest Onion	PG		Alliaceae	R	1
Allium burlewii A. Davidson	Burlew Onion	PG		Alliaceae	S	11
Allium campanulatum S. Watson	Sierra Onion	PG		Alliaceae	U	10
Allium cratericola Eastw.	Cratered Onion	PG		Alliaceae	R	5
Allium denticulatum (Traub) D. McNeal	Dentate Fringed Onion	PG		Alliaceae	R	1
Allium diabloese (Traub) D. McNeal	Diablo Onion	PG		Alliaceae	S	11
Allium fimbriatum S. Watson var. fimbriatum	Fringed Onion	PG	-	Alliaceae	С	33
Allium fimbriatum var. mohavense Jepson	Mojave Onion	PG		Alliaceae	R	4
Allium haemaetochiton S. Watson	Red-skinned Onion	PG	-	Alliaceae	U	9
Allium howellii var. clokeyi Traub	Mount Pinos Onion	PG		Alliaceae	S, 1B.3	21
Allium howellii var. howellii	Howell's Onion	PG		Alliaceae	R, 4.3	2
Allium lacunosum var. davisiae (M.E. Jones) D. McNeal	Davis Onion	PG		Alliaceae	R	2



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Allium lacunosum S. Watson var. lacunosum	Pitted Onion	PG		Alliaceae	R	3
Allium monticola Davidson	Mountain Onion	PG		Alliaceae	R	3
Allium neapolitanum	Daffodil Garlic	PG	-	Alliaceae	R	2
Allium parryi S. Watson	Parry Fringed Onion	PG		Alliaceae	R	3
Allium peninsulare Lemmon var. peninsulare	Peninsular Onion	PG		Alliaceae	R	3
Allium praecox Brandegee	Early Onion	PG		Alliaceae	R	1
Allium sanbornii Alph. Wood var. sanbornii	Sanborn Onion	PG		Alliaceae	R	1
Allium tribracteatum Torrey	Three-bracted Onion	PG		Alliaceae	R	1
Allium vineale L. ssp. vineale *	Wild Garlic	PG	FACU	Alliaceae	R	5
Allophyllum divaricatum (Nuttall) A.D. Grant & V. Grant	Divaricate Allophyllum	AH		Polemoniaceae	S	16
Allophyllum gilioides (Bentham) A.D. Grant & V. Grant ssp. gilioides	Straggling Gilia	AH	FAC	Polemoniaceae	U	6
Allophyllum gilioides ssp. violaceum (A.A. Heller) Day	Violet Phlox	AH	FAC	Polemoniaceae	S	20
Allophyllum glutinosum (Bentham) A.D. Grant & V. Grant	Sticky Allophyllum	AH		Polemoniaceae	S	19
Allophyllum integrifolium (Brand) A.D. Grant & V. Grant	Sticky Allophyllum	AH		Polemoniaceae	R	3
Alnus incana ssp. tenuifolia (Nuttall) Brietung	Mountain Alder	S	FACW	Betulaceae	R	3
Alnus rhombifolia Nuttall	White Alder	Т	FACW	Betulaceae	С	87
Aloe sp. *	Aloe	PG		Asphodelaceae	R	1



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Alpinia zerumbet *	Shell Ginger	PH	-	Zingiberaceae	R	1
Alternanthera caracasana Kunth *	Alternanthera	PH		Amaranthaceae	R	1
Alyssum alyssoides (L) L. *	Alyssum	PH		Brassicaceae	R	1
Amaranthus albus L. *	Pigweed Amaranth	AH	FACU	Amaranthaceae	S	18
Amaranthus blitoides S. Watson	Prostrate Amaranth	AH	FACU	Amaranthaceae	S	16
Amaranthus californicus (Moq.) S. Watson	California Amaranth	AH	FACW	Amaranthaceae	R	1
Amaranthus deflexus L. *	Low Amaranth	AH		Amaranthaceae	U	10
Amaranthus hybridus L. *	Hybrid Amaranth	AH		Amaranthaceae	R	4
Amaranthus palmeri S. Watson ssp. palmeri	Palmer Amaranth	AH	FACU	Amaranthaceae	R	1
Amaranthus powellii ssp. bouchonii (Thell.) Costea & Carretero	Powell Amaranth	AH		Amaranthaceae	R	2
Amaranthus powellii S. Watson ssp. powellii	Powell Amaranth	AH		Amaranthaceae	R	9
Amaranthus retroflexus L. *	Red-root Amaranth, Rough Pigweed	AH	FACU	Amaranthaceae	R	4
Amblyopappus pusillus Hook. & Arn.	Dwarf or Coast Amblyopappus	AH	FACW	Asteraceae	R	5
Ambrosia acanthicarpa Hooker	Burweed, Annual Bur-sage	AH		Asteraceae	С	75
Ambrosia artemisiifolia L. *	Common Ragweed	AH	FACU	Asteraceae	R	1
Ambrosia chamissonis (Less.) E. Greene	Beach Bur	AH		Asteraceae	R	4
Ambrosia confertiflora DC.	Weak-leaved Burweed or Bur-sage	РН		Asteraceae	R	1



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<i>Ambrosia psilostachya</i> var. <i>californica</i> (Rydb.) Blake	Western Ragweed	BH	FACU	Asteraceae	S	37
Ambrosia salsola (T. & G. ex G.) Strother & B.G. Baldwin var. salsola	Burrobrush	S	(FACU)	Asteraceae	R	4
Amelanchier alnifolia var. pumila (Nuttall) Nelson	Alderleaf Serviceberry	S	FACU	Rosaceae	R	1
Amelanchier pallida E. Greene	Western Serviceberry	S		Rosaceae	R	1
Amelanchier utahensis Koehne	Utah Serviceberry	S	FACU	Rosaceae	S	12
Ammannia coccinea Rottb.	Long-leaved or Purple Ammannia	AH	OBL	Lythraceae	R	1
Ammi visnaga (L.) Lam. *	Bisnaga	AH		Apiaceae	R	1
Ammophila arenaria (L.) Link *	European Beachgrass	PG	FACU	Poaceae	R	5
Amorpha californica Nuttall var. californica	California False Indigo	S	FAC	Fabaceae	С	65
Amsinckia douglasiana A. DC.	Douglas Fiddleneck	AH		Boraginaceae	S, 4.2	14
Amsinckia intermedia Fischer & C. Meyer	Rancher's Fire, Common Fiddleneck	AH		Boraginaceae	С	38
Amsinckia menziesii (Lehm.) Nelson & J.F. Macbr. var. menziesii	Common or Menzeis Fiddleneck	AH		Boraginaceae	С	48
Amsinckia retrorsa Suksd.	Rigid Fiddleneck	AH		Boraginaceae	U	11
Amsinckia tessellata Gray var. gloriosa (Suksd.) Hoover	Glorious Fiddleneck	AH		Boraginaceae	U	13
Amsinckia tessellata Gray var. tessellata	Devil's Lettuce, Tessellate Fiddleneck	AH		Boraginaceae	С	65
Amsinckia vernicosa Hook. & Arn. var. vernicosa	Vernal Fiddleneck	AH		Boraginaceae	R	2
Amsonia tomentosa Torr. & Frem.	Amsonia	PH/S		Apocynaceae	R	1



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Anchusa azurea Mill. *	Garden Alkanet	PH		Boraginaceae	R	1
Ancistrocarphus filagineus Gray	Woolly Fishhooks	AH		Asteraceae	С	35
Andropogon glomeratus var. scabriglumis C.S. Campbell	Southwestern Bushy Bluestem	PG	FACW	Poaceae	R	3
Androsace elongata ssp. acuta (E. Greene) G. Robb.	Rock-jasmine	AH		Primulaceae	S	12
Anemopsis californica Hooker & Arnott var. californica	Yerba Mansa	PH	OBL	Saururaceae	S	25
Anisocoma acaulis Torrey & A. Gray	Scale Bud	AH		Asteraceae	S	19
Antennaria dimorpha (Nuttall) Torrey & A. Gray	Low Everlasting	РН		Asteraceae	R	2
Anthemis cotula L. *	Mayweed, Stinkweed, Dog- fennel	AH	FACU	Asteraceae	U	6
Anthoxanthum occidentale (Buckley) Veldkamp	California Sweet Grass	PG	-	Poaceae	R	1
Anthriscus caucalis M. Bieb. *	Bur-chervil	AH		Apiaceae	R	4
Antirrhinum coulterianum Bentham ssp. coulterianum	White Snapdragon	AH		Plantaginaceae	С	47
Antirrhinum kelloggii Greene	Kellogg Snapdragon	AV		Plantaginaceae	S	13
Antirrhinum nuttallianum ssp. subsessile (A. Gray) D. Thompson	Nuttall Snapdragon	AH		Plantaginaceae	R	1
Antirrhinum thompsonii D.J. Keil [A. multiflorum]	Thompson's Snapdragon	A/PH		Plantaginaceae	С	51
Aphanes occidentalis (Nuttall) Rydb.	Dew-cup, Lady's Mantle	AH		Rosaceae	R	2
Aphyllon californicum (Cham. & Schltdl.) A. Gray subsp. californicum	California Broomrape	PH		Orobanchaceae	R	2
<i>Aphyllon californicum</i> ssp. <i>feudgei</i> (Munz) A.C. Schneid.	California Sagebrush Broom-rape	РН		Orobanchaceae	U	9



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Aphyllon californicum ssp. jepsonii (Munz) A.C. Schneid.	Jepson Sagebrush Broom-rape	PH		Orobanchaceae	R	2
Aphyllon franciscanum (Achey) A.C. Schneid [A. fasciculatum]	Clustered Broom- rape	PH		Orobanchaceae	С	47
Aphyllon parishii (Jeps.) A.C. Schneid. ssp. parishii	Parish Broom-rape	PH		Orobanchaceae	U	9
Aphyllon sp. nova		PH		Orobanchaceae	R	2
Aphyllon tuberosum Beck [Orobanche bulbosa]	Chaparral Broomrape	PH		Orobanchaceae	R	22
Aphyllon uniflorum (L.) Torr. & A. Gray	Naked Broomrape	РН		Orobanchaceae	R	1
Aphyllon validum (Jeps.) A.C. Schneid. ssp. validum	Rock Creek Broom- rape	РН		Orobanchaceae	R, 1B.2	2
Apiastrum angustifolium Nuttall	Wild Celery, Mock Parsley	AH	UPL	Apiaceae	О	26
Apium graveolens L. *	Celery	PH	(FACW)	Apiaceae	S	14
Apocynum androsaemifolium L.	Bitter Dogbane	PH	UPL	Apocynaceae	R	4
Apocynum cannabinum L.	Indian Hemp	PH	FAC	Apocynaceae	О	32
Apocynum Xmedium E. Greene (A. androsaemifolium ssp. a. var. incanum XA. cannabinum var. hypericifolium)	Bitter Dogbane	PH	FAC	Apocynaceae	R	4
Aquilegia eximia Van Houtte ex Planchon	Van Houtte Columbine	PH	OBL	Ranunculaceae	R	4
<i>Aquilegia formosa</i> var. <i>truncata</i> (Fischer & C.A. Meyer) Baker	Truncate Crimson Columbine	РН	FAC	Ranunculaceae	S	21
Aralia californica S. Watson	Elk Clover, Spikenard	РН	FACW	Araliaceae	R	5
Araujia sericofera Brot. *	Bladder-flower	PV		Apocynaceae	R	3
Arbutus menziesii Pursh	Pacific Madrone	Т		Ericaceae	R	3



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Arceuthobium campylopodum Engelm.	Western Dwarf Mistletoe	PH		Viscaceae	S	18
Arctostaphylos glandulosa ssp. cushingiana (Eastw.) Keeley, Vasey & Parker	Cushing's Eastwood Manzanita	S		Ericaceae	U	8
Arctostaphylos glandulosa ssp. gabrielensis (Wells) Keeley, Vasey & Parker	San Gabriel Mountains Manzanita	S		Ericaceae	U	6
Arctostaphylos glandulosa Eastw. ssp. glandulosa	Eastwood Manzanita	S		Ericaceae	S	18
Arctostaphylos glandulosa ssp. mollis (J.E. Jones) P. Wells	Santa Ynez Mountains Manzanita	S		Ericaceae	С	64
Arctostaphylos glandulosa Eastw. X A. glauca Lindley	Eastwood-Bigberry Manzanita Hybrid	S		Ericaceae	R	2
Arctostaphylos glauca Lindley	Bigberry Manzanita	S		Ericaceae	С	102
Arctostaphylos mewukka Merriam ssp. mewukka	Indian Manzanita	S		Ericaceae	R	2
Arctostaphylos parryana Lemmon ssp. parryana	Parry Manzanita	S		Ericaceae	С	59
Arctostaphylos patula Greene	Greenleaf Manzanita	S		Ericaceae	R	3
Arctostaphylos pungens H.B. & K.	Pungent Manzanita	S		Ericaceae	U	9
Arctotis venusta Norlindh *	Blue-eyed African Daisy	AH		Asteraceae	R	1
Argemone corymbosa E. Greene ssp. corymbosa	Desert Prickly Poppy	РН		Papaveraceae	R	3
Argemone munita Durand & Hilgard ssp. munita	Prickly Poppy, Chicalote	AH		Papaveraceae	S	38
Argemone munita ssp. rotundata (Rydberg) G.B. Ownbey	Prickly Poppy, Chicalote	AH		Papaveraceae	R	4
Argentina egedii (Wormsk.) Rydb. ssp. egedii	Pacific Coast Cinquifoil or Silverweed	РН	OBL	Rosaceae	R	2
Aristida adscensionis L.	Six-weeks Three-awn Grass	AG		Poaceae	R	1



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Aristida purpurea Nuttall var. purpurea	Purple Three-awn Grass	PG	-	Poaceae	R	1
Aristida purpurea var. parishii (A.S. Hitch.) Allred	Parish's Threeawn	PG		Poaceae	R	1
<i>Aristida ternipes</i> Cav. var. <i>gentilis</i> (Henrard) Allred	Spidergrass	PG	-	Poaceae	R	1
Arrhenatherum elatius (L.) J. Presl & C. Presl *	Tall Oat Grass	PG	UPL	Poaceae	R	2
Artemisia biennis Willd. var. biennis *	Biennial Wormwood	BH	FACW	Asteraceae	U	8
Artemisia californica Less.	California Sagebrush	S		Asteraceae	С	203
Artemisia douglasiana Besser	Mugwort	РН	FAC	Asteraceae	С	142
Artemisia dracunculus L.	Tarragon, Dragon Tarragon	PH	(FACW)	Asteraceae	С	136
Artemisia ludoviciana ssp. incompta (Nuttall) Keck	White Sagebrush	PH	FACU	Asteraceae	R	3
Artemisia ludoviciana Nuttall ssp. ludoviciana	Silver or Western Mugwort	PH	FACU	Asteraceae	R	3
Artemisia tridentata ssp. parishii (Gray) H.M. Hall & Clements	Parish Great Basin Sagebrush	S		Asteraceae	S	17
Artemisia tridentata Nuttall ssp. tridentata	Great Basin Sagebrush	S		Asteraceae	С	172
Artemisia tridentata ssp. vaseyana (Rydb.) Beetle	Vasey Great Basin or Mountain Sagebrush	S		Asteraceae	U	19
Arthrocnemum [Salicornia] subterminale (Parish) Standley	Common or Parish Glasswort	S	FACW	Chenopodiaceae	R	2
Arundo donax L. *	Giant Reed	PG	FACW	Poaceae	S	13
Asclepias californica E. Greene ssp. californica	California Milkweed	AH		Apocynaceae	0	37
Asclepias eriocarpa Bentham	Kotolo, Indian Milkweed	РН		Apocynaceae	0	29



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Asclepias erosa Torrey	Desert Milkweed	PH		Apocynaceae	U	11
Asclepias fascicularis Decne.	Narrowleaf Milkweed	PH	FAC	Apocynaceae	О	42
Asclepias vestita Hooker & Arnott	Woolly Milkweed	PH		Apocynaceae	R	1
Asparagus asparagoides (L.) W.F. Wight *	Smilax Asparagus	РН		Asparagaceae	R	3
Asparagus officinalis L. ssp. officinalis *	Asparagus	PH	FACU	Asparagaceae	R	1
Asphodelus fistulosus L. *	Asphodel	PG		Asphodelaceae	R	2
Aspidotis californica (Hooker) Nuttall ex Copeland	California Lace Fern	PF		Pteridaceae	U	10
Astragalus brauntonii Parish	Braunton Milkvetch	РН		Fabaceae	R, 1B.1, FE	1
<i>Astragalus didymocarpus</i> Hook. & Arn. var. <i>didymocarpus</i>	Two-seeded Milkvetch	AH		Fabaceae	0	26
Astragalus didymocarpus var. dispermus (A. Gray) Jeps.	Dispersed Two- seeded Milkvetch	AH		Fabaceae	U	7
Astragalus didymocarpus var. obispoensis (Rydb.) Jeps.	San Luis Obispo Two-seeded Milkvetch	AH		Fabaceae	R	3
Astragalus douglasii (T. & G.) Gray var. douglasii	Douglas Milkvetch	PH		Fabaceae	С	50
<i>Astragalus douglasii</i> var. <i>parishii</i> (Gray) M.E. Jones	Parish Milkvetch	PH		Fabaceae	R	4
Astragalus filipes Gray	Thread-leaved Locoweed	PH		Fabaceae	S	11
Astragalus gambelianus E. Sheldon	Dwarf Locoweed	AH		Fabaceae	S	14
Astragalus lentiginosus var. frémontii (A.Gray) S. Watson	Fremont Spotted Locoweed	PH	UPL	Fabaceae	U	9
Astragalus lentiginosus var. idriensis M.E. Jones	Idria Freckled Locoweed	PH	UPL	Fabaceae	S	18



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Astragalus lentiginosus var. nigricalycis M.E. Jones	Black-sepaled Freckled Locoweed	PH	UPL	Fabaceae	R	3
Astragalus lentiginosus var. sierrae M.E. Jones	Bear Valley Milkvetch	PH	UPL	Fabaceae	R, 1B.2	4
Astragalus lentiginosus var. variabilis Barneby	Variable Freckled Locoweed	PH	UPL	Fabaceae	R	1
Astragalus leucolobus M.E. Jones	Bear Valley Woollypod	PH		Fabaceae	R, 1B.2	3
Astragalus macrodon (Hook. & Arn.) A. Gray	Salinas Milkvetch	PH		Fabaceae	R. 4.3	2
Astragalus oxyphysus Gray	Robust Milkvetch	PH		Fabaceae	R	2
Astragalus pachypus E. Greene var. pachypus	Thickpod Milkvetch	PH		Fabaceae	S	12
Astragalus pomonensis M.E. Jones	Pomona Locoweed	PH		Fabaceae	R	3
Astragalus purshii var. tinctus M.E. Jones	Pursh Woollypod	PH		Fabaceae	С	45
Astragalus pycnostachyus var. lanosissimus (Rydb.) Munz	Ventura Marsh Milkvetch	PH	OBL	Fabaceae	R, 1B.1, FE, SE	2
Astragalus trichopodus var. lonchus (M.E. Jones) Barneby	Three-pod Milkvetch	PH		Fabaceae	U	6
Astragalus trichopodus var. phoxus (M.E. Jones) Barneby	Antisell Three-pod Milkvetch	PH		Fabaceae	С	83
Astragalus trichopodus (Nutt.) Gray var. trichopodus	Three-pod Milkvetch	PH		Fabaceae	R	4
Astragalus whitneyi A. Gray var. whitneyi	Whitney Locoweed	PH		Fabaceae	R	3
Athysanus pusillus (Hook.) Greene	Dwarf Athysanus	AH		Brassicaceae	S	15
Atriplex argentea var. expansa (S. Watson) S.L. Welsh & Reveal	Broad Silverscale	AH	FAC	Chenopodiaceae	U	7
Atriplex canescens (Pursh) Nuttall var. canescens	Fourwing or Hoary Saltbush	S	(FACU)	Chenopodiaceae	С	37



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
<i>Atriplex canescens</i> var. <i>laciniata</i> Parish in W.L. Jepson	Caleb Saltbush	S	(FACU)	Chenopodiaceae	R	4
Atriplex coronata S. Watson var. coronata	Crownscale	AH	FACW	Chenopodiaceae	U, 4.2	6
Atriplex dioica Raf.	Spike Salbush	AH		Chenopodiaceae	R	1
Atriplex glauca L. *	Waxy Saltbush	AH		Chenopodiaceae	R	4
Atriplex lentiformis ssp. breweri (S. Watson) H.M. Hall & Clements	Brewer Big Saltbush or Quailbrush	S	FAC	Chenopodiaceae	U	7
Atriplex lentiformis (Torrey) S. Watson ssp. lentiformis	Big Saltbush, Quailbrush	S	FAC	Chenopodiaceae	S	21
Atriplex leucophylla (Moq.) D. Dietr.	Whiteleaf, Beach Saltbush or Seascale	РН	FAC	Chenopodiaceae	U	8
Atriplex micrantha Ledeb. *	Russian Saltbush	AH		Chenopodiaceae	R	12
Atriplex polycarpa (Torrey) S. Watson	Common Saltbush, Allscale	S	FACU	Chenopodiaceae	S	13
Atriplex prostrata Boucher ex de Candolle	Thinleaf Orach	AH	FACW	Chenopodiaceae	S	17
Atriplex rosea L. *	Tumbling or Rose or Red Oracle, Redscale	AH	FACU	Chenopodiaceae	S	11
Atriplex semibaccata R.Br. *	Australian Saltbush	PH	FAC	Chenopodiaceae	S	14
<i>Atriplex serenana</i> var. <i>davidsonii</i> (Standley) Munz	Davidson Bractscale	AH	FAC	Chenopodiaceae	R, 1B.2	4
Atriplex serenana Nelson var. serenana	Bractscale	AH	FAC	Chenopodiaceae	U	9
Atriplex suberecta I. Verd. *	Australian Annual Saltbush	AH	FACU	Chenopodiaceae	U	9
Atriplex vesicaria Heward ex Benth. *	Aboriginal Sagebrush	S		Chenopodiaceae	R	1
Atriplex watsonii Nelson ex Abrams	Matscale	РН	FACW	Chenopodiaceae	R	5



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Avena barbata Link. *	Slender Wild Oat	AG		Poaceae	С	221
Avena fatua L. *	Wild Oat	AG		Poaceae	S	53
Avena sativa L. *	Cultivated Oat	AG	UPL	Poaceae	R	1
Azolla filiculoides Lam.	Duckweed Fern	PF	OBL	Azollaceae	U	7
Azolla microphylla Hook. fil. *	Mexican Mosquito Fern	PF	OBL	Azollaceae	R	3
Baccharis glutinosa Pers.	Marsh Baccharis, Douglas False- willow	S	FACW	Asteraceae	О	26
Baccharis pilularis ssp. consanguinea (DC.) C.G. Wolf	Coyote Brush	S	(FACU)	Asteraceae	С	96
Baccharis pilularis X B. sarothroides	Baccharis Hybrid	S	(FACU)	Asteraceae	R	1
Baccharis plummerae Gray ssp. plummerae	Plummer Baccharis	S		Asteraceae	S, 4.3	13
Baccharis salicifolia (Ruiz Lopez & Pavon) Pers. ssp. salicifolia	Mulefat, Seep- willow, Water-wally	S	FAC	Asteraceae	С	176
Baccharis salicina Torrey & A. Gray	Emory Baccharis	S	FACW	Asteraceae	R	6
Baccharis sarothroides A. Gray	Broom Baccharis	S	FACU	Asteraceae	R	6
Bacopa monnieri (L.) Wettst. *	Water-hyssop	AH	OBL	Plantaginaceae	R	1
Bahiopsis laciniata (A. Gray) E.E. Schill.	San Diego County Viguiera	S		Asteraceae	R	3
Balsamorhiza deltoidea Nuttall	Balsamroot, Chuchupate	РН		Asteraceae	С	36
Barbarea orthoceras Ledeb.	American Wintercress	ВН	FACW	Brassicaceae	О	23
Barbarea verna (Mill.) Asch. *	Early Wintercress	AH		Brassicaceae	R	1



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Barbarea vulgaris W.T. Aiton *	Common Wintercress	BH	FAC	Brassicaceae	R	2
Bassia hyssopifolia (Pallas) Kuntze *	Five-hook, Smother- Weed	AH	FACU	Chenopodiaceae	S	14
Batis maritima L.	Saltwort, Beachwort	S	OBL	Bataceae	R	5
Bebbia juncea var. aspera Greene	Rush Sweetbush	S		Asteraceae	R	1
<i>Berberis aquifolium</i> Pursh var. <i>repens</i> (Lindl.) Scoggan	Creeping Oregon Grape	S		Berberidiaceae	R	1
Berberis dictyota Jeps.	Dull-leaf or Jepson Holly-leaved Barberry	S		Berberidiaceae	R	4
Berberis nevinii A. Gray et al.	Nevin's Barberry	S		Berberidiaceae	R, 1B.1	4
Berberis pinnata Lagasca ssp. pinnata	Pinnate-leaved Barberry	S		Berberidiaceae	R	1
Bergia texana (Hook.) Seud. ex Walp.	Texas Bergia	A/PH	OBL	Elatinaceae	R	2
Berula erecta (Huds.) Coville	Cutleaf Water- parsnip	PH	OBL	Apiaceae	U	9
Beta vulgaris ssp. maritima (L.) Arcangeli *	Common Beet	PH	(FACU)	Chenopodiaceae	R	3
Bidens frondosa L. var. frondosa	Sticktight	AH	FACW	Asteraceae	R	1
Bidens laevis (L.) Britton, Sterns & Pogg.	Bur-marigold	A/PH	OBL	Asteraceae	R	2
Bidens pilosa L. *	Common Beggar- ticks	AH	FAC	Asteraceae	U	7
Bloomeria crocea (Torr.) Coville var. aurea (Kellogg) J.W. Ingram	Common Goldenstars	PG		Themidaceae	R	2
Bloomeria crocea (Torrey) Cov. var. crocea	Goldenstars	PG		Themidaceae	С	48
Bloomeria crocea var. montana (E. Greene) Ingram	Mountain Goldenstars	PG		Themidaceae	S	25



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Boechera arcuata (Nutt.) Windham & Al-Shehbaz	Few-flowered Rock Cress	PH		Brassicaceae	С	38
Boechera breweri (S. Watson) Al-Shehbaz var. breweri	Brewer Rock Cress	PH		Brassicaceae	R	2
<i>Boechera californica</i> (Rollins) Windham & Al-Shehbaz	California Rockcress	PH		Brassicaceae	R	5
Boechera perennans (S. Watson) W.A. Weber	Perennial Rockcress	PH		Brassicaceae	R	1
<i>Boechera pulchra</i> (M.E. Jones ex S. Watson) W.A. Weber	Desert Rock Cress	PH		Brassicaceae	С	50
Boechera retrofracta (Graham) A. Löve & D. Löve	Holboell Rock Cress	PH		Brassicaceae	R	1
Boechera sparsiflora (Nutt.) Dorn	Few-flowered Rock Cress	PH		Brassicaceae	Ο	24
Boechera xylopoda Windam & Al-Shehbaz	Desert Rock Cress	PH		Brassicaceae	R	4
Bolboschoenus maritimus var. paludosus (A. Nelson) T. Koyama	Saltmarsh Bulrush	PG	OBL	Cyperaceae	S	22
Bolboschoenus maritimus (L.) Palla X B. robustus (Pursh) Soják, Čas. Nár.	Hybrid Saltmarsh Bulrush	PG	OBL	Cyperaceae	R	1
Bolboschoenus robustus (Pursh) Soják, Čas. Nár.	Seashore Bulrush	PG	OBL	Cyperaceae	R	3
Bombycilaena californica (Fisch. & C. Meyer) Holub var. californica	Slender Cottonweed	AH	(FACU)	Asteraceae	R	4
Boschniakia [Kopsiopsis] strobilacea Gray	California Ground Cone	PH		Orobanchaceae	R	6
Bothriochloa barbinodis (Lagasca) Herter	Cane Bluestem	PG	UPL	Poaceae	R	3
Botrychium simplex E. Hitchc. var. simplex	Least Moonwort, Little Grapefern	PF	FAC	Ophioglossaceae	R	1
Bowlesia incana Ruiz Lopez & Pavon	Hoary Bowlesia	AH	FACU	Apiaceae	U	13
Boykinia occidentalis T. & G.	Santa Lucia Brookfoam	PH	FAC	Saxifragaceae	R	2



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Boykinia rotundifolia C. Parry	Roundleaved Boykinia	PH	FACW	Saxifragaceae	U	10
Brachychiton populneus (Schott. & Endl.) R. Br. ssp. populneus *	Kurrajong	Т	-	Malvaceae	R	2
Brachypodium distachyon (L.) Beauv. *	Short-pediceled Brome	AG		Poaceae	R	5
Brassica nigra (L.) Koch *	Black Mustard	AH		Brassicaceae	0	46
Brassica rapa L. var. rapa *	Field Mustard	AH	FACU	Brassicaceae	R	1
Brassica tournefortii Gouan *	Mediterranean Mustard	AH		Brassicaceae	U	8
Brickellia californica (T. & G.) Gray	California Brickellbush	S	FACU	Asteraceae	С	141
Brickellia californica (T. & G.) Gray X B. nevinii Gray	California-Nevin Brickellbush Hybrid	S	FACU	Asteraceae	U	9
Brickellia longifolia S. Watson var. multiflora	Long-leaved Brickellbush	S		Asteraceae	R	6
Brickellia nevinii Gray	Nevin Brickellbush	S		Asteraceae	С	49
Brodiaea jolonensis Eastwood	Dwarf Brodiaea	PG		Themidaceae	R	3
<i>Brodiaea terrestris</i> ssp. <i>kernensis</i> (Hoover) Niehaus	Harvest Brodiaea	PG		Themidaceae	R	4
Bromus arenarius Labill. *	Australian Brome	AG	FACU	Poaceae	S	14
Bromus arizonicus (Shear) Stebbins	Arizona Brome	AG		Poaceae	R	2
Bromus berteroanus Colla *	Chilean Chess	PG		Poaceae	U	10
Bromus carinatus Hooker & Arnott var. carinatus [B. sitchensis var. carinatus]	California Brome	PG		Poaceae	С	62
Bromus carinatus var. marginatus (Steud.) Barkworth & Anderton	Mountain Brome	PG		Poaceae	U	10



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Bromus catharticus Vahl *	Rescue Grass	AG		Poaceae	U	10
Bromus ciliatus L.	Fringed Brome	PG	FAC	Poaceae	R	1
Bromus diandrus Roth. ssp. diandrus *	Ripgut Grass	AG	(FACU)	Poaceae	С	238
Bromus grandis (Shear) A. Hitchc.	Tall or Grand Brome	PG		Poaceae	S	12
Bromus hordeaceus ssp. divaricatus (Bonnier & Layens) Kerguelen *	Soft Brome	AG	FACU	Poaceae	R	1
Bromus hordeaceus L. ssp. hordeaceus *	Soft Chess	AG	FACU	Poaceae	С	108
Bromus laevipes Shear	Woodland Brome	PG		Poaceae	U	6
Bromus madritensis L. ssp. madritensis *	Madrid Brome, Foxtail Chess	AG	UPL	Poaceae	S	25
Bromus madritensis ssp. rubens (L.) Husnot [B. rubens]*	Red Brome	AG	UPL	Poaceae	С	312
Bromus orcuttianus (Shear) A. Hitchc.	Orcutt Brome	PG		Poaceae	R	4
Bromus porteri (J.M. Coult.) Nash	Nodding Brome	PG		Poaceae	R	3
Bromus pseudolaevipes Wagnon	Woodland Brome	PG		Poaceae	U	9
Bromus stamineus Desv. *	South American Brome	PG		Poaceae	R	4
Bromus sterilis L. *	Poverty Brome	AG		Poaceae	S	13
Bromus tectorum L. var. tectorum *	Downy Brome, Cheat Grass	AG		Poaceae	С	380
Caesalpinia pulcherrima (L.) Sw.*	Peacock Flower	S		Fabaceae	R	1
Caesalpinia spinosa (Molina) Kuntz *	Tara	S		Fabaceae	R	1


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Cakile maritma Scop. ssp. maritima *	European Searocket	AH	FAC	Brassicaceae	U	6
Calandrinia breweri S. Watson	Brewer Calandrinia	AH		Montiaceae	R, 4.2	2
Calandrinia menziesii (Hook.) Torr.& A. Gray [C. ciliata]	Redmaids	AH	FACU	Montiaceae	О	30
Calendula officinalis L. *	Pot Marigold	AH		Asteraceae	R	1
<i>California macrophylla</i> (H.& A.) Aldas., C. Navarro, P. Vargas, Ll. Saez & Aedo	Largeleaf Filaree	AH		Geraniaceae	U	6
Callitriche heterophylla Pursh var. bolanderi (Hegelm.) Fassett	Bolander's Water Starwort	AH	OBL	Plantaginaceae	R	1
Callitriche marginata Torrey	California Water- starwort, Wallow Starwort	РН	OBL	Plantaginaceae	R	4
Calocedrus decurrens (Torrey) Florin	Incense Cedar	Т		Cupressaceae	S	27
Calochortus albus Bentham	Fairy Lantern, Globe Lily	PG		Liliaceae	U	10
Calochortus catalinae S. Watson	Catalina Mariposa Lily	PG		Liliaceae	O, 4.2	25
Calochortus clavatus S. Watson var. clavatus	Club-haired Mariposa Lily	PG		Liliaceae	C, 4.3	93
Calochortus clavatus var. gracilis Ownby	Slender Club-haired Mariposa Lily	PG		Liliaceae	O, 1B.2	70
Calochortus clavatus var. pallidus (Hoover) Munz	Pale Yellow Mariposa Lily	PG		Liliaceae	U	8
Calochortus coeruleus (Kellogg) S. Watson	Beavertail-grass	PG		Liliaceae	R	1
Calochortus fimbriatus H.P. McDonald	Late-flowering Mariposa Lily	PG		Liliaceae	U, 1B.2	9
Calochortus invenustus E. Greene	Plain Mariposa Lily	PG		Liliaceae	0	25
Calochortus kennedyi Porter var. kennedyi	Red Mariposa Lily	PG		Liliaceae	0	27



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Calochortus luteus Lindley	Gold Nuggets	PG		Liliaceae	R	1
Calochortus palmeri S. Watson var. palmeri	Palmer Mariposa Lily	PG	FACW	Liliaceae	U, 1B.2	18
Calochortus plummerae Greene	Plummer Mariposa Lily	PG	·	Liliaceae	R, 1B.2	3
Calochortus rustvoldii Callahan	Rustvold's Mariposa Lily	PG		Liliaceae	R, 1B.1	2
Calochortus splendens Benth.	Splendid or Lilac Mariposa Lily	PG		Liliaceae	S	20
Calochortus venustus Benth.	Butterfly Mariposa Lily	PG		Liliaceae	С	87
Calycoseris parryi A. Gray	Yellow tackstem	AH		Asteraceae	R	1
Calyptridium monandrum Nuttall	Common Calyptridium, Sand Cress	AH		Montiaceae	С	70
Calyptridium monospermum Greene	One-seeded Pussy Paws	AH		Montiaceae	S	11
Calyptridium parryi Gray var. parryi	Parry Calyptridium	AH		Montiaceae	S	15
<i>Calyptridium</i> sp. nova	new Pussypaws	AH		Montiaceae	R	2
Calyptridium umbellatum (Torrey) Greene	Pussy Paws	AH		Montiaceae	U	9
Calystegia longipes (S. Watson) Brummitt	Morning-glory	PV		Convolvulaceae	S	14
Calystegia macrostegia ssp. arida (Greene) Brummitt	Hairy Coastal Scrub Morning-glory	PV		Convolvulaceae	R	1
Calystegia macrostegia ssp. cyclostegia (House) Brummitt	Coastal Scrub Morning-glory	PV		Convolvulaceae	0	30
<i>Calystegia macrostegia</i> ssp. <i>intermedia</i> (Abrams) Brummitt	Intermediate Coastal Scrub Morning-glory	PV		Convolvulaceae	Ο	33
Calystegia macrostegia (E. Greene) Brummitt ssp. macrostegia	Coastal Scrub Morning-glory	PV		Convolvulaceae	U	8



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Calystegia malacophylla (E. Greene) Munz ssp. malacophylla	Sierra Morning-glory	PV		Convolvulaceae	R	4
Calystegia malacophylla ssp. pedicellata (Jepson) Munz	Sierra Morning-glory	PV		Convolvulaceae	С	66
Calystegia malacophylla ssp. tomentella var. deltoidea (Greene) Munz	Tehachapi Morning- glory	PV		Convolvulaceae	R	1
<i>Calystegia occidentalis</i> ssp. <i>fulrata</i> (Gray) Brummitt	Western Morning- glory	PV		Convolvulaceae	U	9
Calystegia occidentalis ssp. occidentalis var. tomentella (Greene) Brummitt	Woolly Western Morning-glory	PV		Convolvulaceae	R	1
<i>Calystegia occidentalis</i> subsp. <i>fulcrata</i> (A. Gray) Brummitt X <i>Calystegia peirsonii</i> (Abrams) Brummitt	Hybrid Peirson's Morning-glory	PV		Convolvulaceae	U	10
Calystegia peirsonii (Abrams) Brummitt	Peirson's Morning- glory	PV		Convolvulaceae	C, 4.2	173
Calystegia purpurata (Greene) Brummitt ssp. purpurata	Purple Morning- glory	PV		Convolvulaceae	S	12
Calystegia soldanella (L.) R.Br.	Beach Morning-glory	PV		Convolvulaceae	U	7
<i>Camissonia campestris</i> (E. Greene) Raven cf. ssp. <i>campestris</i>	Mojave Sun-cup	AH		Onagraceae	С	73
Camissonia contorta (Douglas) P.H. Raven	Contorted Primrose	AH		Onagraceae	R	4
<i>Camissonia kernensis</i> ssp. <i>gilmanii</i> (Munz) P. H. Raven	Gilman's evening primrose	AH	-	Onagraceae	R	1
Camissonia lacustris P.H. Raven	Lakeside Primrose	AH		Onagraceae	R	1
Camissonia pusilla P.H. Raven	Puny Hairy Primrose	AH		Onagraceae	R	3
Camissonia strigulosa (Fischer & C. Meyer) Raven	Strigose Primrose	AH		Onagraceae	С	73
<i>Camissoniopsis bistorta</i> (Torr. & A. Gray) W.L. Wagner & Hoch	California or Southern Sun-cups	AH		Onagraceae	С	30
Camissoniopsis cheiranthifolia ssp. suffruticosa (S. Watson) W.L. Wagner & Hoch	Beach Primrose	PH		Onagraceae	U	10



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Camissoniopsis confusa (P.H. Raven) W.L. Wagner & Hoch	Confusing Primrose	AH		Onagraceae	S	29
<i>Camissoniopsis hirtella</i> (E. Greene) W.L. Wagner & Hoch	Small-haired Primrose	AH		Onagraceae	С	58
<i>Camissoniopsis ignota</i> (Jepson) W.L. Wagner & Hoch	Small Primrose	AH		Onagraceae	S	12
<i>Camissoniopsis intermedia</i> (P.H. Raven) W.L. Wagner & Hoch	Intermediate Sun Cups	AH		Onagraceae	О	44
<i>Camissoniopsis lewisii</i> (P.H. Raven) W.L. Wagner & Hoch	Lewis' Evening Primrose	AH	-	Onagraceae	R	1
Camissoniopsis micrantha (Sprengel) W.L. Wagner & Hoch	Tiny Primrose	AH	-	Onagraceae	S	17
<i>Camissoniopsis pallida</i> (Abrams) W.L. Wagner & Hoch ssp. <i>pallida</i>	Pale Primrose	AH		Onagraceae	S	19
Camissoniopsis robusta (P.H. Raven) W.L. Wag	Robust Primrose	AH		Onagraceae	R	1
Canbya candida A. Gray	Pygmy Poppy	AH		Papaveraceae	R, 4.2	1
Cannabis sativa *	Marijuana	РН		Cannabaceae	R	1
Capsella bursa-pastoris (L.) Medikus var. bursa- pastoris *	Shepherd's Purse	AH	FACU	Brassicaceae	S	18
Cardamine breweri S. Watson var. breweri	Bitter-cress	РН	FACW	Brassicaceae	R	1
Cardamine californica (T. & G.) Greene var. californica	California Milkmaids	AH		Brassicaceae	U	9
Cardamine oligosperma Torrey & Gray	Few-seeded Bitter- cress	AH	FAC	Brassicaceae	R	1
Cardamine pachystigma (S. Watson) Rollins var. pachystigma	Toothwort	PH	FAC	Brassicaceae	R	4
Cardaria chalepensis (L.) HandMazz. *	Lens-podded Hoary Cress	РН		Brassicaceae	R	2
Cardionema ramosissimum (Weinm.) A. Mels. & J.F. Macbr.	Sand Mat	PH		Caryophyllaceae	R	4



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Carduus pycnocephalus L. ssp. pycnocephalus *	Italian Thistle	AH		Asteraceae	S	39
Carduus tenuiflorus W. Curtis *	Plumeless Thistle	BH		Asteraceae	R	1
Carex abrupta Mackenzie	Abrupt-beaked Sedge	PG	FAC	Cyperaceae	R	2
Carex alma L. Bailey	Sturdy Sedge	PG	OBL	Cyperaceae	С	37
Carex athrostachya Olney	Slender-beaked Sedge	PG	FACW	Cyperaceae	R	4
Carex aurea Nuttall	Golden-fruited Sedge	PG	OBL	Cyperaceae	R	2
Carex barbarae Dewey	Santa Barbara Sedge	PG	FAC	Cyperaceae	R	1
Carex bolanderi Olney	Bolander Sedge	PG	FAC(W)	Cyperaceae	R	1
Carex brainerdii Mack.	Brainard Sedge	PG		Cyperaceae	R	1
Carex densa L. Bailey	Dense Sedge	PG	OBL	Cyperaceae	R	5
Carex douglasii Boott	Douglas Sedge	PG	FAC	Cyperaceae	U	10
Carex fracta Mackenzie	Fragile-sheathed Sedge	PG	FAC	Cyperaceae	R	6
Carex globosa Boott	Round-fruited Sedge	PG		Cyperaceae	R	1
Carex hassei L. Bailey	Hasse Sedge	PG	FACW	Cyperaceae	R	2
Carex multicaulis L. Bailey	Many-stemmed Sedge	PG		Cyperaceae	R	3
Carex nebrascensis Dewey	Nebraska Sedge	PG	OBL	Cyperaceae	R	1
Carex nudata W. Boott					U	5



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Carex pansa L. Bailey	Sand Dune Sedge	PG	FACU	Cyperaceae	R	2
Carex pellita Muhl. ex Willd.	Woolly Sedge	PG	OBL	Cyperaceae	U	6
Carex praegracilis W. Boott	Clustered Field Sedge	PG	FACW	Cyperaceae	С	33
Carex rossii Boott	Ross Sedge	PG		Cyperaceae	R	1
Carex schottii Dewey	Schott Sedge	PG	OBL	Cyperaceae	R	10
Carex senta Boott	Rough Sedge	PG	OBL	Cyperaceae	О	24
Carex spissa L.H. Bailey					U	1
Carex subfusca W. Boott	Brown Sedge	PG	FAC	Cyperaceae	U	9
Carex triquetra Boott	Triangluar-fruited Sedge	PG		Cyperaceae	R	4
Carex vulpinoidea Michx. *	Brown Fox Sedge	PG	OBL	Cyperaceae	R	1
Carpobrotus chilensis (Molina) N.E. Br. *	Sea Fig	PH/S	FACU	Aizoaceae	R	5
Carpobrotus edulis (L.) N.E. Br. *	Hottentot Fig	PH/S	(FACU)	Aizoaceae	R	4
Carthamus creticus L. * [Carthamus baeticus]	Smooth Distaff Thistle	AH		Asteraceae	U	6
Castilleja affinis Hooker & Arnott ssp. affinis	Lay-and-Collie's Indian Paintbrush	РН		Orobanchaceae	С	33
<i>Castilleja applegatei</i> ssp. <i>martinii</i> (Abrams) Chuang & Heckard	Martin Indian Paintbrush	РН		Orobanchaceae	С	60
Castilleja applegatei ssp. pinetorum (Fern.) Chuang & Heckard	Wavyleaf Indian Paintbrush	РН		Orobanchaceae	U	9
Castilleja attenuata (Gray) Chuang & Heckard	Valley Tassels	AH		Orobanchaceae	R	3



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Castilleja chromosa A. Nelson	Desert Paintbrush	PH		Orobanchaceae	R	2
Castilleja exserta (A.A. Heller) Chuang & Heckard ssp. exserta	Purple Owl's Clover	AH		Orobanchaceae	С	49
Castilleja exserta ssp. venusta (A. Heller) T. I. Chuang & Heckard	Exserted Indian Paintbrush	AH		Orobanchaceae	R	1
Castilleja foliolosa Hook. & Arn.	Woolly Indian Paintbrush	PH		Orobanchaceae	С	80
Castilleja gleasoni Elmer	Mount Gleason Paintbrush	PH		Orobanchaceae	U, 1B.2	9
Castilleja gyroloba Pennell	Oak Flats Indian Paintbrush	PH	(FACU)	Orobanchaceae	R	1
Castilleja linariifolia Benth.	Linaria-leaved Indian Paintbrush	PH		Orobanchaceae	S	21
Castilleja miniata Hook. ssp. miniata	Great Red Indian Paintbrush	PH	FACW	Orobanchaceae	U	8
Castilleja minor (A. Gray) A. Gray ssp. minor	Annual Indian Paintbrush	AH	OBL	Orobanchaceae	R	15
<i>Castilleja minor</i> ssp. <i>spiralis</i> (Jeps.) Chuang & Heckard	Large-flowered Annual Indian Paintbrush	AH	OBL	Orobanchaceae	S	28
Castilleja plagiotoma A. Gray	Mojave Indian Paintbrush	PH	·	Orobanchaceae	R	1
<i>Castilleja subinclusa</i> ssp. <i>franciscana</i> (Pennell) Chuang & Heckard	San Francisco Long- leaved Indian Paintbrush	PH		Orobanchaceae	R	5
Castilleja subinclusa E. Greene ssp. subinclusa	Long-leaved or Jepson Indian Paintbrush	PH		Orobanchaceae	С	71
Castilleja tenuis (A.A. Heller) Chuang & Heckard	Bristle Owl's Clover	AH	FAC	Orobanchaceae	R	3
Caulanthus amplexicaulis S. Watson var. amplexicaulis	Clasping-leaved Jewelflower	AH		Brassicaceae	S	43
Caulanthus anceps Payson	Lemmon Mustard	AH		Brassicaceae	R	3
Caulanthus cooperi (S. Watson) Payson	Cooper Jewelflower	AH		Brassicaceae	R	2



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Caulanthus coulteri S. Watson var. coulteri	Coulter Jewelflower	AH		Brassicaceae	С	63
Caulanthus heterophyllus (Nutt.) Payson var. heterophyllus	Different-leaved Jewelflower	AH		Brassicaceae	R	2
Caulanthus inflatus S. Watson	Desert Candle	AH		Brassicaceae	R	1
Caulanthus lasiophyllus (Hooker & Arnott) Payson	California Mustard	AH		Brassicaceae	С	33
Caulanthus lemmonii S. Watson	Lemmon Jewelflower	AH		Brassicaceae	R, 1B.2	2
Ceanothus cordulatus Kellogg	Mountain Whitethorn, Snow Bush	S		Rhamnaceae	S	23
Ceanothus crassifolius Torrey var. crassifolius	Snowball, Hoaryleaf Ceanothus	S		Rhamnaceae	С	42
Ceanothus crassifolius var. planus Abrams	Flatleaf Snowball	S		Rhamnaceae	О	31
Ceanothus crassifolius X C. pauciflorus [C. vestitus]	Ceanothus Hybrid	S		Rhamnaceae	R	1
<i>Ceanothus cuneatus</i> (Hooker) Nuttall ex Torr. & Gray var. <i>cuneatus</i>	Buck Brush, Wedgeleaf Ceanothus	S		Rhamnaceae	С	116
<i>Ceanothus integerrimus</i> var. <i>macrothyrsus</i> (Torr.) Benson	Umpqua Deer Brush	S/T		Rhamnaceae	R	15
Ceanothus leucodermis E. Greene	Chaparral Whitethorn	S		Rhamnaceae	С	120
Ceanothus leucodermis X C. oliganthus	Hybrid Ceanothus	S		Rhamnaceae	R	1
<i>Ceanothus megacarpus</i> var. <i>insularis</i> (Eastwood) Munz	Island Ceanothus	S		Rhamnaceae	R, 4.3	1
Ceanothus megacarpus Nuttall var. megacarpus	Bigpod Ceanothus	S		Rhamnaceae	R	7
Ceanothus megacarpus var. pendulous McMinn	Pendulous Bigpod Ceanothus	S		Rhamnaceae	R	1
Ceanothus oliganthus Nuttall var. oliganthus	Hoary Ceanothus	S		Rhamnaceae	С	51



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Ceanothus oliganthus var. sorediatus (Hook. & Arn.) Hoover	Jim Brush	S		Rhamnaceae	R	2
Ceanothus palmeri Trel.	Palmer Ceanothus	S		Rhamnaceae	0	40
Ceanothus papillosus T. & G. ssp. papillosus	Wartleaf Ceanothus	S		Rhamnaceae	R	3
Ceanothus pauciflorus DC.	Few-flowered Ceanothus	S		Rhamnaceae	С	50
Ceanothus perplexans Trel.	Mojave Ceanothus	S		Rhamnaceae	R	10
Ceanothus spinosus Nuttall	Greanbark Ceanothus	S	-	Rhamnaceae	U	10
Ceanothus thrysiflorus Eschsch. ssp. thrysiflorus	Blue Blossom Ceanothus	S	-	Rhamnaceae	R	2
Ceanothus tomentosus var. olivaceous Jepson	Woollyleaf Ceanothus	S		Rhamnaceae	R	2
Cenchrus echinatus L. *	Southern Sandbur	AG	FACU	Poaceae	R	1
Cenchrus longispinus (Hackel) Fern. *	Mat Sandbur, Burgrass	AG	UPL	Poaceae	R	1
Centaurea benedicta (L.) L. * [Cnicus benedictus L.]	Blessed Thistle	AH		Asteraceae	S	22
Centaurea cyanus L.	Bachelor's Button, Cornflower	AH	FACU	Asteraceae	R	1
Centaurea melitensis L. *	Tocalote, Napa Thistle	AH		Asteraceae	С	149
Centaurea solstitialis L. *	Yellow Star-thistle	AH		Asteraceae	U	23
Centaurea stoebe ssp. micranthos (Gugler) Hayek *	Spotted Knapweed	BH		Asteraceae	R	1
<i>Centaurium pulchellum</i> (Sw.) Hayek ex Hand Mazz., Stadlm., Janch. & Faltis *	Branched Centaury	AH		Gentianaceae	R	2
Centranthus ruber (L.) DC. *	Red Valerain	PH		Valerianaceae	R	3



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
<i>Centromadia pungens</i> (Hooker & Arnott) E. Greene ssp. <i>pungens</i>	Common Spikeweed	AH	FAC	Asteraceae	R	1
<i>Centrostegia thurberi</i> var. <i>macrotheca</i> (J.T. Howell) Goodman	Thurber Spineflower	AH		Polygonaceae	R	1
Centrostegia thurberi Gray ex Benth. var. thurberi	Thurber Spineflower	AH		Polygonaceae	О	38
Cerastium glomeratum Thuill. *	Mouse-ear Chickweed	AH	UPL	Caryophyllaceae	U	6
Ceratophyllum demersum L.	Hornwort, Coontail	PH	OBL	Ceratophyllaceae	R	4
Cercocarpus betuloides Torrey & A. Gray var. betuloides	Birchleaf Mountain Mahogany	S		Rosaceae	С	217
<i>Cercocarpus betuloides</i> var. <i>blancheae</i> (C. Schneider) Little	Island Mountain Mahogany	S		Rosaceae	R, 4.3	3
<i>Cercocarpus ledifolius</i> var. <i>intermontanus</i> N. Holmgren	Cut-leaved Mountain Mahogany	S		Rosaceae	R	7
Cercocarpus ledifolius Nuttall var. ledifolius	Mountain Mahogany	S		Rosaceae	R	4
Chaenactis artemisiifolia (Gray) Gray	White Pincushion	AH		Asteraceae	U	6
Chaenactis fremontii A. Gray	Desert Pincushion	AH		Asteraceae	R	5
Chaenactis glabriuscula DC. var. glabriuscula	Common Yellow Pincushion	AH		Asteraceae	С	144
Chaenactis glabriuscula var. heterocarpha (A. Gray) H.M. Hall	Different-seeded Yellow Pincushion	AH		Asteraceae	R	2
<i>Chaenactis glabriuscula</i> var. <i>lanosa</i> (DC.) H.M. Hall	Woolly Yellow Pincushion	AH		Asteraceae	U	8
Chaenactis glabriuscula var. megacephala A. Gray	Big-flowered Yellow Pincushion	AH		Asteraceae	R	2
Chaenactis glabriuscula var. orcuttiana (Greene) H.M. Hall	Woolly Yellow Pincushion	AH		Asteraceae	R, 1B.1	2
Chaenactis macrantha D. C. Eaton	Mojave Pincushion	AH		Asteraceae	R	1



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Chaenactis santolinoides E. Greene	Perennial Pincushion	PH		Asteraceae	С	41
Chaenactis stevioides Hook. & Arn.	Desert Pincushion	AH		Asteraceae	S	19
Chaenactis xantiana Gray	Xantus Pincushion	AH		Asteraceae	С	60
<i>Chamaesyce albomarginata</i> (Torrey & A. Gray) Small	Rattlesnake Spurge	AH		Euphorbiaceae	С	49
Chamaesyce maculata (L.) Small *	Spotted Spurge	AH	UPL	Euphorbiaceae	U	8
Chamaesyce melanadenia (Torrey) Milsp.	Squaw Spurge	РН		Euphorbiaceae	R	1
Chamaesyce micromera (Engelm.) Wooton & Standl.	Sonoran Spurge	AH		Euphorbiaceae	R	1
Chamaesyce ocellata (Durand & Hilg.) Millsp. ssp. ocellata	Littleye Spurge	AH		Euphorbiaceae	R	3
Chamaesyce polycarpa (Benth.) Millsp. var. polycarpa	Golondrina	PH		Euphorbiaceae	R	5
Chamaesyce prostrata (Ait.) Small *	Prostrate Spurge	AH	FACU	Euphorbiaceae	R	5
Chamaesyce serpens (H.B.K.) Small *	Matted Sandmat	AH	FACU	Euphorbiaceae	R	2
Chamaesyce serpyllifolia (Pers.) Small ssp. serpyllifolia	Thyme-leaved Spurge	AH		Euphorbiaceae	U	8
Chenopodium album L. *	Lamb's Quarters, Pigweed, White Goosefoot	AH	FACU	Chenopodiaceae	S	54
Chenopodium atrovirens Rydb.	Pigweed	AH		Chenopodiaceae	R	1
Chenopodium berlandieri var. sinuatum (Murr) Wahl	Pitseed Goosefoot	AH	(FAC)	Chenopodiaceae	R	9
Chenopodium berlandieri Moq. var. zschackei (Murr) Graebn.	Pitseed Goosefoot	AH	(FAC)	Chenopodiaceae	R	11
Chenopodium californicum (S. Watson) S. Watson	California Goosefoot, Soap Plant	РН		Chenopodiaceae	С	55



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Chenopodium chenopodioides (L.) Aellen. *	South American Pigweed, Red Goosefoot	AH	FACW	Chenopodiaceae	R	2
Chenopodium desiccatum A. Nelson	Aridland Goosefoot	AH	-	Chenopodiaceae	R	7
Chenopodium fremontii S. Watson	Fremont Goosefoot	AH	FACU	Chenopodiaceae	U	8
Chenopodium glaucum L. var. salinum (Standley) B. Boivin *	Oakleaf Goosefoot	AH	FAC	Chenopodiaceae	R	2
Chenopodium hians Standl.	Masked or Mountain Goosefoot	AH		Chenopodiaceae	R	2
<i>Chenopodium leptophyllum</i> (Moquin-Tandon) Nuttall ex S. Watson	Narrowleaf Goosefoot	AH	FACU	Chenopodiaceae	R	2
Chenopodium macrospermum var. halophilum (Philippi) Standley *	Coast Goosefoot	AH	FACW	Chenopodiaceae	R	5
Chenopodium murale L. *	Nettle-leaved Goosefoot	AH	FACU	Chenopodiaceae	S	13
Chenopodium pratericola Rydb.	Narrow-leaved Goosefoot	AH		Chenopodiaceae	R	3
Chenopodium rubrum L. var. rubrum	Red Goosefoot	AH	FACW	Chenopodiaceae	R	5
Chenopodium strictum Roth ssp. strictum *	Goosefoot	AH	(FACU)	Chenopodiaceae	R	2
Chenopodium strictum ssp. glaucophyllum (Aellen.) H.A. Wahl *	Whiteleaf Goosefoot	AH	(FACU)	Chenopodiaceae	R	1
Chloris virgata Sw. *	Windmillgrass	AG	FACU	Poaceae	R	1
Chlorogalum pomeridianum (DC.) Kunth var. pomeridianum	Soap Plant	PG		Agavaceae	S	28
Chloropyron maritimum (Nutt. ex Benth.) ssp. maritimum	Saltmarsh Birds-beak	AH	OBL	Orobanchaceae	S, 1B.1, FE, SE	13
Chorispora tenella (Pall.) de Candolle *	Common Blue Mustard	AH		Brassicaceae	R	1
Chorizanthe blakleyi Hardham	Blakley's Spineflower	AH		Polygonaceae	R, 1B.3	1



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Chorizanthe brevicornu Torr. var. brevicornu	Brittle Spineflower	AH		Polygonaceae	R	2
Chorizanthe breweri S. Watson	Brewer's Spineflower	AH		Polygonaceae	R, 1B.3	1
Chorizanthe clevelandii C. Parry	Cleveland Spineflower	AH		Polygonaceae	U	12
Chorizanthe douglasii Benth.	Douglas Spineflower	AH		Polygonaceae	R, 4.3	1
Chorizanthe membranacea Benth.	Pink Spineflower	AH		Polygonaceae	R	1
<i>Chorizanthe parryi</i> var. <i>fernandina</i> (S. Watson) Jeps.	San Fernando Valley Spineflower	AH		Polygonaceae	R, SE, 1B.1	6
Chorizanthe parryi S. Watson var. parryi	Parry Spineflower	AH		Polygonaceae	R, 1B.1	2
Chorizanthe procumbens Nutt.	Prostrate Spineflower	AH		Polygonaceae	R	1
Chorizanthe spinosa S. Watson	Mojave Spineflower	AH		Polygonaceae	R, 4.2	2
Chorizanthe staticoides Bentham var. staticoides	Turkish Rugging, Statice Spineflower	AH		Polygonaceae	С	97
Chorizanthe staticoides forma bracteata Goodman	Turkish Rugging, Statice Spineflower	AH		Polygonaceae	R	1
Chorizanthe uniaristata T. & G.	One-awned Spineflower	AH		Polygonaceae	R	2
Chorizanthe watsonii T. & G.	Watson Spineflower	AH		Polygonaceae	О	25
Chorizanthe xanti S. Watson var. xanti	Xantus Spineflower	AH		Polygonaceae	С	55
Chrysanthemum coronarium L. *	Garland Chrysanthemum, Crown Daisy	AH		Asteraceae	R	1
Chrysothamnus viscidiflorus (Hook.) Nutt. ssp. viscidiflorus	Yellow Rabbitbrush	S		Asteraceae	R	11
Chylismia brevipes (A. Gray) Small ssp. brevipes	Yellow Cups	AH		Onagraceae	R	1



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Chylismia claviformis (Torr. & Frém.) A. Heller ssp. claviformis	Browneyes	PH		Onagraceae	R	4
Cichorium intybus L. *	Chicory	PH		Asteraceae	R	2
<i>Cicuta maculata</i> var. <i>bolanderi</i> (S. Watson) G.A. Mulligan	Bolander's Water- hemlock	PH	OBL	Apiaceae	R	2
Cirsium arvense (L.) Scop. *	Canada or Creeping Thistle	РН	FACU	Asteraceae	R	1
<i>Cirsium occidentale</i> var. <i>californicum</i> (Gray) Keil & C. Turner	California Thistle	BH		Asteraceae	С	50
Cirsium occidentale var. coulteri Harv. & A. Gray	Coulter's Thistle	BH		Asteraceae	R	2
Cirsium occidentale (Nuttall) Jepson var. occidentale	Cobweb Thistle	BH		Asteraceae	О	40
<i>Cirsium occidentale</i> var. <i>venustum</i> (E. Greene) Jepson	Red or Venus Thistle	BH		Asteraceae	С	35
Cirsium ochrocentrum A. Gray var. ochrocentrum *	Yellowspine Thistle	РН		Asteraceae	R	1
<i>Cirsium scariosum</i> Nutt. var. <i>citrinum</i> (Petr.) D.J. Keil	Southern Meadow Thistle	BH	FAC	Asteraceae	R	5
Cirsium vulgare (Savi) Tenore *	Common or Bull Thistle	BH	FACU	Asteraceae	S	22
Cistus incanus L. *	Hairy Rock-rose	S		Cistaceae	R	3
Cistus ladanifer L. *	Gum Cistus or Rock- rose	S		Cistaceae	S	13
Citrullus lanatus (Thunb.) Matsumura & Nakai *	Watermelon	AH		Cucurbitaceae	R	1
Citrus Xaurantium L. (pro sp.) [C. maxima \times C. reticulata] *	Bitter Orange	S/T		Rutaceae	R	1
Clarkia affinis Lewis & Lewis	Hairy Clarkia	AH		Onagraceae	R	1
Clarkia bottae (Spach) Lewis & Lewis	Punchbowl Godetia	AH		Onagraceae	С	51



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Clarkia cylindrica ssp. clavicarpa W. Davis	Cylindrical Godetia	AH		Onagraceae	R	2
Clarkia cylindrica (Jepson) H. Lewis & M. Lewis ssp. cylindrica	Cylindrical Godetia	AH		Onagraceae	0	28
Clarkia dudleyana (Abrams) J.F. Macbr.	Dudley Godetia	AH		Onagraceae	U	9
Clarkia epilobioides (Nutt.) A. Nels. & J.F. Macbr.	Willow-herb Godetia	AH		Onagraceae	U	9
Clarkia heterandra (Torrey) H. Lewis & Raven	California Gaura	AH		Onagraceae	0	24
Clarkia modesta Jeps.	Modest Clarkia	AH		Onagraceae	R	1
<i>Clarkia purpurea</i> (Curtis) A. Nelson & J. F. Macbr. ssp. <i>purpurea</i>	Purple Clarkia	AH		Onagraceae	U	7
<i>Clarkia purpurea</i> ssp. <i>quadrivulnera</i> (Douglas) H. Lewis & M. Lewis	Four-spotted Purple Clarkia	AH		Onagraceae	С	46
<i>Clarkia purpurea</i> ssp. <i>viminea</i> (Douglas) Lewis & Lewis	Large Purple Clarkia	AH		Onagraceae	R	3
Clarkia rhomboidea Douglas	Rhomboid Clarkia	AH		Onagraceae	S	17
Clarkia similis Harlan Lewis & Ernst	Copy-cat Clarkia	AH		Onagraceae	R	2
Clarkia speciosa ssp. polyantha H. Lewis & M. Lewis	Many-stamened Redspot Clarkia	AH		Onagraceae	R	1
Clarkia speciosa F.H. Lewis & M.R. Lewis ssp. speciosa	Redspot Clarkia	AH		Onagraceae	R	1
Clarkia unguiculata Lindley	Elegant Farewell-to- Spring	AH		Onagraceae	С	47
Clarkia xantiana Gray ssp. xantiana	Xantus Clarkia	AH		Onagraceae	U	9
Claytonia exigua T. & G. ssp. exigua	Small Miner's Lettuce	AH		Montiaceae	S	19
<i>Claytonia gabrielensis</i> Miller & Chambers ssp. <i>gabrielensis</i>	San Gabriel Miner's Lettuce	AH		Montiaceae	R	1



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Claytonia parviflora Hook. ssp. parviflora	Small-flowered Miner's Lettuce	AH	FACU	Montiaceae	С	69
<i>Claytonia parviflora</i> ssp. <i>utahensis</i> (Rydb.) John M. Mill. & K.L. Chambers	Utah Spring Beauty	AH	FACU	Montiaceae	R	5
<i>Claytonia parviflora</i> ssp. <i>viridis</i> (Davidson) J.M. Miller & Chambers	Small-flowered Miner's Lettuce	AH	FACU	Montiaceae	R	6
Claytonia perfoliata ssp. intermontana J.M. Miller & K.L. Chambers	Great Basin Miner's Lettuce	AH	FAC	Montiaceae	R	5
<i>Claytonia perfoliata</i> ssp. <i>mexicana</i> (Rydb.) J.M. Miller & Chambers	Miner's Lettuce	AH	FAC	Montiaceae	S	13
Claytonia perfoliata Donn ex Willd. ssp. perfoliata	Miner's Lettuce	AH	FAC	Montiaceae	С	42
Claytonia rubra (Howell) Tidestr. subsp. depressa (A. Gray) John M. Mill. & K.L. Chambers					R	1
Claytonia rubra (J.T. Howell) Tidestrom ssp. rubra	Red Miner's Lettuce	AH		Montiaceae	S	17
Clematis lasiantha Nuttall	Pipestem Clematis	PV		Ranunculaceae	С	45
Clematis ligusticifolia Nuttall	Virgin's Bower, Old Man's Beard	PV	FAC	Ranunculaceae	О	45
Clematis pauciflora Nuttall	Ropevine	PV		Ranunculaceae	R	1
Clinopodium douglasii (Benth.) Kuntze	Yerba Buena	РН	FACU	Lamiaceae	R	1
Clinopodium mimuloides Kuntze	Monkeyflower Yerba Buena	PH/S		Lamiaceae	R, 4.2	6
Colletia paradoxa (Spreng.) Escal. *	Anchor Plant	S		Rhamnaceae	R	1
Collinsia bartsiifolia Benth. var. bartsiifolia	White Blue-eyed Mary, White Chinese Houses	AH		Plantaginaceae	R	5
<i>Collinsia bartsiifolia</i> var. <i>davidsonii</i> (Parish) V. Newsom	Davidson White Chinese Houses	AH		Plantaginaceae	S	15
Collinsia callosa Parish	Large-fruited Blue- eyed Mary	AH		Plantaginaceae	S	19



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Collinsia childii A. Gray	Child Blue-eyed Mary	AH	-	Plantaginaceae	S	11
Collinsia concolor Greene	White Collinsia	AH		Plantaginaceae	R	1
Collinsia heterophylla var. austromontana (Newsom) Munz	Downy Chinese Houses	AH		Plantaginaceae	R	2
Collinsia heterophylla Buist var. heterophylla	Chinese Houses	AH		Plantaginaceae	0	35
Collinsia parryi A. Gray	Parry Blue-eyed Mary	AH		Plantaginaceae	S	12
Collinsia parviflora Lindley	Blue-eyed Mary, Blue Lips	AH		Plantaginaceae	R	5
<i>Collinsia torreyi</i> var. <i>wrightii</i> (S. Watson) I.M. Johnston	Wright Blue-eyed Mary	AH		Plantaginaceae	U	7
Collomia grandiflora Lindley	Large-flowered Collomia	AH		Polemoniaceae	S	20
Collomia tinctoria Kellogg	Yellow-staining Collomia	AH		Polemoniaceae	R	3
<i>Comarostaphylis diversifolia</i> ssp. <i>planifolia</i> (Jeps.) G.D. Wallace	Simpleleaf Summer Holly	S		Ericaceae	R	0
Conioselinum pacificum (S. Watson) J. Coulter & Rose	Pacific Hemlockparsley	PH	FAC	Apiaceae	R	1
Conium maculatum L. *	Poison Hemlock	BH	FACW	Apiaceae	R	5
Conringia orientalis (L.) Dumortier *	Rabbit's-ear, Treacle Mustard	AH		Brassicaceae	R	1
Convolvulus arvensis L. *	Bindweed	PV		Convolvulaceae	S	14
Convolvulus simulans Perry	Small-flowered Morning-glory	AV		Convolvulaceae	R, 4.2	1
Conyza bonariensis (L.) Cronq. *	Flax-leaved Fleabane, South American Horseweed	AH	FACU	Asteraceae	U	9
Conyza canadensis (L.) Cronq.	Horseweed	AH	FACU	Asteraceae	0	38



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Conyza floribunda Kunth [Erigeron sumatrensis Retz.] *	Many-flowered Horseweed	AH	-	Asteraceae	R	3
Cordylanthus nevinii A. Gray	Nevin Bird's-Beak	AH	-	Orobanchaceae	S	18
Cordylanthus rigidus (Benth.) Jepson ssp. rigidus	Rigid Birds-beak	AH	-	Orobanchaceae	Ο	40
Cordylanthus rigidus ssp. setiger Chuang & Heckard	Dark-tipped Rigid Bird's-Beak	AH	-	Orobanchaceae	U	16
Cordyline fruticosa (L.) A. Chev. *	Tiplant	S	-	Asparagaceae	R	1
Cordyline terminalis var. cannifolia (R. Br.) Benth. *	Palm Lily	S		Asparagaceae	R	1
<i>Corethrogyne filaginifolia</i> (Hook. & Arn.) Nutt. var. <i>filaginifolia</i>	California Cudweed- aster	PH		Asteraceae	С	272
Corethrogyne filaginifolia var. californica	California Sand-aster	PH		Asteraceae	R	1
Coriandrum sativum L. *	Coriandra, Cilantro	AH		Apiaceae	R	1
Cornus glabrata Bentham	Brown Dogwood	S	FACW	Cornaceae	U	9
Cornus nuttallii Audubon	Mountain Dogwood	Т	FACU	Cornaceae	R	2
Cornus sericea L. ssp. sericea	American or Creek Dogwood	S		Cornaceae	R	1
Cortaderia jubata (Lemoine) Stapf *	Andean Pampas Grass	PG	FACU	Poaceae	R	3
<i>Cortaderia selloana</i> (Schultes) Aschers. & Graegner *	Pampas Grass	PG	FACU	Poaceae	U	8
Cotinus coggygria Scop. *	European Smoketree	T/S		Anacardiaceae	R	1
Cotoneaster pannosus Franchet *	Cotoneaster	S		Rosaceae	R	1
Cotula australis (Sieber) Hooker f. *	Australian Brass- buttons	AH	FAC	Asteraceae	R	5



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Cotula coronopifolia L. *	African Brass- buttons	AH	OBL	Asteraceae	S	13
Cotyledon orbiculata var. oblonga (Haw.) DC. *	Pig's Ear	S		Crassulaceae	R	2
Crassula aquatica (L.) Schönl.	Water Pigmy-Weed	AH	OBL	Crassulaceae	R	2
Crassula connata (Ruiz, Lopez & Pavon) A. Berger	Pygmy [Sand-]Weed	AH	FAC	Crassulaceae	S	18
Crassula tillea Lester-Garl. *	Water Pygmy-Weed	AH	FACU	Crassulaceae	R	1
Crataegus phaenopyrum (L. f.) Medik. *	Washington Hawthorn	S/T		Rosaceae	R	3
Crepis acuminata Nuttall	Long-leaved Hawksbeard	PH		Asteraceae	R	4
Crepis occidentalis Nuttall ssp. occidentalis	Western Hawksbeard	PH		Asteraceae	U	10
Crepis occidentalis ssp. pumila (Rydb.) Babcock & Stebbins	Western Hawksbeard	PH		Asteraceae	U	6
Cressa truxillensis Kunth	Spreading Alkali- Weed	PH	FACW	Convolvulaceae	S	13
<i>Crocanthemum scoparium</i> (Nutt.) Millsp. var. <i>scoparium</i>	Peak Rushrose	S		Cistaceae	U	7
<i>Crocanthemum scoparium</i> var. <i>vulgare</i> (Jeps.) Sorrie	Common Peak Rushrose	S		Cistaceae	R	5
Croton californicus Muell. Arg. var. californicus	California Croton	PH		Euphorbiaceae	S	18
Croton setiger Hooker [Eremocarpus setiger (Hooker) Bentham]	Dove Weed, Turkey Mullein	AH		Euphorbiaceae	S	40
Crypsis schoenoides (L.) Lam. *	Swamp Grass	AG	OBL	Poaceae	S	14
Crypsis vaginiflora (Forsskal) Opiz *	Prickle Grass	AG	OBL	Poaceae	R	1
Cryptantha affinis (A. Gray) E. Greene	Side-groved Forget- Me-Not	AH		Boraginaceae	R	2



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Cryptantha barbigera (A. Gray) E. Greene var. barbigera	Bearded Forget-Me- Not	AH		Boraginaceae	U	8
Cryptantha clevelandii E. Greene var. clevelandii	Cleveland Forget- Me-Not	AH		Boraginaceae	0	24
Cryptantha clevelandii var. florosa I.M. Johnston	Coastal Forget-Me- Not	AH		Boraginaceae	S	16
Cryptantha clokeyi I.M. Johnst.	Clokey's Forget-Me- Not	AH		Boraginaceae	R, 1B.2	3
Cryptantha corollata (I.M. Johnston) I.M. Johnston	Crowned Forget- Met-Not	AH		Boraginaceae	С	36
Cryptantha decipiens (M.E. Jones) A.A.Heller	Gravel Forget-Me- Not	AH		Boraginaceae	S	19
Cryptantha echinella E. Greene	Prickly Forget-Me- Not	AH		Boraginaceae	S	18
Cryptantha flaccida (Lehm.) E. Greene	Flaccid Forget-Me- Not	AH		Boraginaceae	R	5
Cryptantha hispidissima Greene	Bristly Forget-Me- Not	AH		Boraginaceae	U	9
Cryptantha holoptera (A. Gray) J.F. Macbr.	Winged Forget-Me- Not	AH		Boraginaceae	R	1
Cryptantha humilis (A. Gray) Payson	Low Forget-Me-Not	PH		Boraginaceae	R	1
Cryptantha intermedia (A. Gray) E. Greene var. intermedia	Common Forget-Me- Not	AH		Boraginaceae	С	77
Cryptantha intermedia (A. Gray) Greene var. johnstonii J.F. Macbr.	Johnston's Forget- Me-Not	AH		Boraginaceae	U	10
Cryptantha juniperensis R.B. Kelley & M.G. Simpson [C. nevadensis var. rigida]	Rigid Nevada Forget- Me-Not	AH		Boraginaceae	С	78
Cryptantha leiocarpa (Fischer & C. Meyer) E. Greene	Coast Forget-Me-Not	AH		Boraginaceae	R	2
Cryptantha maritima (Greene) Greene	Seaside Forget-Me- Not	AH		Boraginaceae	R	4
Cryptantha microstachys (A. Gray) E. Greene	Tejon Forget-Me-Not	AH		Boraginaceae	С	45



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Cryptantha mohavensis (Greene) Greene	Mojave Forget-Me- Not	AH		Boraginaceae	R	1
Cryptantha muricata var. denticulata (Greene) I.M. Johnst.	Prickly-nut Forget- Me-Not	AH		Boraginaceae	R	15
<i>Cryptantha muricata</i> var. <i>jonesii</i> (A. Gray) I.M. Johnston	Jones Prickly Forget- Me-Not	AH		Boraginaceae	0	32
Cryptantha muricata (Hooker & Arnott) Nelson & Macbr. var. muricata	Showy Prickly Forget-Me-Not	AH		Boraginaceae	С	81
Cryptantha nemaclada E. Greene	Colusa Forget-Me- Not	AH		Boraginaceae	S	11
Cryptantha nevadensis A. Nelson & Kennedy var. nevadensis	Nevada Forget-Me- Not	AH		Boraginaceae	S	34
Cryptantha oxygona (A. Gray) E. Greene	Sharp-not Forget- Me-Not	AH		Boraginaceae	С	39
Cryptantha pterocarya (Torr.) E. Greene var. pterocarya	Wing-nut Forget-Me- Not	AH		Boraginaceae	U	13
Cryptantha pterocarya var. purpusii	Purpus' Wing-nut Forget-Me-Not	AH		Boraginaceae	R	3
Cryptantha rattannii E. Greene	Rattan's Forget-Me- Not	AH		Boraginaceae	R, 4.3	2
Cryptantha similis K. Mathew & P.H. Raven	Dome Forget-Me- Not	AH		Boraginaceae	U	7
Cryptantha simulans E. Greene	Pine Forget-Me-Not	AH		Boraginaceae	S	19
Cryptantha sparsiflora (E. Greene) E. Greene	Few-flowered Forget-Me-Not	AH		Boraginaceae	R	4
Cryptantha sp. nova Michael G. Simpson	new Forget-Me-Not	AH		Boraginaceae	U	2
Cryptantha torreyana (A. Gray) E. Greene var. torreyana	Torrey Forget-Me- Knot	AH		Boraginaceae	U	8
Cryptantha utahensis (A. Gray) Greene	Scented Forget-Me- Not	AH		Boraginaceae	R	3
Cucurbita foetidissima Kunth	Calabazilla	PV		Cucurbitaceae	S	23



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Cucurbita pepo L. var. pepo *	Field Pumpkin	AV		Cucurbitaceae	R	1
<i>Cuscuta californica</i> Hooker & Arnott var. <i>californica</i>	California Dodder	AV		Convolvulaceae	С	46
<i>Cuscuta californica</i> Hook. & Arn. var. <i>papillosa</i> Yunck.	Short-flowered California Dodder	AV		Convolvulaceae	R	1
Cuscuta campestris Yuncker [C. pentagona]	Western Field Dodder	AV		Convolvulaceae	R	14
Cuscuta denticulata Engelmann	Desert dodder	AV		Convolvulaceae	R	4
Cuscuta indecora Choisy var. indecora	Pretty Dodder	AV		Convolvulaceae	R	1
Cuscuta occidentalis Millsp.					R	2
Cuscuta pacifica Costea & M.A.R. Wright var. pacifica	Pacific Saltmarsh Dodder	AV	(OBL)	Convolvulaceae	U	8
<i>Cuscuta salina</i> Engelmann in W.H. Brewer, S. Watson, & A. Gray	Saltmarsh Dodder	AV	(FACW)	Convolvulaceae	R	5
Cuscuta subinclusa Durand & Hilg.	Canyon Dodder	AV		Convolvulaceae	S	14
Cycloloma atriplicifolium (Spreng.) J.M. Coult *	Saltbush Cycloloma	AH	FACU	Chenopodiaceae	R	1
Cyclospermum leptophyllum (Pers.) Britton & P. Wilson *	Fineleaf Celery	AH		Apiaceae	R	2
Cylindropuntia acanthocarpa (Engelm. & J.M. Bigelow) F.M Knuth var. acanthocarpa	Buckhorn Cholla	S		Cactaceae	R	1
<i>Cylindropuntia californica</i> (Torr. & A. Gray) F.M. Knuth var. <i>californica</i>	Snake Cholla	S		Cactaceae	R	1
Cylindropuntia californica var. parkeri (J.M. Coulter) Pinkava	Cane or Snake Cholla	S		Cactaceae	R	4
<i>Cylindropuntia echinocarpa</i> (Engelm. & J. M. Bigelow) F. M. Knuth	Silver Cholla	S	-	Cactaceae	R	4
<i>Cylindropuntia prolifera</i> (Engelm.) F.M. Kunth in C. Backeberge & F.M. Knuth	Coastal Cholla	S		Cactaceae	R	2



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Cynara cardunculus L. ssp. cardunculus *	Cardoon, Thistle Artichoke	PH		Asteraceae	R	3
Cynodon dactylon (L.) Pers. var. dactylon *	Bermuda Grass	PG	FACU	Poaceae	S	21
Cynosurus echinatus L. *	Hedgehog Dogtail	AG		Poaceae	R	1
Cyperus eragrostis Lam.	Umbrella-sedge	PG	FACW	Cyperaceae	R	9
Cyperus erythrorhizos Muhl.	Redroot Flatsedge	PG	FACW	Cyperaceae	R	1
Cyperus esculentus var. leptostachyus Boechkeler	Yellow Nutgrass, Chufa	PG	FACW	Cyperaceae	R	2
Cyperus involuratus Rottb. *	Alternate-leaf Flatsedge	PG	FACW	Cyperaceae	R	1
Cyperus laevigatus L.	Smooth Flatsedge	PG	FACW	Cyperaceae	R	2
Cyperus niger Ruiz & Pav.	Black Flatsedge	PG	FACW	Cyperaceae	R	1
Cyperus odoratus L.	Flatsedge	AG	FACW	Cyperaceae	R	1
Cyperus parishii Britton	Parish's Flatsedge	PG	FACW	Cyperaceae	R	1
Cyperus rotundus L. *	Purple Nutsedge	PG	FAC	Cyperaceae	R	1
Cyperus strigosus L.	False Nutsedge	PG	FACW	Cyperaceae	R	1
Cystopteris fragilis (L.) Bernhardi	Brittle or Fragile Fern	PF	FACU	Dryopteridaceae	S	14
Cytisus scoparius (L.) Link *	Scotch Broom	S		Fabaceae	R	1
Cytisus striatus (Hill) Rothm. *	Portuguese Broom	S		Fabaceae	R	1
Dactylis glomerata L. *	Orchard Grass	PH	FACU	Poaceae	R	3



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Danthonia unispicata (Thurb.) Vasey	One-spike Oat Grass	PG		Poaceae	R	1
Datisca glomerata (C. Presl) Baillon	Durango Root	PH	FACW	Datiscaceae	С	51
Datura stramonium L. *	Jimson Weed	AH		Solanaceae	R	2
Datura wrightii Regel	Jimson Weed	AH	UPL	Solanaceae	С	62
Daucus carota L. *	Carrot, Queen Ann's Lace	AH	UPL	Apiaceae	R	1
Daucus pusillus Michaux	Southwestern Carrot, Yerba de la Vibora	AH		Apiaceae	S	19
Deinandra fasciculata (DC.) E. Greene	Fasciculed Tarplant	AH	FACU	Asteraceae	С	39
Deinandra kelloggii (E. Greene) E. Greene	Kellogg Tarplant	AH		Asteraceae	R	2
Deinandra minthornii (Jepson) B.G. Baldwin	Santa Susana Tarplant	S		Asteraceae	R, SR, 1B.2	3
Deinandra pallida (D.D. Keck) B.G. Baldwin	Kern Tarplant	AH		Asteraceae	R	1
<i>Deinandra paniculata</i> (A. Gray) Davidson & Moxley	Paniculate Tarplant	AH	FACU	Asteraceae	R, 4.2	2
Delphinium cardinale Hooker	Scarlet or Cardinal Larkspur	PH		Ranunculaceae	О	27
Delphinium gracilentum Greene	Coast Larkspur	PH		Ranunculaceae	R	6
Delphinium gypsophilum Ewan ssp. gypsophilum	Gypsum Larkspur	РН		Ranunculaceae	R, 4.2	2
<i>Delphinium hansenii</i> ssp. <i>kernense</i> (Davidson) Ewan	Kern Larkspur	РН		Ranunculaceae	R	2
Delphinium hesperium A. Gray ssp. hesperium	Western Larkspur	РН	FAC	Ranunculaceae	R	2
Delphinium parishii ssp. pallidum (Munz) M.J. Warnock	Pale-flowered Larkspur	РН		Ranunculaceae	С	44



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Delphinium parishii A. Gray ssp. parishii	Parish's Larkspur	PH		Ranunculaceae	С	36
<i>Delphinium parryi</i> ssp. <i>maritimum</i> (Davidson) M.J. Warnock	Maritime Larkspur	РН		Ranunculaceae	R	2
Delphinium parryi A. Gary ssp. parryi	Parry Larkspur	PH		Ranunculaceae	С	42
<i>Delphinium parryi</i> ssp. <i>purpureum</i> (F. Lewis & Epling) M.J. Warnock	Mount Pinos Larkspur	PH		Ranunculaceae	O, 4.3	28
Delphinium patens ssp. hepaticoideum Ewan	Spreading Larkspur	PH		Ranunculaceae	S	16
Delphinium patens ssp. montanum (Munz) Ewan	Mountain Spreading Larkspur	РН		Ranunculaceae	О	22
Delphinium umbraculorum F.H. Lewis & Epling	Umbrella Larkspur	PH		Ranunculaceae	R, 1B.3	2
Dendromecon rigida Bentham ssp. rigida	Bush Poppy	S		Papaveraceae	С	74
Deschampsia cespitosa (L.) Beauv. ssp. cespitosa	Tufted Hairgrass	PG	FACW	Poaceae	R	3
<i>Deschampsia danthanoides</i> (Trin.) Munro ex Bentham	Annual Hairgrass	AG	FACW	Poaceae	S	11
Deschampsia elongata (Hooker) Bentham	Slender Hairgrass	PG	FACW	Poaceae	R	1
Descurainia adenophora (Wooton & Standley) O.E. Schulz in H.G.A. Engler	Desert Tansy Mustard	BH	FACU	Brassicaceae	R	1
Descurainia californica (A. Gray) O.E. Schulz	California Tansy Mustard	AH		Brassicaceae	R	1
Descurainia pinnata (Walter) Britton	Western Tansy Mustard	AH		Brassicaceae	R	17
Descurainia pinnata ssp. brachycarpa (Richardson) Detling	Short-pod Tansy Mustard	AH		Brassicaceae	R	4
Descurainia pinnata ssp. glabra (Wooton & Standl.) Detling	Naked Western Tansy Mustard	AH		Brassicaceae	S	19
Descurainia pinnata ssp. halictorum (Cockerell) Detl.	Western Tansy Mustard	AH		Brassicaceae	R	4



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Descurainia pinnata (Walter) Britton ssp. intermedia (Rydb.) Detling	Intermediate Western Tansy Mustard	AH	-	Brassicaceae	R	1
Descurainia pinnata ssp. menziesii (DC.) Detl.	Menzies Tansy Mustard	AH		Brassicaceae	U	10
Descurainia 47ophia (L.) Webb *	Tansy Mustard	AH		Brassicaceae	S	20
Dicentra pauciflora S. Watson	Few-flowered Bleeding Heart	PH		Fumariaceae	R	1
Dichondra occidentalis House	Western Dichondra	PH		Convolvulaceae	R, 4.2	1
Dieteria canescens (Pursh) Torr. Var. canescens	Hoary-Aster	BH		Asteraceae	U	8
Dieteria canescens var. leucanthemifolia (Greene) D.R. Morgan & R.L. Hartm.	Whiteleaf Hoary- Aster	BH		Asteraceae	R	1
Dieteria canescens var. shastensis (A. Gray) D.R. Morgan & R.L. Hartm.	Shasta Hoary-Aster	BH		Asteraceae	R	9
Dietes iridioides (L.) Sweet *	Fortnight Lily	PG		Iridaceae	R	1
Digitaria sanguinalis (L.) Scop. *	Hairy Crabgrass	PG	FACU	Poaceae	R	9
Dimorphotheca ecklonis DC. *	Blue & White Daisybush	S		Asteraceae	R	1
Dimorphotheca fruticosa (L.) DC. *	Trailing African Daisy	S		Asteraceae	R	1
Dimorphotheca sinuata DC. *	Cape-Marigold, African Daisy	AH		Asteraceae	R	3
Diplacus australis (Munz) Tulig	Southern Monkeyflower	S		Phrymaceae	R	1
Diplacus bigelovii (Gray) Nesom var. bigelovii	Bigelow Monkeyflower	AH		Phrymaceae	U	9
Diplacus bolanderi (A. Gray) Nesom	Bolander Monkeyflower	AH		Phrymaceae	R	2
Diplacus brevipes (Bentham) Nesom	Short or Wide-throat Monkeyflower	AH		Phrymaceae	С	46



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Diplacus calycinus Eastw.	Fuzzy Bush Monkeyflower	S		Phrymaceae	О	22
Diplacus congdonii (B.L. Robinson) Nesom	Congdon Monkeyflower	AH	FAC	Phrymaceae	R	1
Diplacus constrictus (A.L. Grant) Nesom	Narrow-throated Monkeyflower	AH		Phrymaceae	С	34
Diplacus constrictus (A.L. Grant) Nesom X Diplacus johnstonii (A.L. Grant) Nesom	Hybrid Narrow- throated Monkeyflower	AH		Phrymaceae	U	10
Diplacus fremontii (Benth.) Nesom var. fremontii	Fremont Monkeyflower	AH		Phrymaceae	R	4
Diplacus johnstonii (A.L. Grant) Nesom	Johnston Monkeyflower	AH		Phrymaceae	R, 4.3	2
Diplacus longiflorus (Nuttall) A. Grant	Sticky Bush Monkeyflower	S	FACU	Phrymaceae	С	135
Diplacus rattanii (A. Gray) Nesom	Rattan's Monkeyflower	AH		Phrymaceae	R	1
Diplacus rutilus (A. Grant) McMinn	Red Sticky Bush Monkeyflower	S		Phrymaceae	R	1
Dipterostemon capitatus (Bentham) Rydb. ssp. capitatus	Blue Dicks	PG	FACU	Themidaceae	С	116
Dipterostemon capitatus (Benth.) Rydb. ssp. pauciflorus (Torr.) R.E. Preston	Few Flowered Blue Dicks	PG		Themidaceae	R	1
<i>Distichlis littoralis</i> (Engelm.) H.L. Bell & Columbus	Shoregrass	PG	OBL	Poaceae	U	10
Distichlis spicata (L.) E. Greene	Saltgrass	PG	FAC	Poaceae	О	32
Dittrichia graveolens (L.) W. Greuter *	Stinkwort	AH		Asteraceae	R	3
Dodecahema leptoceras (A. Gray) G.L. Nesom	Slender-horned Spineflower	AH	-	Polygonaceae	R, 1B.1	1
Dodecatheon alpinum (A. Gray) E. Greene	Alpine Shooting Star	PH	FACU	Primulaceae	R	2
Draba cuneifolia T. & G. var. cuneifolia	Wedgeleaf Draba	AH		Brassicaceae	R	3



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Draba verna L.	Vernal Whitlow- grass	AH	-	Brassicaceae	R	3
Drosanthemum floribundum (Haw.) Schwantes *	Dew Flower Iceplant	PH		Aizoaceae	R	4
Drymocallis glandulosa (Lindley) Rydberg var. glandulosa	Sticky Cinquifoil	PH	FAC	Rosaceae	S	31
<i>Drymocallis glandulosa</i> var. <i>reflexa</i> (E. Greene) Ertter	Greene Cinquifoil	PH	FAC	Rosaceae	U	9
Drymocallis glandulosa var. viscida (Parish) Ertter	Sticky Cinquifoil	PH	FAC	Rosaceae	R	3
<i>Drymocallis glandulosa</i> var. <i>wrangelliana</i> (Fisch. & Avé-Lall.) Ertter	Wrangell's Cinquifoil	РН	FAC	Rosaceae	R	4
Drymocallis lactea (Greene) Rydb. var. lactea	Sierra Nevada Sticky Cinquifoil	РН	FAC	Rosaceae	S	15
Dryopteris arguta (Kaulfuss) Maxon	Coastal or Marginal Wood Fern, Yerba del Golpe	PF		Dryopteridaceae	О	36
Dudleya blochmaniae (Eastw.) Moran ssp. blochmaniae	Blochman Live- forever	PH		Crassulaceae	R, 1B.1	2
Dudleya caespitosa (Haw.) Britt. & Rose	Sea Lettuce	PH		Crassulaceae	R	1
Dudleya cymosa (Lem.) Britton & Rose ssp. cymosa	Canyon Live-forever	PH		Crassulaceae	S	18
Dudleya cymosa ssp. pumila (Rose) K. Nakai	Santa Monica Mtns. Live-forever	PH		Crassulaceae	S	14
Dudleya lanceolata (Nuttall) Britton & Rose	Lanceleaf Live- forever, Rock Lettuce	РН		Crassulaceae	С	59
Dudleya pulverulenta (Nuttall) Britton ssp. pulverulenta	Chalky Live-forever	РН		Crassulaceae	S	31
Dudleya saxosa ssp. aloides (Rose) Moran	Panamint Live- forever	РН		Crassulaceae	R	1
Dudleya verityi N. Nakai	Verity Live-forever	РН		Crassulaceae	R, 1B.2, FT	5
Dysphania ambrosioides (L.) Mosykin & Clemants *	Mexican Tea	РН	FAC	Chenopodiaceae	U	8



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Dysphania botrys (L.) Mosykin & Clemants *	Jerusalem Oak, Feather Geranium	AH	FACU	Chenopodiaceae	R	4
Dysphania multifida (L.) Mosyakin & Clemants *	Cut-leaf Goosefoot	AH		Chenopodiaceae	R	1
Eastwoodia elegans Brandegee	Yellow Mock Aster	S		Asteraceae	R	0
Echinochloa colona (L.) Link *	Awnless Barnyard Grass	AG	FAC	Poaceae	R	2
<i>Echinochloa crus-galli</i> (Kunth) Schultes var. <i>crus-galli</i> *	Barnyard Grass	AG	FACW	Poaceae	U	10
Echinochloa crus-pavonis (L.) P. Beauv. var. crus- pavonis *	Barnyard Grass	AG/B G	FACW	Poaceae	R	2
Echinodorus berteroi (Spreng.) Fassett	Bur Head	AG	OBL	Alismataceae	R	2
Eclipta prostrata (L.) L.	False Daisy	AH	FAC	Asteraceae	U	8
<i>Ehrendorferia chrysantha</i> (Hooker & Arnott) Rylander	Golden Eardrops	РН		Fumariaceae	С	54
Ehrendorferia ochroleuca (Engelm.) Fukuhara	White Eardrops, Yellow Dicentra	РН		Fumariaceae	R	2
Ehrharta calycina Sm. *	Perennial Veldtgrass	PG		Poaceae	R	3
Ehrharta erecta Lam. *	Erect Veldtgrass	PG		Poaceae	R	2
Elatine brachysperma Gray	Slender Waterwort	AH	OBL	Elatinaceae	R	1
Elatine californica Gray	California Waterwort	AH	OBL	Elatinaceae	R	1
Elatine chilensis Gray	Chilean Waterwort	AH/P H	OBL	Elatinaceae	R	1
Eleocharis acicularis (L.) Roemer & Schultes var. acicularis	Slender Spikerush	PG	OBL	Cyperaceae	U	6
Eleocharis bella (Piper) Svenson	Bella Spikerush	PG	FACW	Cyperaceae	R	1



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Eleocharis bernardina Munz & Johnston	Few-flowered Clubrush	PG	FACW	Cyperaceae	R	3
Eleocharis coloradoensis (Britton) Gilly	Dwarf spikerush	PG	OBL	Cyperaceae	R	2
Eleocharis geniculata (L.) Roem. & Schult.	Bent spikerush	AGH	OBL	Cyperaceae	R	1
Eleocharis macrostachya Britt.	Common Spikerush	PG	OBL	Cyperaceae	S	17
Eleocharis montevidensis Kunth	Sand Spikerush	PG	FACW	Cyperaceae	R	5
Eleocharis obtusa (Willd.) Schult.	Broad spiked spikerush	AH	OBL	Cyperaceae	R	1
Eleocharis palustris (L.) Roem. & Schult.	Common Spikerush	PH	OBL	Cyperaceae	R	2
Eleocharis parishii Britt.	Parish Spikerush	PG	FACW	Cyperaceae	0	25
<i>Eleocharis parvula</i> (Roem. & Schult.) Link ex Bluff, Nees & Schauer	Dwarf Spikerush	PG	OBL	Cyperaceae	R, 4.3	1
Eleocharis quinqueflora (Hartmann) O. Schwarz	Fewflower Spikerush	PG	OBL	Cyperaceae	R	1
Eleocharis radicans (Poir.) Kunth	Creeping Spikerush	PG	OBL	Cyperaceae	R	1
Eleocharis rostellata (Torr.) Torr.	Beaked Spikerush	PG	OBL	Cyperaceae	R	2
Eleocharis suksdorfiana Beauv.	Suksdorf's Spikerush	PG	OBL	Cyperaceae	R	2
<i>Eleusine coracana</i> ssp. <i>africana</i> (Kennedy- O'Bryne) Hilu & de Wet *	African Finger Millet	AG		Poaceae	R	1
Eleusine indica (L.) Gaertn. *	India Goosegrass	AG	UPL	Poaceae	R	1
Elodea canadensis Rich.	Common Waterweed	PG	OBL	Hydrocharitaceae	R	3
Elymus caput-medusae L. *	Medusa Head	PG		Poaceae	R	8



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Elymus cinereus Scribn. & Merr.	Great Basin Wildrye	PG		Poaceae	R	2
Elymus condensatus J. Presl	Giant Wildrye	PG	FACU	Poaceae	С	145
Elymus elymoides var. brevifolius (J. G. Sm.) Dorn	Squirrel tail grass	PG	FACU	Poaceae	R	2
Elymus elymoides (Raf.) Swezey var. elymoides	Bottlebrush Squirreltail	PG	FACU	Poaceae	С	142
Elymus glaucus Buckl. ssp. glaucus	Blue or Woodland Wildrye	PG	FACU	Poaceae	С	58
Elymus glaucus ssp. jepsonii (Burtt Davy) Gould	Jepson Blue or Woodland Wildrye	PG	FACU	Poaceae	R	5
Elymus Xgouldii J.P. Sm. & Columbus	Gould's Wildrye	PG	(FACU)	Poaceae	R	1
Elymus Xhansenii Scribn.	Hansen's Wildrye	PG	(FACU)	Poaceae	R	2
Elymus hispidus (Opiz) Melderis *	Intermediate Wheatgrass	PG		Poaceae	R	9
Elymus lanceolatus (Scribn. & J.G. Sm.) Gould ssp. lanceolatus	Northern Wheatgrass	PG	FAC	Poaceae	R	1
Elymus multisetus (J.G. Smith) Burtt Davy	Bottlebrush Squirreltail	PG		Poaceae	S	15
Elymus ponticus (Podp.) N. Snow *	Tall Wheatgrass	PG		Poaceae	R	4
Elymus repens (L.) Gould *	Quackgrass	PG	FAC	Poaceae	R	1
Elymus stebbinsii (Scribner & J.G. Smith) Gould	Stebbins' Wildrye	PG		Poaceae	R	5
Elymus trachycaulus ssp. subsecundus (Link) Gould	Slender Wheatgrass	PG		Poaceae	R	1
Elymus trachycaulus (Link) Shinn. ssp. trachycaulus	Slender Wheatgrass	PG	FACU	Poaceae	R	9
Elymus triticoides Buckl. ssp. triticoides	Creeping Wildrye	PG	FAC	Poaceae	С	45



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Elytrigia elongata (Host) Nevski *	Tall Wheatgrass	AG		Poaceae	R	2
Elytrigia intermedia (Host) Nevski ssp. intermedia *	Intermediate Wheatgrass	PG		Poaceae	R	1
Emex spinosa (L.) Campdera *	Devil's Thorn, Spiny Emex	AH		Polygonaceae	U	6
Emmenanthe penduliflora Bentham var. penduliflora	Whispering Bells	AH		Hydrophyllaceae	С	136
Emmenanthe penduliflora var. rosea Brand	Rose Whispering Bells	AH	-	Hydrophyllaceae	R	4
Encelia actoni Elmer	Acton Brittlebush	S		Asteraceae	О	44
Encelia californica Nuttall	California Bush Sunflower	S		Asteraceae	0	30
Encelia farinosa Torrey & A. Gray	Brittlebush, Incienso	S		Asteraceae	R	6
Enemion occidentale (H. & A.) J.R. Drummond & Hutchinson	Western Meadow-rue or Rue-anenome	PH		Ranunculaceae	S	14
Ephedra californica S. Watson	California Desert Tea, Cañatillo	S		Ephedraceae	R	4
Ephedra nevadensis S. Watson	Nevada Ephedra or Mormon-tea	S		Ephedraceae	S	27
Ephedra viridis Coville	Green Ephedra or Mormon-tea	S		Ephedraceae	С	76
Epilobium brachycarpum C. Presl	Panicled Willow- herb	AH		Onagraceae	S	24
Epilobium campestre (Jeps.) Hoch & W.L. Wagner	Smooth Spike- primrose	AH	OBL	Onagraceae	R	4
Epilobium canum (Greene) P. H. Raven ssp. angustifolium (D. D. Keck) P. H. Raven	Hummingbird Trumpet	PH		Onagraceae	R	1
Epilobium canum (Greene) Raven ssp. canum	California Fuchsia	PH		Onagraceae	С	76
Epilobium canum ssp. latifolium (Hook.) Raven	Broad-leaved California Fuchsia	РН		Onagraceae	С	77



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Epilobium ciliatum Raf. ssp. ciliatum	Northern Willow- herb	AH	FACW	Onagraceae	С	42
<i>Epilobium ciliatum</i> ssp. <i>glandulosum</i> (Lehm.) P. Hoch & Raven	Sticky Northern Willow-herb	AH	FACW	Onagraceae	R	5
Epilobium densiflorum (Lindley) P. Hoch & Raven	Dense-flowered Spike-primrose	AH	FACW	Onagraceae	U	9
Epilobium foliosum (Torrey & A. Gray) Suksd.	Leafy Spike-primrose	AH		Onagraceae	R	6
Epilobium glaberrinum Barbey ssp. glaberrinum	Waxy Willow-herb	AH	FACW	Onagraceae	R	5
<i>Epilobium hallianum</i> Hausskn.	Gland Willow-herb	PH	FACW	Onagraceae	R	2
Epilobium minutum Lindley ex Lehm.	Chaparral Willowherb	AH	FACU	Onagraceae	R	1
Epilobium oregonense Hausskn.	Oregon Willowherb	AH	OBL	Onagraceae	R	1
Epilobium torreyi (S. Watson) P. Hoch & Raven [Bousduvalia stricta]	Brook Spike- primrose	AH	FACW	Onagraceae	R	1
Epipactis gigantea Hook.	Stream Orchid	РН	OBL	Orchidaceae	О	27
Equisetum arvense L.	Common or Field Horsetail	PF	FAC	Equisetaceae	U	14
Equisetum Xferrissii Clute	Ferris Horsetail	PF	FACW	Equisetaceae	R	2
<i>Equisetum hyemale</i> L. ssp. <i>affine</i> (Engelm.) Calder & R.L. Taylor	Common or Giant Scouring Rush	PF	FACW	Equisetaceae	U	21
Equisetum laevigatum A. Braun	Smooth Scouring- Rush	PF	FACW	Equisetaceae	S	22
<i>Equisetum telmateia</i> ssp. <i>braunii</i> (Milde) R.L. Hauke	Giant Horsetail	PF	FACW	Equisetaceae	U	8
Eragrostis barrelieri Daveau *	Lovegrass	AG		Poaceae	R	2
Eragrostis cilianensis (All.) Janchen *	Lovegrass	AG	FACU	Poaceae	R	2



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Eragrostis mexicana (Hornem.) Link ssp. mexicana	Mexican Lovegrass	AG	FACU	Poaceae	R	5
<i>Eragrostis mexicana</i> ssp. <i>virescens</i> (C. Presl) Koch & E. Sanchez	Orcutt Lovegrass	AG	FACU	Poaceae	R	3
<i>Eragrostis pectinacea</i> var. <i>miserrima</i> (Fourn.) Reeder	Spreading Tufted Lovegrass	AG	FAC	Poaceae	R	1
<i>Eragrostis pectinacea</i> (Michx.) Nees var. <i>pectinacea</i>	Tufted Lovegrass	AG	FAC	Poaceae	R	2
Eragrostis superba Peyr.					R	1
Eremalche exilis (A. Gray) E. Greene	White-flowered Mallow	AH		Malvaceae	R	1
Eremocarya micrantha (Torr.) Greene var. micrantha [Cryptantha m. var. m.]	Eremocarya	AH		Boraginaceae	U	15
Eremocarya lepida MacBr. [Cryptantha m. var. l.]	Mountain Red-root Eremocarya	AH		Boraginaceae	R	3
<i>Eremogone kingii</i> (S. Watson) Ikonn. var. <i>glabrescens</i> (S. Watson) Dorn	King's Smooth Sandwort	PH		Caryophyllaceae	R	3
<i>Eremogone macradenia</i> var. <i>arcuifolia</i> (Maguire) R.L. Hartm.& Rabeler	Mojave Sandwort	PH		Caryophyllaceae	0	29
Eremogone macradenia (S. Watson) Ikonn. var. macradenia	Desert Sandwort	PH		Caryophyllaceae	U	10
<i>Eremothera boothii</i> ssp. <i>decorticans</i> (Hooker & Arnott) W.L. Wagner & Hoch	Booth Shreading Primrose	AH		Onagraceae	С	56
<i>Eremothera boothii</i> ssp. <i>desertorum</i> (Munz) W.L. Wagner & Hoch	Desert Shredding Primrose	AH		Onagraceae	R	1
Eriastrum densifolium ssp. austromontanum (Craig) H. Mason	Mountain Woolly Star	PH		Polemoniaceae	С	45
<i>Eriastrum densifolium</i> ssp. <i>densifolium</i> (Benth.) H. Mason	Giant Eriastrum	PH		Polemoniaceae	U	9
<i>Eriastrum densifolium</i> ssp. <i>elongatum</i> (Benth.) H. Mason	Elongate Woolly Star	РН		Polemoniaceae	С	50
<i>Eriastrum densifolium</i> ssp. <i>mohavense</i> (Craig) H. Mason	Mojave Woolly Star	РН		Polemoniaceae	R	5



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Eriastrum eremicum (Jeps.) H. Mason ssp. eremicum	Woolly Star	AH		Polemoniaceae	R	1
Eriastrum filifolium (Nutt.) Woot. & Standl.	Narrowleaf Woolly Star	AH		Polemoniaceae	U	7
Eriastrum hooveri (Jepson) H. Mason	Hoover Woolly Star	AH		Polemoniaceae	R	2
Eriastrum pluriflorum (A.A. Heller) H. Mason ssp. pluriflorum	Woolly Star	AH		Polemoniaceae	U	11
Eriastrum sapphirinum ssp. brevibracteatum De Groot	Ambigous Short- bracted Sapphire Woolly Star	AH		Polemoniaceae	U	8
<i>Eriastrum sapphirinum</i> ssp. <i>dasyanthem</i> (Brand) H. Mason	Shaggy-flowered Saphire Woolly Star	AH		Polemoniaceae	S	13
Eriastrum sapphirinum (Eastwood) H. Mason ssp. sapphirinum	Sapphire Woolly Star	AH		Polemoniaceae	S	28
Eriastrum signatum D. Gowen	Moroon-spotted Woolly Star	AH		Polemoniaceae	С	48
Eriastrum sp. nova D. Gowen	new Woolly Star	AH		Polemoniaceae	R	6
Eriastrum sparsiflorum (Eastw.) H. Mason	Great Basin Woollystar	AH		Polemoniaceae	U, 4.3	7
Ericameria arborescens (A. Gray) E. Greene	Golden-fleece	S		Asteraceae	U	6
Ericameria cooperi (Gray) H.M. Hall var. cooperi	Cooper Goldenbush	S		Asteraceae	С	41
Ericameria cooperi X E. linearifolia	Hybrid Cooper Goldenbush	S	-	Asteraceae	U	6
Ericameria cuneata (Gray) McClatchie var. cuneata	Wedgeleaf Goldenbush	S		Asteraceae	U	16
<i>Ericameria cuneata</i> var. <i>spathulata</i> (A. Gray) H.M. Hall	Spatulate-leaved Goldenbush	S		Asteraceae	R	5
Ericameria ericoides (Less.) Jeps. ssp. ericoides	Heatherleaf Goldenbush	S		Asteraceae	U	6
Ericameria linearifolia (DC.) Urb. & Wussow	Interior Goldenbush, Stenotopsis	S		Asteraceae	С	128



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
<i>Ericameria nauseosa</i> (Pursh) G.L. Nesom & G.I. Baird	Rubber Rabbitbrush	S		Asteraceae	С	75
<i>Ericameria nauseosa</i> var. <i>bernardina</i> (H.M. Hall) G.L. Nesom & G.I. Baird	San Bernardino Rubber Rabbitbrush	S		Asteraceae	U	8
<i>Ericameria nauseosa</i> var. <i>ceruminosa</i> (Durand & Hilg.) G.L. Nesom & G.I. Baird	Desert Rabbitbrush	S		Asteraceae	R	1
<i>Ericameria nauseosa</i> var. <i>hololeuca</i> (A.Gray) G.L. Nesom & G.I. Baird	White Rubber Rabbitbrush	S		Asteraceae	О	36
<i>Ericameria nauseosa</i> var. <i>mohavensis</i> (Greene) G.L. Nesom & G.I. Baird	Mojave Rubber Rabbitbrush	S		Asteraceae	С	90
<i>Ericameria nauseosa</i> var. <i>oreophila</i> (A. Nelson) G.L. Nesom & G.I. Baird	Common Rubber Rabbitbrush	S		Asteraceae	S	52
<i>Ericameria nauseosa</i> var. <i>speciosa</i> (Nutt.) G.L. Nesom & G.I. Baird	White-stemmed Rubber Rabbitbrush	S		Asteraceae	R	1
<i>Ericameria palmeri</i> var. <i>pachylepis</i> (H.M. Hall) Nesom	Goldenbush	S		Asteraceae	S	14
<i>Ericameria parryi</i> var. <i>aspera</i> (Greene) G.L. Nesom & G.I. Baird	Parry Rabbitbrush	S		Asteraceae	U	8
Ericameria pinifolia (Gray) H.M. Hall	Pine Goldenbush, Pinebush	S		Asteraceae	0	37
Ericameria teretifolia (Durand & Hilgard) Jeps.	Round-leaved Rabbitbrush	S		Asteraceae	R	5
Erigeron foliosus Nuttall var. foliosus	Slender Fleabane or Daisy	PH		Asteraceae	С	178
Erigeron karvinskianus DC. *	Santa Barbara Daisy	PH		Asteraceae	R	2
<i>Eriodictyon californicum</i> (Hooker & Arnott) Torrey	California Yerba Santa	S		Namaceae	R	1
Eriodictyon crassifolium Bentham var. crassifolium	Thickleaf Yerba Santa	S		Namaceae	С	125
Eriodictyon crassifolium var. nigrescens Brand	Thickleaf Yerba Santa	S		Namaceae	С	197
Eriodictyon traskiae ssp. smithii Munz	Smith's Yerba Santa	S		Namaceae	R	2


Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
<i>Eriodictyon trichocalyx</i> A.A. Heller var. <i>trichocalyx</i>	Yerba Santa	S		Namaceae	R	4
Eriogonum angulosum Benth.	Angle-stemmed Buckwheat	AH		Polygonaceae	С	41
Eriogonum arborescens Greene	Arborescent Buckwheat	S		Polygonaceae	R	2
Eriogonum baileyi S. Watson var. baileyi	Bailey's Buckwheat	AH		Polygonaceae	С	45
<i>Eriogonum baileyi</i> S. Watson var. <i>praebens</i> (Gand.) Reveal	Bailey's Woolly Buckwheat	AH		Polygonaceae	R, 4.3	3
Eriogonum brachyanthum Coville	Shortflower Wild Buckwheat	AH		Polygonaceae	U	8
Eriogonum cinereum Bentham	Ash or Gray Coast Buckwheat	S		Polygonaceae	R, 4.3	4
<i>Eriogonum cithariforme</i> var. <i>agninum</i> (E. Greene) Reveal	Santa Ynez Wild Buckwheat	AH		Polygonaceae	S	25
Eriogonum cithariforme S. Watson var. cithariforme	Cithara Buckwheat	AH		Polygonaceae	С	63
Eriogonum clavatum Small	Hoover Little Trumpet	AH		Polygonaceae	S	13
Eriogonum covilleanum Eastw.	Coville Buckwheat	AH		Polygonaceae	U	15
Eriogonum crocatum Davidson	Conejo or Saffron Buckwheat	S		Polygonaceae	R, SR, 1B.2	1
Eriogonum davidsonii E. Green	Davidson Buckwheat	AH		Polygonaceae	С	37
Eriogonum deflexum var. baratum (Elmer) Reveal	Flat-crown Buckwheat	AH		Polygonaceae	S	12
Eriogonum elegans Greene	Elegant Buckwheat	AH		Polygonaceae	R, 4.3	8
Eriogonum elongatum Bentham var. elongatum	Long-stemmed Buckwheat	PH		Polygonaceae	С	105
Eriogonum fasciculatum Bentham	California Buckwheat	S		Polygonaceae	С	157



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Eriogonum fasciculatum Bentham var. fasciculatum	California Buckwheat	S	-	Polygonaceae	U	24
<i>Eriogonum fasciculatum</i> var. <i>foliolosum</i> (Nuttall) Abrams	Leafy California Buckwheat	S		Polygonaceae	С	236
Eriogonum fasciculatum var. polifolium (A. DC.) Torrey & A. Gray	Hoary California Buckwheat	S		Polygonaceae	С	115
Eriogonum gracile Bentham var. gracile	Slender Woolly Buckwheat	AH		Polygonaceae	С	46
Eriogonum gracile Bentham var. incultum Reveal	Slender Woolly Buckwheat	AH		Polygonaceae	R	1
Eriogonum gracillimum S. Watson	Slender Buckwheat	AH		Polygonaceae	U	9
Eriogonum heermannii Durand & Hilg. var. heermannii	Heerman Buckwheat	S		Polygonaceae	U	11
Eriogonum hirtiflorum S. Watson	Hairy-flowered Buckwheat	AH		Polygonaceae	U	8
Eriogonum inerme var. hispidulum Goodman	Goodman's Unarmed Wild Buckwheat	AH		Polygonaceae	R	2
Eriogonum inerme (S. Watson) Jeps. var. imerme	Unarmed Buckwheat	AH		Polygonaceae	U	14
Eriogonum inflatum Torr. & Frém.	Desert Trumpet	PH		Polygonaceae	R	4
<i>Eriogonum kennedyi</i> var. <i>alpigenum</i> (Munz & Johnston) Munz & Johnston	Alpine Kennedy Buckwheat	PH		Polygonaceae	R, 1B.3	9
Eriogonum kennedyi var. austromontanum Munz & I.M. Johnston	Southern Mountain Buckwheat	PH		Polygonaceae	U, FT, 1B.2	16
Eriogonum kennedyi Porter ex S. Watson var. kennedyi	Kennedy Buckwheat	PH		Polygonaceae	S	24
Eriogonum maculatum A.A. Heller	Buckwheat	AH		Polygonaceae	U	7
Eriogonum mohavense S. Watson	Mojave Buckwheat	PH		Polygonaceae	U	8
Eriogonum molestum Greene	Pine Buckwheat	AH		Polygonaceae	U	10



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Eriogonum nudum Benth. var. nudum	Naked Buckwheat	PH		Polygonaceae	R	1
Eriogonum nudum var. pauciflorum S. Watson	Tibinagua	PH		Polygonaceae	О	135
Eriogonum nudum var. pubiflorum Benth.	Hairy-flowered Barestem Buckwheat	PH		Polygonaceae	U	11
Eriogonum nudum var. westonii (S. Stokes) J.T. Howell	Weston Barestem Buckwheat	РН		Polygonaceae	U	18
Eriogonum ordii S. Watson	Ord Buckwheat	AH		Polygonaceae	S	22
Eriogonum ovalifolium Nuttall var. ovalifolium	Cushion Wild Buckwheat	S		Polygonaceae	R	1
Eriogonum parishii S. Watson	Parish's Wild Buckwheat	AH		Polygonaceae	R	1
Eriogonum parvifolium Smith var. parvifolium	Dune Buckwheat	S		Polygonaceae	О	20
<i>Eriogonum parvifolium</i> var. <i>paynei</i> (Wolf ex Munz) Reveal	Payne Dune Buckwheat	S		Polygonaceae	R	3
Eriogonum plumatella Durand & Hilg.	Yucca Wild Buckwheat	S	-	Polygonaceae	R	2
Eriogonum pusillum T. & G.	Puny Buckwheat	AH		Polygonaceae	R	6
Eriogonum roseum Durand & Hilg.	Rose Buckwheat	AH		Polygonaceae	С	47
Eriogonum saxatile S. Watson	Rock Buckwheat	AH		Polygonaceae	S	18
<i>Eriogonum spergulinum</i> var. <i>reddingianum</i> (Jones) J.T. Howell	Spurry Buckwheat	РН		Polygonaceae	U	9
Eriogonum spergulinum A. Gray var. spergulinum	Spurry Buckwheat	AH		Polygonaceae	R	1
Eriogonum thurberi Torrey	Thurber's Wild Buckwheat	AH		Polygonaceae	R	5
Eriogonum trichopes Torr.	Little Desert Trumpet	AH		Polygonaceae	R	2



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<i>Eriogonum umbellatum</i> var. <i>bahiiforme</i> (Torrey & A. Gray) Jepson	Sulphur Buckwheat	S		Polygonaceae	R, 4.2	5
Eriogonum umbellatum var. canifolium Reveal	Sulphur Buckwheat	S		Polygonaceae	R	3
Eriogonum umbellatum var. furcosum Reveal	Sulphur Buckwheat	S		Polygonaceae	R	1
Eriogonum umbellatum var. munzii Reveal	Munz Yellow Buckwheat	S		Polygonaceae	С	51
Eriogonum umbellatum var. subaridum S. Stokes	Sulphur Buckwheat	S		Polygonaceae	R	3
Eriogonum vimineum Benth.	Wicker Buckwheat	AH		Polygonaceae	U	8
Eriogonum viridescens A. Heller	Green Buckwheat	AH		Polygonaceae	R	4
Eriogonum wrightii var. nodosum (Small) Reveal	Wright's Bastardsage	S		Polygonaceae	R	1
Eriogonum wrightii var. subscaposum S. Watson	Short-stemmed Bastardsage	S		Polygonaceae	О	103
<i>Eriogonum wrightii</i> var. <i>trachygonum</i> (Benth.) Jeps.	Rough-node Bastardsage	S		Polygonaceae	R	4
Eriogonum wrightii Benth. var. wrightii	Wright's Bastardsage	S		Polygonaceae	R	4
<i>Eriophyllum ambiguum</i> var. <i>paleaceum</i> (Brandegee) Ferris	Pale Ambiguous Woolly Daisy	AH		Asteraceae	R	1
Eriophyllum confertiflorum (DC.) A. Gray var. confertiflorum	Golden Yarrow	РН		Asteraceae	С	224
<i>Eriophyllum confertiflorum</i> var. <i>tanacetiflorum</i> (Greene) Jeps.	Tansyleaf Golden Yarrow	PH	-	Asteraceae	R, 4.3	52
Eriophyllum jepsonii Greene	Jepson Woolly Yarrow	AH	-	Asteraceae	R, 4.3	2
Eriophyllum pringlei A. Gray	Pringle Golden Yarrow	AH		Asteraceae	U	12
Eriophyllum wallacei (A. Gray) A. Gray	Wallace's woolly daisy	AH		Asteraceae	R	11



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Erodium botrys (Cav.) Bertol. *	Broadleaf Filaree	AH	FACU	Geraniaceae	U	11
Erodium brachycarpum (Godron) Thell. *	Short-beaked Filaree	AH		Geraniaceae	R	3
Erodium cicutarium (L.) L'Her. *	Redstem Filaree	AH		Geraniaceae	С	227
Erodium moschatum (Burm. F.) L'Her. var. moschatum *	Whitestem Filaree	AH		Geraniaceae	S	12
Eryngium armatum (S. Watson) J.M. Coult. & Rose	Coastal Button-celery	PH		Apiaceae	R	1
<i>Erysimum capitatum</i> (Dougl.) E. Greene var. <i>capitatum</i>	Western Wallflower	AH/B H		Brassicaceae	С	122
Erysimum suffrutescens (Abrams) Rossbach	Island Wallflower	AH/B H		Brassicaceae	R, 4.2	1
<i>Erythranthe androsacea</i> (Greene) N.S. Fraga [Mimulus androsaceus Greene]	Naked Sepal Monkeyflower	AH		Phrymaceae	S	11
<i>Erythranthe</i> [Mimulus] breweri (Greene) G.L. Nesom & N.S. Fraga	Brewer Monkeyflower	AH		Phrymaceae	R	3
<i>Erythranthe</i> [<i>Mimulus</i>] <i>cardinalis</i> (Douglas ex Benth.) Spach	Scarlet Monkeyflower	РН	FACW	Phrymaceae	S	34
Erythranthe floribunda [Mimulus floribundus]Lindl.	Many-flowered Monkeyflower	AH	OBL	Phrymaceae	S	21
Erythranthe [Mimulus] grandis (Greene) Nesom	Grand Streamside Monkeyflower	PH	OBL	Phrymaceae	R	1
<i>Erythranthe guttata [Mimulus guttatus]</i> (Fischer ex DC.) Nesom [Mimulus guttatus DC.]	Common Streamside Monkeyflower	A/PH	OBL	Phrymaceae	С	93
Erythranthe [Mimulus] latidens (A. Gray) Greene	Broad-toothed Monkeyflower	AH	OBL	Phrymaceae	R	3
Erythranthe moschata (Lindl.) G.L. Nesom [Erythranthe moniliformis (Greene) G.L. Nesom]	Musk Monkeyflower	PH	FACW	Phrymaceae	U	7
Erythranthe nasuta [Mimulus nasutus] (Greene) Nesom	Lopsided-fruit Monkeyflower	AH	OBL	Phrymaceae	R	1
Erythranthe [Mimulus] palmeri (A. Gray) N.S. Fraga	Palmer Monkeyflower	AH		Phrymaceae	R	3



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
<i>Erythranthe</i> [<i>Mimulus</i>] <i>parishii</i> (Greene) G.L. Nesom & N.S. Fraga	Parish's Monkeyflower	AH	OBL	Phrymaceae	R	6
<i>Erythranthe</i> [<i>Mimulus</i>] <i>primuloides</i> (Benth.) G.L. Nesom & N.S. Fraga	Primrose Monkeyflower	PH	FACW	Phrymaceae	U	7
<i>Erythranthe rubella [Mimulus rubellus]</i> (A. Gray) N.S. Fraga	Little Redstem Monkeyflower	AH	FAC	Phrymaceae	R	1
<i>Erythranthe [Mimulus] suksdorfii</i> (A. Gray) N.S. Fraga	Suksdorf Monkeyflower	AH	FACU	Phrymaceae	R	5
Erythranthe [Mimulus] tilingii (Regel) Nesom	Tiling's Monkeyflower	PH	OBL	Phrymaceae	R	2
Eschscholzia caespitosa Bentham ssp. caespitosa	Tufted Poppy	BH		Papaveraceae	S	25
Eschscholzia californica Chamisso in C.G.D. ssp. californica	California Poppy	AH		Papaveraceae	С	66
Eschscholzia hypecoides Bentham	Gypsum Poppy	AH		Papaveraceae	R, 4.3	1
Eschscholzia lemmonii Greene ssp. kernensis (Munz) C. Clark	Tejon Poppy	AH		Papaveraceae	R, 1B.1	2
Eschscholzia minutiflora S. Watson	Tiny-flowered Poppy	AH		Papaveraceae	U	10
Eucalyptus camaldulensis Dehnhardt *	River Red Gum	Т	FAC	Myrtaceae	R	7
Eucalyptus globulus Labill. var. globulus *	Tasmanian Blue Gum	Т		Myrtaceae	R	1
Eucalyptus maculata E. Minchen [Corymbia maculata] *	Spotted Gum	Т		Myrtaceae	R	1
Eucalyptus rudis Sm. *	Western australian floodedgum	Т		Myrtaceae	R	4
Eucalyptus sideroxylon A. Cunn. ex Woolls *	Red Ironbark	Т		Myrtaceae	R	1
Eucrypta chrysanthemifolia (Benth.) Greene var. chrysanthemifolia	Eucrypta	AH		Hydrophyllaceae	С	56
Eulobus californicus Torrey & A. Gray	Mustard Primrose	AH		Onagraceae	0	93



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Euphorbia lathyris L. *	Caper or Gopher Spurge, Gopher Plant	AH		Euphorbiaceae	R	1
Euphorbia lurida Engelm. [Euphorbia palmeri S. Watson var. palmeri]	Wood Spurge	AH		Euphorbiaceae	U	6
Euphorbia peplus L. *	Petty Spurge	AH		Euphorbiaceae	R	4
Euphorbia spathulata Lam.	Warty or Spoonleaf Spurge	AH	FAC	Euphorbiaceae	U	7
Euphorbia terracina L. var. terracina *	False Caper	PH		Euphorbiaceae	R	3
Euthamia occidentalis Nuttall	Western Goldenrod	PH	FACW	Asteraceae	0	34
Extriplex californica (Moq.) E.H. Zacharias	California Saltbush	S	FAC	Chenopodiaceae	R	3
Festuca arundinacea Schreber *	Tall or Alta Fescue	PG	(FAC)	Poaceae	U	9
Festuca perennis (L.) Columbus & J.P. Sm. [Lolium perenne, Lolium multiflorum] *	Italian Rye Grass	PG	FAC	Poaceae	R	16
Festuca pratensis Huds. *	Meadow Fescue	PG	(FACU)	Poaceae	R	3
Festuca rubra L.	Red Fescue	PG	FAC	Poaceae	R	1
Festuca temulenta (L.) Columbus & J.P. Sm. [Lolium temulentum L.] *	Darnel	PG	(FAC)	Poaceae	R	1
Festuca trachyphylla (Hack.) Krajina *	Sheep Fescue	PG		Poaceae	R	1
Ficus altissima Blume *	Lofty Fig	Т		Moraceae	R	2
Ficus carica L. *	Common Edible Fig	Т	FACU	Moraceae	R	1
Ficus erecta Thunb. *	Japanese Fig	S/T		Moraceae	R	1
Ficus microcarpa L.f. *	Chinese Banyan	Т		Moraceae	R	2



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Ficus rubiginosa Desf ex Venten. var. australis or pubescens *	Rustyleaf Fig	Т	(FACW)	Moraceae	R	2
Ficus thonningii Blume *	Strangler Fig	Т		Moraceae	R	1
Fimbristylis thermalis S. Watson	Hot-Springs Fimbristylis	PG	OBL	Cyperaceae	R, 2.2	1
Foeniculum vulgare P. Mill. *	Sweet Fennel	PH	(FACU)	Apiaceae	S	18
Forestiera pubescens Nutt.	Desert Olive, Dwarf Swamp Privet	S	FACU	Oleaceae	U	10
Fragaria vesca L.	Wood Strawberry	PH	UPL	Rosaceae	R	1
Frangula californica (Eschsch.) A. Gray	California Coffeeberry	S		Rhamnaceae	S	12
Frangula californica (Eschsch.) A. Gray ssp. californica	California Coffeeberry	S		Rhamnaceae	S	52
Frangula californica ssp. cuspidata (Greene) Kartesz & Gandhi	Cuspid California Coffeeberry	S		Rhamnaceae	S	12
Frangula californica ssp. tomentella (Benth.) Kartesz & Gandhi	Hoary Coffeeberry	S		Rhamnaceae	С	34
Frankenia salina (Molina) I.M. Johnston	Alkali Heath	PH	FACW	Frankeniaceae	U	8
Frasera neglecta H.M. Hall	Pine Green Gentian	PH		Gentianaceae	R, 4.3	13
Fraxinus dipetala Hooker & Arnott	California Flowering Ash	Т		Oleaceae	С	81
Fraxinus latifolia Bentham	Oregon Ash	S	FACW	Oleaceae	R	2
Fraxinus pennsylvanica Marsh. *	Green Ash	Т		Oleaceae	R	1
Fraxinus uhdei (Wenz.) Lingelsh. *	Shamel Ash	Т	(FACW)	Oleaceae	R	2
Fraxinus velutina Torrey	Velvet or Arizona Ash	Т	FAC	Oleaceae	R	12



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Fremontodendron californicum (Torrey) Coville ssp. californicum	California Flannel Bush	S		Malvaceae	U	36
<i>Fritillaria agrestis</i> E. Greene	Stink Bells	PH	FAC	Liliaceae	R, 4.2	5
Fritillaria biflora Lindley var. biflora	Chocolate Lily, Mission Bells	PH		Liliaceae	R	3
Fritillaria ojaiensis A. Davidson	Ojai Fritillary	PH		Liliaceae	S, 1B.2	17
Fritillaria pinetorum A. Davidson	Pine Fritillary	PH		Liliaceae	U, 4.3	10
<i>Funastrum cynanchoides</i> var. <i>hartwegii</i> (Vail) Krings	Climbing Milkweed	PV	FACU	Apocynaceae	R	1
Galium andrewsii A. Gray ssp. andrewsii	Pine Mat, Phlox- leaved Bedstraw	РН		Rubiaceae	U	52
<i>Galium andrewsii</i> ssp. <i>intermedium</i> Dempster & Stebb.	Intermediate Pine Mat, Phlox-leaved Bedstraw	РН		Rubiaceae	С	46
Galium angustifolium Nuttall ssp. angustifolium	Chaparral or Narrow- leaved Bedstraw	S		Rubiaceae	С	155
Galium aparine L.	Goose Grass, Catchseed Bedstraw, Cleavers	AH	FACU	Rubiaceae	S	41
Galium bifolium S. Watson	Low Mountain Bedstraw	AH		Rubiaceae	R	4
Galium bolanderi A. Gray	Bolander Bedstraw	PH		Rubiaceae	R	2
<i>Galium californicum</i> ssp. <i>flaccidum</i> (E. Greene) Dempster & Stebb.	California Bedstraw	PH		Rubiaceae	R	4
<i>Galium cliftonsmithii</i> (Dempster) Dempster & Stebb.	Santa Barbara Bedstraw	PH		Rubiaceae	R, 4.3	1
Galium hallii Munz & I.M. Johnston	Nodding Bedstraw	PH		Rubiaceae	R	16
Galium jepsonii Hilend & J.T. Howell	Jepson's Bedstraw	PH		Rubiaceae	R	4
Galium johnstonii Dempster & Stebbins	Johnston's Bedstraw	PH		Rubiaceae	R	1



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Galium nuttallii A. Gray ssp. nuttallii	San Diego or Climbing Bedstraw	S	-	Rubiaceae	R	7
Galium porrigens Dempster var. porrigens	Climbing Bedstraw	PV		Rubiaceae	S	19
<i>Galium porrigens</i> Dempster var. <i>tenue</i> (Dempster) Dempster	Graceful Bedstraw	PV		Rubiaceae	R	2
Galium trifidum var. pacificum Wiegand	Coastal Bedstraw	PH	FACW	Rubiaceae	R	1
Galium triflorum Michaux	Sweet-scented Bedstraw	PH	FACU	Rubiaceae	R	2
Gamochaeta pensylvanica (Willd.) Cabrera *	Eastern Gamochaeta	AH		Asteraceae	R	2
Garrya elliptica Lindley	Silk-tassel Bush	S		Garryaceae	R	1
Garrya flavescens S. Watson ssp. flavescens	Silk-tassel Bush	S		Garryaceae	О	44
Garrya flavescens ssp. pallida (Eastwood) Dahling	Pallid Silk-tassel Bush	S		Garryaceae	S	12
Garrya veatchii Kellogg	Veatch's Silk-tassel Bush	S		Garryaceae	С	43
Gastridium phleoides (Nees & Meyen) C.E. Hubb. [G. ventricosum] *	Nit Grass	AG		Poaceae	R	2
Gayophytum diffusum ssp. parviflorum H. Lewis & J. Szweykowski	Diffuse Gayophytum	AH		Onagraceae	С	45
Gayophytum heterozygum H. Lewis & J. Szweykowski	Hybrid Gayophytum	AH		Onagraceae	R	5
Gayophytum humile A.L. Juss.	Low Gayophytum	AH	FAC	Onagraceae	R	5
Gayophytum oligospermum H. Lewis & J. Szweykowski	Southern California Mountain Gayophytum	AH		Onagraceae	R	2
Gayophytum racemosum Torrey & A. Gray	Black-foot Gayophytum	AH		Onagraceae	R	3
Gazania linearis (Thunb.) Druce *	Gazania	РН		Asteraceae	R	4



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Genista monspessulana (L.) L. Johnson *	French Broom	S	-	Fabaceae	R	2
Geranium californicum G. Jones & F. Jones	California Geranium	PH	FAC	Geraniaceae	R	3
Geranium carolinianum L.	Cransebill, Carolina Geranium	AH		Geraniaceae	R	2
Geranium dissectum L. *	Dissected Geranium	AH		Geraniaceae	R	4
Geranium incanum Burm. f. *	Carpet Geranium	AH		Geraniaceae	R	1
Geranium molle L. *	Annual Cranesbill	AH		Geraniaceae	R	5
Geranium rotundifolium L. *	Rotund Geranium	AH		Geraniaceae	R	1
Geranium viscosissimum Fischer & C. Meyer	Sticky Cranesbill	AH	FAC	Geraniaceae	R	1
Gilia achilleifolia Benth. ssp. achilleifolia	California or Yarrow- leaved Gilia	AH		Polemoniaceae	0	24
Gilia achilleifolia ssp. multicaulis (Benth.) V. & A. Grant	Many-stemmed California Gilia	AH		Polemoniaceae	U	14
Gilia aliquanta A. D. Grant & V. E. Grant ssp. aliquanta	Puff-calyx Gilia	AH		Polemoniaceae	U	19
<i>Gilia aliquanta</i> ssp. <i>breviloba</i> A. D. Grant & V. E. Grant	Short-lobe Puff-calyx Gilia	AH		Polemoniaceae	R	9
Gilia angelensis V. Grant	Angel Gilia	AH		Polemoniaceae	S	25
<i>Gilia austro-occidentalis</i> (A.D. & V.E. Grant) A.D. & V.E.Grant	Southwestern Gilia	AH	-	Polemoniaceae	R	2
Gilia brecciarum M.E. Jones ssp. brecciarum	Breccia Gilia	AH		Polemoniaceae	С	43
<i>Gilia brecciarum</i> ssp. <i>neglecta</i> A.D. Grant & V.E. Grant	Neglected Breccia Gilia	AH		Polemoniaceae	U	9
Gilia cana (M.E. Jones) A. Heller ssp. cana	Showy Gilia	AH		Polemoniaceae	R	1



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<i>Gilia capitata</i> ssp. <i>abrotanifolia</i> (E. Greene) V. Grant	Blue Field Gilia	AH		Polemoniaceae	С	77
Gilia capitata Sims ssp. capitata	Blue Field Gilia	AH	-	Polemoniaceae	S	20
Gilia capitata ssp. staminea (Greene) V.E. Grant	Bluehead Gilia	AH	-	Polemoniaceae	R	1
Gilia clivorum (Jeps.) V. Grant	Purplespot Gilia	AH		Polemoniaceae	R	5
<i>Gilia diegensis</i> (Munz) A.D. Grant & V.E. Grant	Coastal Gilia	AH		Polemoniaceae	R	6
Gilia interior (Mason & A. Grant) A. Grant	Slender-flowered Gilia	AH		Polemoniaceae	R, 4.3	4
Gilia jacens A. Grant & V. Grant	Purple-flowered Breccia Gilia	AH		Polemoniaceae	U	8
Gilia latiflora ssp. cuyamensis A. & V. Grant	Cuyama Gilia	AH		Polemoniaceae	U, 4.3	8
Gilia latiflora ssp. davyi (Milliken) A. & V. Grant	Davy Broad-flowered Gilia	AH		Polemoniaceae	S	15
<i>Gilia latiflora</i> ssp. <i>elongata</i> A.D. Grant & V.E. Grant	Elongated Broad- flowered Gilia	AH		Polemoniaceae	R	1
Gilia latiflora (Gray) Gray ssp. latiflora	Broad-flowered Gilia	AH		Polemoniaceae	S	17
Gilia leptantha ssp. pinetorum A. & V. Grant	Gabriel Trumpet	AH		Polemoniaceae	S	11
Gilia leptantha ssp. purpusii	Purpus Pine Gilia	AH		Polemoniaceae	R	1
<i>Gilia leptantha</i> Parish ssp. <i>transversa</i> A. D. Grant & V. E. Grant	Fine Flower Gilia	AH		Polemoniaceae	R	5
Gilia lutescens Steud.		AH		Polemoniaceae	R	1
Gilia malior A.G. Day & V.E. Grant	Scrub Gilia	AH		Polemoniaceae	R	2
Gilia minor A.D. Grant & V.E. Grant	Little Gilia	AH		Polemoniaceae	R	3



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Gilia modocensis Eastwood	Modoc Gilia	AH		Polemoniaceae	R	5
Gilia ochroleuca ssp. bizonata A. & V. Grant	Desert Gilia	AH		Polemoniaceae	С	66
Gilia ochroleuca ssp. exilis (Gray) A.& V. Grant	Volcanic Gilia	AH		Polemoniaceae	U	8
<i>Gilia ochroleuca</i> ssp. <i>lanosa</i> Hrusa	Woollystem Volcanic Gilia	AH		Polemoniaceae	S	12
Gilia ochroleuca M.E. Jones ssp. ochroleuca	Volcanic Gilia	AH		Polemoniaceae	R	4
<i>Gilia ochroleuca</i> ssp. <i>vivida</i> (A. & V. Grant) A. & V. Grant	Vivid Volcanic Gilia	AH		Polemoniaceae	R	3
Gilia sinuata Benth.	Sinuate Gilia	AH		Polemoniaceae	U	7
Gilia tenuiflora Benth. ssp. tenuiflora	Greater Yellowthroat Gilia	AH		Polemoniaceae	R	2
<i>Gilia transmontana</i> (H. Mason & A. Grant) A. & V. Grant	Desert Gilia	AH		Polemoniaceae	R	1
<i>Gilia tricolor</i> ssp. <i>diffusa</i> (Congdon) H. Mason & A.D. Grant	Birds-eye or Tricolor Gilia	AH		Polemoniaceae	R	1
Githopsis diffusa A. Gray ssp. diffusa	Southern Bluecup	AH	FAC	Campanulaceae	R	2
Githopsis diffusa ssp. robusta Morin	San Gabriel Bluecup	AH		Campanulaceae	R	1
Glebionis coronaria (L.) Spach *	Garland Chrysanthemum	PH		Asteraceae	R	2
Glechoma hederacea L. *	Ground Ivy	PH	FACU	Lamiaceae	R	1
Glycyrrhiza lepidota (Nutt.) Pursh	American Licorice	PH	FAC	Fabaceae	U	23
Gnaphalium palustre Nuttall	Lowland Cudweed	AH	FACW	Asteraceae	S	53
Grayia spinosa (Hook.) Moq.	Hop-Sage	S		Chenopodiaceae	R	2



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Greenocharis circumsissa (Hook. & Arn.) Ryd. var. circumsissa [Cryptantha c. var. c.]	Greenocharis	AH		Boraginaceae	S	34
<i>Grindelia camporum</i> var. <i>bracteosa</i> (J.T. Howell) M.A. Lane	Bracted Gumplant	S	FACW	Asteraceae	R	2
Grindelia camporum E. Greene var. camporum	Great Valley Gumplant	S	FACW	Asteraceae	R	5
Grindelia hirsutula Hook. & Arn. var. hirsutula	Hirsute Gumplant	S/PH	FACW	Asteraceae	U	6
Gutierrezia californica (DC.) Torrey & A. Gray	California Matchweed, Snakeweed	S		Asteraceae	S	21
Gutierrezia microcephala (DC.) A. Gray	Sticky Snakeweed	S		Asteraceae	R	6
Gutierrezia sarothrae (Pursh) Britton & Rusby	Broom Snakeweed, Matchweed	S		Asteraceae	U	16
Hainardia cylindrica (L.) Columbus & J.P. Sm. *	Barbgrass	AG	FACW	Poaceae	R	1
Harpogonella palmeri A. Gray	Palmer's Grapplinghook	AH		Boraginaceae	U, 4.2	20
Hazardia squarrosa (Hook. & Arn.) Greene	Sawtooth Goldenbush	S		Asteraceae	О	15
Hazardia squarrosa var. grindelioides (DC.) W. Clark	Sawtooth Goldenbush	S		Asteraceae	О	27
Hazardia squarrosa var. obtusa (Greene) Jepson	Prickly Sawtooth Goldenbush	S		Asteraceae	0	41
Hazardia squarrosa (Hooker & Arnold) E. Greene var. squarrosa	Sawtooth Goldenbush	S		Asteraceae	R	6
Hebe speciosa (R. Cunn. ex A. Cunn.) Andersen *	Showy Hebe	S		Scrophulariaceae	R	1
Hedera canariensis Willd. *	Algerian Ivy	PV		Araliaceae	R	1
Hedera helix L. *	English Ivy	PV	FACU	Araliaceae	R	2
Hedychium coronarium J. Koenig*	White Ginger Lily	PH		Zingiberaceae	R	1



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Hedychium garderianum Roscoe*	Kahili Ginger	PH	-	Zingiberaceae	R	1
Hedypnois rhagadioloides (L.) F.W. Schmidt *	Crete Hedypnois	AH	(FAC)	Asteraceae	U	7
Helenium bigelovii Gray	Bigelow Sneezeweed	PH	FACW	Asteraceae	U	11
Helenium puberulum DC.	Rosilla	A/PH	FACW	Asteraceae	U	15
Helianthus annuus L.	Common Sunflower	AH	FACU	Asteraceae	S	18
Helianthus californicus DC.	California Sunflower	РН	OBL	Asteraceae	R	11
Helianthus gracilentus Gray	Wild Mountain or Slender Sunflower	PH		Asteraceae	О	37
Helianthus inexpectatus D.J. Keil and Elvin	Newhall Sunflower	PH	(OBL)	Asteraceae	T, 1B.1	1
Helianthus petiolaris Nutt. *	Prairie Sunflower	AH		Asteraceae	R	1
<i>Heliotropium curassavicum</i> var. <i>oculatum</i> (A. Heller) Tidestr.	Alkali Heliotrope, Chinese Pusley	PH	FACU	Heliotropiaceae	S	28
Helminthotheca echioides (L.) Holub *	Bristly Ox-tongue	AH	FACU	Asteraceae	R	4
Hemizonella minima (A. Gray) A. Gray	Hemizonella	AH		Asteraceae	R	10
Heracleum maximum W. Bartram	Common Cowparsnip	PR	FACW	Apiaceae	R	1
Herniaria hirsuta L. var. cinerea (DC.) Loret & Barrandon *	Hairy Herniawort	AH		Caryophyllaceae	U	8
Hesperevax acaulis var. robustior Morefield	Robust Dwarf Evax	AH		Asteraceae	R	2
Hesperochiron californicus (Benth.) S. Watson	California Hesperochiron	PH	FACU	Hydrophyllaceae	R	4
Hesperochiron pumilus (Griseb.) Porter	Hesperochiron	PH	FAC	Hydrophyllaceae	R	1



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Hesperocnide tenella Torrey	Western Nettle	AH		Urticaceae	U	9
Hesperocyparis forbesii (Jepson) Bartel	Tecate Cypress	S/T		Cupressaceae	R, 1B.1	3
Hesperocyparis macrocarpa (Hartweg) Bartel *	Monterey Cypress	Т		Cupressaceae	R, 1B.2	2
Hesperocyparis nevadensis (Abrams) Bartel *	Piute Cypress	Т		Cupressaceae	R, 1B.2	2
Hesperocyparis stephensonii (C.B. Wolf) Bartel *	Cuyamaca Cypress	Т		Cupresseaceae	R, 1B.1	6
Hesperolinon micranthum (A. Gray) Small	Dwarf Flax	AH		Linaceae	R	1
<i>Hesperoyucca whipplei</i> ssp. <i>cespitosa</i> (M.E. Jones) A.L. Haines	Clumping Our Lord's Candle	S		Agavaceae	R	7
<i>Hesperoyucca whipplei</i> ssp. <i>intermedia</i> A.L. Haines	Intermediate Our Lord's Candle	S		Agavaceae	R	2
Hesperoyucca whipplei Torrey ssp. whipplei	Our Lord's Candle	S		Agavaceae	С	281
Heterocodon rariflorum Nuttall	Western Pearl-flower	AH	FACW	Campanulaceae	R	5
Heteromeles arbutifolia (Lindley) Roemer	Toyon, Christmas Holly, Hollywood	S		Rosaceae	С	105
Heterotheca grandiflora Nuttall	Telegraph Weed	PH		Asteraceae	S	18
Heterotheca sessiliflora ssp. camphorata (Eastw.) Semple	Camphor False Goldenaster	РН		Asteraceae	R	2
Heterotheca sessiliflora ssp. echioides (Benth.) Semple	Sessileflower False Goldenaster	РН		Asteraceae	С	39
Heterotheca sessiliflora ssp. fastigiata (Greene) Semple	Sessileflower False Goldenaster	РН		Asteraceae	U	13
Heterotheca sessiliflora (Nutt.) Shinners ssp. sessiliflora	Sessileflower False Goldenaster	PH		Asteraceae	R	4
Heterotheca subaxillaris ssp. latifolia (Buckley) Semple	False Goldenaster	A/BH		Asteraceae	R	2



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Heterotheca villosa var. hispida (Hook.) V. Harms	Woolly Goldenaster	PH		Asteraceae	R	1
Heuchera abramsii Rydberg	Abrams Alumroot	PH		Saxifragaceae	R, 4.3	1
Heuchera caespitosa Eastw.	Urn-flowered Alumroot	РН		Saxifragaceae	R, 4.3	1
Heuchera elegans Abrams	Elegant Alumroot	PH		Saxifragaceae	R	3
Hieracium albiflorum Hooker	White-flowered Hawkweed	РН	(FAC-)	Asteraceae	R	4
Hieracium argutum Nuttall	Southern California Hawkweed	РН		Asteraceae	R	1
Hieracium horridum Fries	Shaggy or Woolly Hawkweed	PH		Asteraceae	R	1
Hirschfeldia incana (L.) LagrFossat *	Summer Mustard	PH	(FACU)	Brassicaceae	С	179
Hoffmannseggia glauca (Ortega) Eifert	Pig-nut, Hog Potato	S	FACU	Fabaceae	R	1
Hoita macrostachya (DC.) Rydb.	Leather Root, California Tea	PH	OBL	Fabaceae	S	17
Hoita orbicularis (Lindley) Rydb.	Round-leaved Hoita	PH	OBL	Fabaceae	R	2
Holcus lanatus L. *	Common Velvet Grass	PG	FAC	Poaceae	R	1
Holocarpha heermannii (E. Greene) Keck	Heermann Tarplant	AH		Asteraceae	R	1
Holodiscus discolor (Pursh) Maxim. var. discolor	Oceanspray, Cream Bush	S	FACU	Rosaceae	U	14
Holodiscus discolor var. microphyllus (Rydb.) Jeps.	Rock Spiraea	S	FACU	Rosaceae	U	8
Hordeum brachyantherum Nevski ssp. brachyantherum	Meadow Barley	AG	FACW	Poaceae	R	6
Hordeum brachyantherum ssp. californicum (Covas & Stebb.) v. Bothner et al.	California Barley	AG	FACW	Poaceae	R	9



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Hordeum depressum (Scribner & J.G. Smith) Rydb.	Low Barley	AG	FACW	Poaceae	U	7
Hordeum intercedens Nevski	Vernal Barley	AG	FAC	Poaceae	R, 3.2	3
Hordeum jubatum L. ssp. jubatum	Foxtail Barley	A/PG	FAC	Poaceae	R	1
Hordeum marinum ssp. gussoneanum (Parl.) Thell. *	Mediterranean Barley	AG	FAC	Poaceae	U	8
Hordeum murinum ssp. glaucum (Steudel) Tzvelev *	Summer Barley	AG	FACU	Poaceae	S	15
Hordeum murinum ssp. leporinum (Link) Arcang. *	Hare Barley	AG	FACU	Poaceae	R	6
Hordeum murinum L. ssp. murinum *	Winter Barley	AG	FACU	Poaceae	U	7
<i>Hordeum vulgare var. trifurcatum</i> (Schlecht) Alefeld *	Beardless Barley	AG		Poaceae	R	1
Hordeum vulgare L. var. vulgare *	Common Barley	AG		Poaceae	R	2
Horkelia cuneata Lindley ssp. cuneata	Wedgeleaf Horkelia	РН		Rosaceae	R	2
Horkelia rydbergii Elmer	Rydberg Horkelia	PH	(FACU)	Rosaceae	R	6
Hornungia procumbens (L.) Hayek *	Desert Hutchinsia	AH	FAC	Brassicaceae	U	8
Hosackia crassifolia Bentham var. crassifolia	Buck Lotus	РН		Fabaceae	R	16
<i>Hosackia oblongifolia</i> var. <i>cuprea</i> (E. Greene) Brouillet	Stream Trefoil	PH	OBL	Fabaceae	R	1
Hosackia oblongifolia Bentham var. oblongifolia	Narrow-leaved Hosackia, Stream Trefoil	PH	OBL	Fabaceae	R	14
Hosackia stipularis Bentham var. stipularis	Balsam Lotus	PH		Fabaceae	R	5
Hulsea heterochroma Gray	Red-rayed Hulsea	A/PH		Asteraceae	U	16



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<i>Hulsea vestita</i> ssp. <i>gabrielensis</i> Wilken	San Gabriel Hulsea	PH		Asteraceae	U, 4.3	9
Hulsea vestita ssp. parryi (A. Gray) Wilken	Parry's Sunflower	PH		Asteraceae	R, 4.3	1
Hydrocotyle verticillata Thunb.	Marsh Pennywort	PH	OBL	Araliaceae	R	2
Hyparrhenia hirta (L.) Stapf *	Thatching Grass	PG		Poaceae	R	1
Hypericum formosum var. scouleri (Hook.) J. Coulter	St. John's Wort	PH	(FACW)	Clusiaceae	U	22
Hypochaeris glabra L. *	Smooth Cat's-ear	AH		Asteraceae	R	5
Imperata brevifolia Vasey	Satintail	PG	FAC	Poaceae	R, 2.1	1
Iris germanica L. *	Bearded Iris	PG		Iridaceae	R	1
Iris hartwegii ssp. australis (Parish) L.W. Lenz	Hartweg's Southern Iris	PG	FACU	Iridaceae	R	1
Iris missouriensis Nuttall	Western Blue Flag [Iris]	PG	FACW	Iridaceae	U	11
Isocoma menziesii (Hook. & Arn.) G. Nesom var. menziesii	Coastal Goldenbush	S	FAC	Asteraceae	R	1
Isocoma menziesii var. sedoides (E. Greene) G. Nesom	Coastal Goldenbush	S	FAC	Asteraceae	R	1
<i>Isocoma menziesii</i> var. <i>vernonioides</i> (Nuttall) G. Nesom	Coastal Goldenbush	S	FAC	Asteraceae	U	9
Isolepis cernua (Vahl) Roemer & Schultes var. cernua	Low Clubrush	AH	OBL	Cyperaceae	R	4
Iva axillaris ssp. robustior (Hooker) Bassett	Poverty Weed, Small-flowered Sumpweed	PH	FAC	Asteraceae	U	21
Ivesia santolinoides A.Gray	Mousetail Ivesia	PH		Rosaceae	U	9
Ivesia saxosa (Greene) B. Ertter	Five-finger Silverweed	РН		Rosaceae	R	1



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Jacaranda mimosifolia D. Don *	Blue Jacaranda	Т	?	Bignoniaceae	R	1
Jaumea carnosa (Less.) Gray	Fleshy Jaumea	PH	OBL	Asteraceae	R	4
Johnstonella [Cryptantha] micromeres (A. Gray) Hasenstab & M.G. Simpson	Minute-flowered Forget	AH		Boraginaceae	R	8
Juglans californica S. Watson [var. californica]	Southern California Black Walnut	Т	FACU	Juglandaceae	C, 4.2	62
Juglans hindsii Jepson ex R.E. Sm. [J. californica var. hindsii] *	Hinds Black Walnut	Т	FAC	Juglandaceae	R	2
Juncus acuminatus Michx.	Tapered Rush	PG	OBL	Juncaceae	R	1
Juncus acutus ssp. leopoldii (Parl.) Snogerup	Spiny Rush	PG	FACW	Juncaceae	S, 4.2	24
Juncus balticus ssp. ater (Rydberg) Snogerup	Rocky Mountain Rush	PG	FACW	Juncaceae	U	8
Juncus balticus Willd. ssp. balticus	Baltic Rush	PG	FACW	Juncaceae	U	8
Juncus balticus ssp. vallicola Rydb.	Valley Baltic Rush	PG	FACW	Juncaceae	R	2
Juncus bufonius L. var. bufonius	Common Toad Rush	AG	FACW	Juncaceae	S	23
Juncus bufonius var. congestus Wahlenb.	Congested Common Toad Rush	AG	FACW	Juncaceae	R	4
Juncus bufonius var. occidentalis F.J. Herm.	Western Toad Rush	AG	FACW	Juncaceae	R	3
Juncus confusus Cov.	Colorado Rush	PG	FAC	Juncaceae	R	1
Juncus covillei Piper	Coville's Rush	PG	FACW	Juncaceae	R	1
Juncus dubius Englem.	Mariposa Rush	PG	FACW	Juncaceae	R	2
Juncus effusus ssp. austrocalifornicus H.L. Lint ex Zita	Pacific Rush	PG	FACW	Juncaceae	R	5



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Juncus effusus L. ssp. pacificus (Fernald & Wiegand) Piper & Beattie	Pacific Rush	PG	FACW	Juncaceae	R	2
Juncus ensifolius Wikström var. ensifolius	Swordleaf or Three- stamen Rush	PG	FACW	Juncaceae	R	2
Juncus luciensis Ertter	Santa Lucia Dwarf Rush	AG	OBL	Juncaceae	R, 1B.2	1
Juncus macrandrus Cov.	Long-anthered Rush	PG	OBL	Juncaceae	U	8
Juncus macrophyllus Cov.	Large-leaf Rush	PG	FACW	Juncaceae	S	28
Juncus mexicanus Willd. ex Schultes & Schultes.f.	Mexican Rush, Wire Grass	PG	FACW	Juncaceae	R	55
Juncus nevadensis S. Watson var. nevadensis	Sierra Rush	PG	FACW	Juncaceae	R	5
Juncus occidentalis (Coville) Wiegand	Western Rush	PG	FACW	Juncaceae	R	1
Juncus oxymeris Engelm.	Iris-leaved or Pointed Rush	PG	FACW	Juncaceae	U	9
Juncus patens E. Meyer	Spreading Rush	PG	FACW	Juncaceae	R	2
Juncus phaeocephalus var. paniculatus Engelm.	Brown-fruited Rush	PG	FACW	Juncaceae	R	1
Juncus phaeocephalus Engelm.var. phaeocephalus	Brown-fruited Rush	PG	FACW	Juncaceae	R	1
Juncus rugulosus Engelm.	Wrinkled Rush	PG	OBL	Juncaceae	U	31
Juncus tenuis Willd.	Poverty Rush	PG	FACW	Juncaceae	R	4
Juncus textilis Buchenau	Indian or Basket Rush	PG	FACW	Juncaceae	U	13
Juncus tiehmii Ertter	Nevada Rush	PG	FACW	Juncaceae	R	3
Juncus torreyi Coville	Torrey's Rush	PG	FACW	Juncaceae	U	8



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Juncus xiphioides E. Meyer	Iris-leaved Rush	PG	OBL	Juncaceae	U	20
Juniperus californica Carrière	California Juniper	S		Cupressaceae	С	94
Juniperus occidentalis Hook.	Western Juniper	Т		Cupressaceae	R	4
Keckiella antirrhinoides (Benth.) Straw var. antirrhinoides	Chaparral Beardtongue	S	-	Plantaginaceae	R	2
Keckiella breviflora (Lindley) I.M. Johnston var. breviflora	Stubflower Penstemon, Gaping Beardtongue	S	-	Plantaginaceae	S	30
<i>Keckiella breviflora</i> var. <i>glabrisepala</i> (D.D. Keck) N.H. Holmgren	Naked Stubflower Penstemon, Gaping Beardtongue	S		Plantaginaceae	R	1
Keckiella cordifolia (Bentham) I.M. Johnston	Heart-leaved Bush Penstemon	S		Plantaginaceae	С	77
Keckiella ternata var. septentrionalis (Munz & Johnston) N. Holmgren	Blue-stemmed Bush Penstemon	S		Plantaginaceae	S	55
Keckiella ternata (Torr.&A. Gray) Straw var. ternata	Blue-stemmed Bush Penstemon	S		Plantaginaceae	R	4
Kickxia elatine (L.) Dumort. *	Arrowleaf Fluellin	AH	UPL	Plantaginaceae	R	1
Kochia scoparia (L.) Schrader *	Common Kochia	AH		Chenopodiaceae	R	8
Koeleria macrantha (Ledeb.) J.A. Schultes	Junegrass	PG		Poaceae	R	6
Krascheninnikovia lanata (Pursh) A.D.J. Meeuse & Smit	Winter Fat	S		Chenopodiaceae	R	3
Lactuca sativa L. *	Lettuce	AH	(FAC)	Asteraceae	R	2
Lactuca serriola L. *	Prickly Wild Lettuce	AH	FACU	Asteraceae	R	71
Laënnecia coulteri (A. Gray) G.L. Nesom [Conyza coulteri]	Coulter Horseweed	AH	FAC	Asteraceae	U	8
Lagophylla ramosissima Nutt. ssp. ramosissima	Branched Lagophylla, Common Hareleaf	AH		Asteraceae	S	23



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Lagunaria patersonia (Andrews) G. Don *	Cow-itch Tree	Т		Malvaceae	R	1
Lamarckia aurea (L.) Moench *	Goldentop	AG	FACU	Poaceae	U	9
Lamium amplexicaule L. *	Henbit, Dead Nettle	AH		Lamiaceae	R	5
Landoltia punctata (G. Mey.) Les & D.J. Crawford	Dotted Duckmeat	AG	OBL	Araceae	R	1
Larrea tridentata (DC.) Coville	Creosote Bush	S		Zygophyllaceae	R	3
Lastarriaea coriacea (Goodman) Hoover	Lastarriaea	AH		Polygonaceae	U	10
Lasthenia californica Lindley ssp. californica	California Goldfields	AH	FACU	Asteraceae	S	18
Lasthenia coronaria (Nutt.) Ornduff	Crown-pappus Goldfields	AH		Asteraceae	R	2
Lasthenia ferrisiae Ornduff	Ferris Goldfields	AH	OBL	Asteraceae	R, 4.2	1
Lasthenia glabrata ssp. coulteri (Gray) Ornduff	Rayless Goldfields	AH	OBL	Asteraceae	U, 1B.1	8
Lasthenia gracilis (DC.) Greene	Common Goldfields	AH	(FACU)	Asteraceae	О	40
Lasthenia microglossa (A. DC.) E. Greene	Small-rayed Goldfields	AH		Asteraceae	R	2
Lathyrus latifolius L. *	Perennial Sweet Pea	PV		Fabaceae	R	1
Lathyrus vestitus ssp. alefeldii (T.G. White) Broich	Alefeld's Pacific Peavine	PV		Fabaceae	R	1
Lathyrus vestitus ssp. bolanderi (S. Watson) C. Hitchc.	White-petaled Pacific Peavine	PV		Fabaceae	R	1
Lathyrus vestitus ssp. laetiflorus (Greene) Broich	Pacific Peavine	PV		Fabaceae	U	10
Lathyrus vestitus ssp. laevicarpus Broich	Naked-pod Pacific Peavine	PV		Fabaceae	S	32



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Lathyrus vestitus Nuttall ssp. vestitus	Pacific Peavine	PV		Fabaceae	С	37
Laurus nobilis L. *	Sweet Bay	Т		Lauraceae	R	1
Layia glandulosa (Hook.) Hook. & Arn. ssp. glandulosa	White Layia	AH		Asteraceae	С	44
Layia glandulosa ssp. lutea Keck	Yellow Layia	AH		Asteraceae	U	7
Layia heterotricha (DC.) Hooker & Arnott	Pale-yellow Layia	AH	FAC	Asteraceae	R, 1B.1	8
Layia pentachaeata ssp. albida Keck	White Sierra Tidy Tips	AH		Asteraceae	R	2
Layia platyglossa (Fischer & C. Meyer) A. Gray	Tidy Tips	AH		Asteraceae	S	16
Lemna minuta Kunth	Tiny Duckweed	AG	OBL	Araceae	U	7
Lemna turionifera Landolt	Duckweed	AG	OBL	Araceae	R	1
Lemna valdiviana Philippi	Big Duckweed	AG	OBL	Araceae	R	3
Lepechinia calycina (Bentham) Epling	Pitcher Sage	S		Lamiaceae	R	2
Lepechinia rossii S. Boyd & O. Mistretta	Ross' Pitcher Sage	S		Lamiaceae	U, 1B.2	9
Lepidium appelianum Al-Shehbaz [Cardaria pubescens] *	White-top	PH	UPL	Brassicaceae	S	18
Lepidium campestre (L.) R.Br. *	Peppergrass	A/BH		Brassicaceae	R	1
Lepidium chalepense L. *	Lens-podded Hoary Cress	РН	?	Brassicaceae	R	3
Lepidium densiflorum Schrad.	Dense-flowered Peppergrass	A/BH	?	Brassicaceae	R	2
Lepidium dictyotum A. Gray	Veiny Peppergras	AH	FAC	Brassicaceae	U	7



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Lepidium didymum L. *	Wart Cress	AH		Brassicaceae	R	2
Lepidium draba L. *	Heart-podded Hoary Cress	РН	(FACU)	Brassicaceae	U	9
Lepidium fremontii S. Watson	Desert Pepperweed	PH	UPL	Brassicaceae	R	3
Lepidium lasiocarpum Nutt. var. lasiocarpum	Hairy-pod Peppergrass	AH		Brassicaceae	U	7
Lepidium latifolium L. *	Broadleaf Peppergrass	PH	FAC	Brassicaceae	U	13
Lepidium latipes Hook.	Dwarf Peppergrass	AH	FACW	Brassicaceae	R	1
Lepidium nitidum Torrey & A. Gray	Common Peppergrass	AH	FAC	Brassicaceae	S	15
Lepidium oblongum Small	Wayside Peppergrass	AH		Brassicaceae	R	3
Lepidium pinnatifidum Ledebour *	Featherleaf Peppergrass	AH		Brassicaceae	R	5
Lepidium strictum (S. Watson) Rattan	Prostrate Peppergrass	AH		Brassicaceae	R	2
Lepidium virginicum L. var. virginicum	Virginia pepperweed	AH		Brassicaceae	R	3
<i>Lepidium virginicum</i> var. <i>menziesii</i> (de Candolle) Thell.	Hairy Poorman's Peppergrass	AH	FACU	Brassicaceae	R	4
<i>Lepidium virginicum</i> var. <i>robinsonii</i> (Thell.) C.L. Hitchc.	Robinson's Poorman's Peppergrass	AH	FACU	Brassicaceae	R, 4.3	1
Lepidospartum squamatum (A. Gray) A. Gray	Scalebroom	S	FACU	Asteraceae	S	57
Leptochloa fusca ssp. fascicularis (Lam.) N. Snow	Bearded Sprangletop	AG	(OBL)	Poaceae	R	1
Leptochloa fusca ssp. uninervia (J. Presl) N. Snow	Mexican Sprangletop	PG	(FACW)	Poaceae	S	11
Leptosiphon androsaceus Bentham	Baby Tears	AH		Polemoniaceae	U	7



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Leptosiphon aureus (Nuttall) E. Greene ssp. aureus	Desert Gold	AH		Polemoniaceae	S	16
Leptosiphon bicolor Nuttall	Bicolored Linanthus	AH		Polemoniaceae	R	4
Leptosiphon breviculus (A. Gray) J.M. Porter & L.A. Johnson	Short-stemmed Linanthus	AH		Polemoniaceae	R	3
<i>Leptosiphon chrysanthus</i> J.M. Porter & R. Patt. ssp. <i>chrysanthus</i>		AH		Polemoniaceae	R	20
Leptosiphon ciliatus (Benth.) Jepson	Whisker Brush	AH		Polemoniaceae	U	12
<i>Leptosiphon liniflorus</i> (Bentham) J.M. Porter & L.A. Johnson	Linanthus	AH		Polemoniaceae	О	26
Leptosiphon nudatus (E. Greene) J.M. Porter & L.A. Johnson	Tehachapi Linanthus	AH		Polemoniaceae	R	1
Leptosiphon parviflorus Bentham	Yellow Linanthus	AH		Polemoniaceae	С	56
<i>Leptosiphon pygmaeus</i> ssp. <i>continentalis</i> (Raven) Porter & Johnson	Continental Pygmy Linanthus	AH		Polemoniaceae	R	5
<i>Leptosiphon pygmaeus</i> (Brand) J.M. Porter & L.A. Johnson ssp. <i>pygmaeus</i>	Pygmy Leptosiphon	AH		Polemoniaceae	R, 1B.2	3
Leptosyne bigelovii (A. Gray) A.Gray	Bigelow Coreopsis	AH		Asteraceae	С	105
Leptosyne californica Nutt.	California Coreopsis	AH		Asteraceae	R	1
Leptosyne calliopsidea (DC.) A. Gray	Leafy-stemmed Coreopsis	AH		Asteraceae	R	3
Leptosyne douglasii DC.	Douglas' coreopsis	AH		Asteraceae	R	2
Leptosyne gigantea Kellogg	Giant Coreopsis	S		Asteraceae	R	5
Lessingia glandulifera A. Gray var. glandulifera	Sticky or San Francisco or Valley Lessingia	AH		Asteraceae	S	23
Lessingia glandulifera var. peirsonii (J.T. Howell) Markos	Peirson Lessingia	AH		Asteraceae	0	31



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Lessingia leptoclada A. Gray	Sierra Lessingia	AH		Asteraceae	R	2
Lessingia nemaclada Greene	Slenderstem Lessingia	AH		Asteraceae	R	1
Lessingia pectinata var. tenuipes (J.T. Howell) Markos	Sticky Lessingia	AH		Asteraceae	R	1
Lessingia tenuis (Gray) Cov.	Tenuous Lessingia	AH		Asteraceae	O, 4.3	65
Lewisia nevadensis (A. Gray) Robinson	Sierra Nevada Bitterroot	PH	(FAC)	Montiaceae	R	1
Lewisia pygmaea (A. Gray) Robinson	Pygmy Bitterroot	PH	FACU	Montiaceae	R	1
Lewisia rediviva ssp. minor (Rydb.) Munz	Small Bitterroot	РН		Montiaceae	S	13
Ligustrum quihoui Carrière *	Lobed Privet	S		Oleaceae	R	1
<i>Lilium humboldtii</i> ssp. <i>ocellatum</i> (Kellogg) Thorne	Ocellated Humboldt Lily	PH		Liliaceae	S, 4.2	29
Lilium pardalinum Kellogg ssp. pardalinum	Leopard Lily	PH	FACW	Liliaceae	R	3
Limonium californicum (Boiss.) A.A. Heller	Marsh Rosemary	PH	FACW	Plumbaginaceae	U	10
Limonium perezii (Stapf) F.T. Hubbard *	Perez's Sea Lavender	PH		Plumbaginaceae	R	3
Limonium ramosissimum (Poir.) Maire *	Algerian Sea Lavender	PH	FACW	Plumbaginaceae	R	3
Limonium sinuatum (L.) Mill. *	Wavyleaf Sea Lavender	PH	FACW	Plumbaginaceae	R	2
Limosella acaulis Sesse & Mocino	Tufted Mudwort	AH	OBL	Plantaginaceae	R	1
Limosella aquatica L.	Mudwort	AH	OBL	Plantaginaceae	R	4
Linanthus bigelovii (Gray) Greene	Bigelow Linanthus	AH		Polemoniaceae	R	4



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Linanthus californicus (Hook. & Arn.) J.M. Porter & L.A. Johnson	Prickly Phlox	S		Polemoniaceae	С	41
Linanthus dianthiflorus (Benth.) Greene	Ground Pink	AH	-	Polemoniaceae	R	1
Linanthus dichotomus Benth. subsp. dichotomus	Evening Snow	AH		Polemoniaceae	С	32
<i>Linanthus dichotomus</i> subsp. <i>pattersonii</i> J.M. Porter	Patterson's Evening Snow	AH		Polemoniaceae	U	6
Linanthus parryae (Gray) Greene	Parry Linanthus	AH		Polemoniaceae	О	25
Linanthus pungens (Torr.) J.M. Porter & L.A. Johnson ssp. pulchriflorus (Brand) J.M. Porter & R. Patt.	Granite Prickly Phlox	S		Polemoniaceae	U	14
Linaria dalmatica (L.) Mill. ssp. dalmatica *	Dalmatian Toadflax	PH		Plantaginaceae	R	4
Linaria maroccana Hook. f. *	Moroccan Toadflax	AH		Plantaginaceae	R	1
Linum lewisii Pursh	Western Blue Flax	PH		Linaceae	S	23
Liquidambar styraciflua L. *	Sweetgum	Т	FAC	Hamamelidaceae	R	6
Lithophragma affine Gray	Woodland Star	PH		Saxifragaceae	U	10
Lithophragma bolanderi Gray	Bolander Star	РН		Saxifragaceae	S	21
Lithophragma cymbalaria T. & G.	Mission Star	РН		Saxifragaceae	U	10
Lithophragma glabrum Nutt.	Smooth Star	РН		Saxifragaceae	R	1
Lithophragma heterophyllum (Hook. & Arn.) T. & G.	Hill Star	PH		Saxifragaceae	R	3
Lithophragma parviflorum (Hook.) T. & G. var. parviflorum	Prairie Star	РН		Saxifragaceae	U	6
Lithraea caustica (Molina) Hook. & Arn. *	Litre Tree	Т		Anacardiaceae	R	1



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Lobelia dunnii var. serrata (Gray) McVaugh	Dunn Lobelia	PH	(OBL)	Lobeliaceae	S	17
Lobularia maritima (L.) Desv. *	Sweet Alyssum	PH		Brassicaceae	R	4
Loeflingia squarrosa Nuttall var. squarrosa	California Loeflingia	AH		Caryophyllaceae	S	14
Loeseliastrum matthewsii (A. Gray) Timbrook	Desert Calico	AH		Polemoniaceae	R	4
Loeseliastrum schottii S. Timbrook	Schott Loeseliastrum	AH		Polemoniaceae	R	1
Logfia depressa (A.Gray) Holub	Low Berbia Impia	AH		Asteraceae	R	1
Logfia filaginoides (Hook. & Arn.) Morefield	California Filago	AH		Asteraceae	С	50
Logfia gallica (L.) Coss. & Germ. *	Woolly Filago	AH		Asteraceae	U	22
<i>Lomatium californicum</i> (T. & G.) Mathias & Constance	California Lomatium	РН		Apiaceae	U	8
Lomatium caruifolium (H.& A.) J.M. Coult. & Rose var. caruifolium	Alkali Desertparsley	РН		Apiaceae	R	2
Lomatium dasycarpum (T. & G.) Coulter & Rose ssp. dasycarpum	Hairy Wing-fruit	PH		Apiaceae	С	52
Lomatium dissectum var. multifidum (T& G.) Mathias & Consance [L. multifidum]	Carrotleaf Biscuitroot	PH		Apiaceae	S	15
Lomatium lucidum (T. & G.) Jeps.	Shiny Lomatium	PH		Apiaceae	R	3
Lomatium macrocarpum (T. & G.) J. Coulter & Rose	Large-fruited Lomatium	РН		Apiaceae	R	4
Lomatium mohavense (Coult. & Rose) Coult. & Rose ssp. mohavense	Desert-parsley	РН		Apiaceae	С	42
Lomatium nevadense var. parishii (J.M. Coult.) Jeps.	Parish's Lomatium	PH		Apiaceae	U	10
Lomatium parvifolium (Hook. & Arn.) Jeps.	Small-leaved Lomatium	РН		Apiaceae	R	1



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Lomatium utriculatum (T. & G.) Coulter & Rose	Foothill Lomatium	PH		Apiaceae	0	29
Lomatium vaginatum J.M. Coult. & Rose	Broadsheath Lomatium	PH		Apiaceae	U	10
Lonicera interrupta Benth.	Chaparral Honeysuckle	S		Caprifoliaceae	С	40
Lonicera japonica Thunb. *	Japanese Honeysuckle	S	FACU	Caprifoliaceae	R	1
Lonicera subspicata var. denudata Rehder	Southern or San Diego Honeysuckle	S		Caprifoliaceae	С	75
Lonicera subspicata Hooker & Arnott var. subspicata	Santa Ynez Mountains Honeysuckle	S		Caprifoliaceae	U, 1B.2	7
Lotus corniculatus L. *	Birdsfoot Trefoil	PH	FAC	Fabaceae	U	11
Ludwigia grandiflora (Michx.) Greuter & Burdet ssp. grandiflora *	Large-flowered Primrose-willow	РН	OBL	Onagraceae	R	2
Ludwigia hexapetala (Camb.) Hara *	Uraguay Water Primrose	PH	OBL	Onagraceae	R	1
Ludwigia peploides (Kunth) Raven ssp. peploides *	Floating Seedbox	PH	OBL	Onagraceae	S	6
Lupinus adsurgens E. Drew var. adsurgens	Silky Lupine	PH		Fabaceae	R	3
Lupinus adsurgens var. undulatus C.P. Smith	Wavyleaf Silky Lupine	PH		Fabaceae	R	2
Lupinus agardhianus Heller	Agardh's Lupine	PH	-	Fabaceae	R	2
Lupinus albicaulis Hooker	Whitestem Lupine	PH		Fabaceae	U	14
Lupinus albifrons Benth. var. albifrons	Silver Bush Lupine	S		Fabaceae	С	33
Lupinus albifrons (Benth.) var. austromontanus (A. Heller) Jeps. [L. excubitus var. austromontanus]	Southern Mountain Bush Lupine	S		Fabaceae	0	57
Lupinus albifrons var. collinus E. Greene	Dwarf Silver Bush Lupine	S		Fabaceae	R	1



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Lupinus andersonii S. Watson	Anderson Lupine	PH		Fabaceae	U	13
Lupinus arboreus Sims var. arboreus	Yellow Bush Lupine	S		Fabaceae	S	8
Lupinus arbustus Douglas	Spur Lupine	PH		Fabaceae	R	1
Lupinus benthamii Heller var. benthamii	Spider Lupine	AH		Fabaceae	R	27
Lupinus bicolor Lindley	Bicolored or Miniature Lupine	AH		Fabaceae	С	101
Lupinus breweri Gray var. breweri	Brewer Mat Lupine	PH		Fabaceae	U	12
Lupinus breweri var. bryoides C.P. Smith	Alpine Brewer Lupine	РН		Fabaceae	U	7
Lupinus chamissonis Eschsch.	Coastal Bush Lupine	S		Fabaceae	R	2
Lupinus concinnus J. Agardh spp. concinnus	Bajada Lupine	AH		Fabaceae	С	61
Lupinus concinnus spp. optatus D. Dunn	Bajada Lupine	AH		Fabaceae	R	8
<i>Lupinus concinnus</i> spp. <i>orcutti</i> (S. Watson) D. Dunn	Orcutt Bajada Lupine	AH		Fabaceae	R	3
Lupinus elatus I.M. Johnston	Johnston Silky Lupine	РН		Fabaceae	C, 4.3	58
Lupinus excubitus M.E. Jones var. excubitus	Grape Soda Lupine	S		Fabaceae	S	39
Lupinus excubitus var. hallii (Abrams) C.P. Smith	Hall Bush Lupine	S		Fabaceae	С	21
Lupinus excubitus var. johnstonii C.P. Smith	Johnston Bush Lupine	S		Fabaceae	R, 4.3	5
Lupinus formosus Greene var. formosus	Summer Bush Lupine	РН		Fabaceae	С	43
Lupinus formosus var. robustus C.P. Smith	Summer Bush Lupine	PH		Fabaceae	U	7



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Lupinus grayi S. Watson	Gray's Lupine	PH		Fabaceae	R	1
Lupinus hirsutissimus Bentham	Nettle or Stinging Lupine	AH		Fabaceae	С	74
Lupinus latifolius J. Agardh var. latifolius	Broad-leaved Lupine	PH	FACW	Fabaceae	S	15
Lupinus latifolius var. parishii C.P. Smith	Parish Broad-leaved Lupine	РН	FACW	Fabaceae	S	17
<i>Lupinus lepidus</i> var. <i>confertus</i> (Kellogg) C.P. Smith	Prairie Lupine	PH		Fabaceae	S	23
Lupinus longifolius (S. Watson) Abrams	Long-leaved Bush Lupine	S		Fabaceae	S	20
Lupinus luteolus Kellogg	Butter Lupine	AH		Fabaceae	U	14
Lupinus microcarpus Sims	Chick Lupine	AH		Fabaceae	С	13
Lupinus microcarpus var. densiflorus (Benth) Jeps.	Densely Red- flowered Lupine	AH		Fabaceae	С	46
<i>Lupinus microcarpus</i> var. <i>horizontalis</i> (A.A. Heller) Jeps.	Prostrate Red- flowered Lupine	AH		Fabaceae	О	22
Lupinus microcarpus Sims var. microcarpus	Red-flowered Lupine	AH		Fabaceae	С	61
Lupinus nanus Benth.	Small Lupine	AH		Fabaceae	S	18
Lupinus paynei Davidson	Payne's Bush Lupine	S		Fabaceae	R	2
Lupinus polyphyllus var. burkei (S. Watson) C. Hitchc.	Burke's Large-leaved Lupine	PH	FAC	Fabaceae	R	4
Lupinus sparsiflorus Benth. ssp. sparsiflorus	Few-flowered or Loose-flowered Lupine	AH		Fabaceae	С	81
Lupinus succulentus Douglas	Fleshy Lupine	AH		Fabaceae	С	46
Lupinus truncatus Nuttall	Truncate-leaved Lupine	AH		Fabaceae	С	36



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Lycium andersonii Gray	Anderson Desert- thorn	S	-	Solanaceae	R	1
Lycium cooperi A. Gray	Cooper's Boxthorn	S	-	Solanaceae	R	10
<i>Lysimachia</i> [Anagallis] arvensis (L.) U. Manns & Anderb. *	Scarlet Pimpernel	AH	FAC	Myrsinaceae	S	15
Lythrum californicum T. & G.	California Loosestrife	PH	OBL	Lythraceae	U	18
Lythrum hyssopifolia L. *	Hyssop Loosestrife	AH	OBL	Lythraceae	R	3
Madia elegans ssp. densifolia (E. Greene) Keck	Dense-flowered Tarplant or Madia	AH		Asteraceae	R	2
Madia elegans D. Don ssp. elegans	Common Tarplant or Madia	AH		Asteraceae	С	42
Madia elegans ssp. vernalis Keck	Vernal Tarplant or Madia	AH		Asteraceae	R	3
Madia elegans ssp. wheeleri (Gray) Keck	Wheeler Tarplant or Madia	AH		Asteraceae	U	10
Madia exigua (Smith) A. Gray	Small or Threadstem Tarplant or Madia	AH		Asteraceae	R	5
Madia gracilis (Smith) Keck	Slender Tarplant or Madia	AH		Asteraceae	С	41
Madia sativa Molina	Coast Tarplant	AH		Asteraceae	R	4
Maianthemum racemosum [ssp. amplexicaule] (Nutt.) LaFrankie	False Solomon's Seal, Wild Lily of the Valley	PG	FAC	Ruscaceae	R	1
Maianthemum stellatum (L.) Link	False Solomon's Seal, Wild Lily of the Valley	PG	FACU	Ruscaceae	R	5
Malacothamnus davidsonii (B.L. Rob.) Greene	Davidson's Bushmallow	S		Malvaceae	R, 1B.2	4
Malacothamnus fasciculatus (Nutt.ex T.& G.) Greene var. fasciculatus	Chaparral Bushmallow	S		Malvaceae	С	42
Malacothamnus fasciculatus var. laxiflorus (Gray) Kearney	Lax-flowered Bushmallow	S		Malvaceae	R	3



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
<i>Malacothamnus fasciculatus</i> var. <i>nuttallii</i> (Abrams) Kearney	Nuttall Bushmallow	S		Malvaceae	R	2
<i>Malacothamnus fremontii</i> (Torrey ex Gray) Torrey ex. Greene	Fremont Bushmallow	S		Malvaceae	С	38
Malacothamnus marrubioides (D. & H.) Greene	Pink-flowered Bushmallow	S		Malvaceae	0	127
Malacothamnus marrubioides (D. & H.) Greene X M. orbiculatus (E. Greene) E. Greene	Bushmallow Hybrid	S		Malvaceae	0	3
Malacothamnus orbiculatus (E. Greene) E. Greene	Roundleaf Bushmallow	S		Malvaceae	S	43
Malacothrix californica DC. var. californica	California Cliff-aster	PH		Asteraceae	О	27
Malacothrix clevelandii Gray	Cleveland Cliff-aster	AH		Asteraceae	S	21
Malacothrix coulteri Gray	Snake-head	AH		Asteraceae	R	5
Malacothrix floccifera (DC.) Blake	Woolly or Flocose Dandelion	AH		Asteraceae	S	20
Malacothrix glabrata A. Gray	Desert Dandelion	AH		Asteraceae	R	7
Malacothrix incana (Nuttall) Torrey & A. Gray	Dunedelion	РН		Asteraceae	R, 4.3	1
Malacothrix phaeocarpa W.S. Davis	Brown-fruited Dandelion	AH		Asteraceae	R, 4.3	4
Malacothrix saxatilis (Nutt.) Torr. & A. Gray	Cliff-aster	РН		Asteraceae	С	18
Malacothrix saxatilis var. altissima (Greene) Ferris	Cliff-aster	РН		Asteraceae	R	3
Malacothrix saxatilis var. commutata Ferris	Cliff-aster	РН		Asteraceae	S	13
Malacothrix saxatilis (Nuttall) T. & G. var. saxatilis	California Cliff-aster	РН		Asteraceae	R, 4.2	6
Malacothrix saxatilis var. tenuifolia (Nutt.) Gray	Tenuated Cliff-aster	РН		Asteraceae	С	54



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Malacothrix similis W.S. Davis & P.H. Raven	Mexican Cliff-aster	AH		Asteraceae	R, 2A	1
Malephora crocea (Jacq.) Schwantes *	Croceum Iceplant	S		Aizoaceae	R	3
Malosma laurina Nuttall ex Abrams	Laurelleaf Sumac	S		Anacardiaceae	О	42
Malus pumila Mill. *	Apple	Т	-	Rosaceae	R	1
Malva [Lavatera] assurgentiflora (Kellogg) M.F. Ray	Malva Rose	S		Malvaceae	R, 1B.1	3
Malva arborea (L.) Webb & Berthel. *	Tree Mallow	S		Malvaceae	R	3
Malva neglecta Wallr. *	Common Mallow, Cheeses	A/BH		Malvaceae	R	1
Malva nicaeensis All. *	Bull Mallow	A/BH		Malvaceae	R	2
Malva parviflora L. *	Cheeseweed	AH		Malvaceae	О	32
Malva pseudolavatera Webb & Berthel. *	False Tree Mallow	S		Malvaceae	R	2
Malva sylvestris L. *	High Mallow	B/PH		Malvaceae	R	3
Malvella leprosa (Ortega) Krapov	Alkali-mallow, White-Weed	РН	FACU	Malvaceae	R	6
Marah fabacea (Naudin) Greene	California Man-root	PV		Cucurbitaceae	U	40
Marah horrida (Congdon) Dunn	Sierra Man-root	PV		Cucurbitaceae	S	17
Marah macrocarpa (Greene) Greene	Large-fruited Man- root, Chilicothe	PV		Cucurbitaceae	S	53
Marrubium vulgare L. *	White Horehound	S	FACU	Lamiaceae	С	51
Marsilea vestita Hooker & Greville ssp. vestita	Hairy Pepperwort, Clover Fern	PF	OBL	Marsiliaceae	R	1



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Matricaria discoidea DC.	Pineapple Weed, Rayless Chamomile	AH	FACU	Asteraceae	S	20
Matricaria occidentalis E. Greene	Valley Mayweed	AH	FACW	Asteraceae	R	1
Matthiola incana (L.) W.T. Aiton *	Stock	PH		Brassicaceae	R	1
Meconella denticulata E. Greene	Tiny Poppy	AH		Papaveraceae	R	5
Medicago lupulina L. *	Black Medick	AH	FAC	Fabaceae	U	11
Medicago minima (L.) Bartal. *	Burclover	AH		Fabaceae	R	3
Medicago polymorpha L. *	Common Burclover	AH	FACU	Fabaceae	0	42
Medicago sativa L. ssp. sativa *	Alfalfa	РН	UPL	Fabaceae	R	8
Melaleuca rugulosa (Link) Craven *	Scarlet Bottlebrush	S		Myrtaceae	R	1
Melaleuca viminalis (Sol. ex Gaertn.) Bymes *	Weeping Bottlebrush	S/T	(FAC)	Myrtaceae	R	1
Melia azedarach L. *	China Berry, Persian Lilac	Т	UPL	Meliaceae	R	2
Melica californica Scribner var. californica	California Melic Grass	PG		Poaceae	R	2
Melica frutescens Scribner	Woody Melic Grass	PG		Poaceae	R	2
Melica imperfecta Trin.	Coast Melic Grass	PG		Poaceae	С	145
Melica stricta Bolander var. stricta	Nodding Melic Grass	PG		Poaceae	U	9
Melicytus ramiflorus J.R. Forst. & G. Forst. *	Whiteywood	Т		Violaceae	R	1
Melilotus albus Medikus *	White Sweetclover	A/BH	(FACU)	Fabaceae	0	45


Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Melilotus indicus (L.) All. *	Sourclover, Yellow Sweetclover	AH	FACU	Fabaceae	S	52
Melilotus officinalis (L.) Lam. *	Yellow Sweetclover	BH	FACU	Fabaceae	U	6
Mentha aquatica L. *	Watermint	PH	FACW	Lamiaceae	R	2
Mentha arvensis L. *	Field Mint	PH	FACW	Lamiaceae	R	1
Mentha canadensis L.	Canada Mint	PH		Lamiaceae	R	6
Mentha Xpiperita L. *	Peppermint	PH	FACW	Lamiaceae	R	1
Mentha Xsmithiana R.A. Graham *	Redstem Mint	PH	(FACW)	Lamiaceae	R	1
Mentha spicata L. var. spicata *	Spearmint	PH	OBL	Lamiaceae	R	3
Mentha Xvillosa Huds. *	Mint	PH	(FACW)	Lamiaceae	R	2
<i>Mentzelia affinis</i> Greene	Orange-spotted Stickleaf	AH		Loasaceae	U	8
Mentzelia albicaulis (Hook.) T. & G.	Whitestem Stickleaf	AH		Loasaceae	S	20
Mentzelia congesta (Nuttall) T. & G. var. congesta	Congested Stickleaf	AH		Loasaceae	0	24
<i>Mentzelia congesta</i> var. <i>davidsoniana</i> (Abrams) J.F. Macbr.	Ventana Stickleaf	AH		Loasaceae	R	2
Mentzelia dispersa S. Watson	Scattered Stickleaf	AH		Loasaceae	С	42
Mentzelia gracilenta T. & G.	Slender Stickleaf	AH		Loasaceae	U	11
Mentzelia laevicaulis (Hooker) Torrey & Gray	Blazing Star	АН		Loasaceae	S	18
Mentzelia micrantha (Hook. & Arnott) T. & G.	Tiny-flowered Stickleaf	AH		Loasaceae	С	49



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
<i>Mentzelia montana</i> (Davidson) Davidson ssp. <i>montana</i>	Mountain Stickleaf	AH		Loasaceae	О	26
Mentzelia nitens Greene	Shining Blazing Star	AH	-	Loasaceae	R	1
Mentzelia obscura H.J. Thomps. & J.E. Roberts	Pacific Blazing Star	AH	-	Loasaceae	R	1
Mentzelia pectinata Kellogg	Stickleaf	AH		Loasaceae	U	9
Mentzelia ravenii H.J. Thomps. & J.E. Roberts	Raven's Stickleaf	AH		Loasaceae	U	6
Mentzelia veatchiana Kellogg	Veatch Stickleaf	AH		Loasaceae	С	65
Mesembryanthemum crystallinum L. *	Crystalline Iceplant	AH	FACU	Aizoaceae	R	4
Mesembryanthemum nodiflorum L. *	Slenderleaf Iceplant	AH	FAC	Aizoaceae	U	9
Micranthes californica (Greene) Small	California Saxifrage	РН	FACW	Saxifragaceae	U	6
Micropus californicus Fisch.&C.A. May var. californicus	Slender Cottonseed	AH		Asteraceae	U	6
Microseris douglasii (DC.) Schultz-Bip. ssp. douglasii	Douglas Microseris	AH		Asteraceae	U	9
<i>Microseris douglasii</i> ssp. <i>tenella</i> (A. Gray) Chambers	Slender Douglas Microseris	AH		Asteraceae	R	1
Microseris elegans A. Gray	Elegant Microseris	AH		Asteraceae	R	1
Microseris sylvatica (Benth.) Sch. Bip.	Sylvan Microseris	AH		Asteraceae	R. 4.2	3
<i>Microsteris gracilis</i> (Hook.) Greene [<i>Phlox gracilis</i> Greene]	Slender Phlox	AH	FACU	Polemoniaceae	С	37
Mimetanthe pilosa (Benth.) S. Watson	Pilose or Downy Monkeyflower	AH		Phrymaceae	О	41
Mirabilis jalapa L. var. jalapa *	Four O'Clock	РН	UPL	Nyctaginaceae	R	1



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<i>Mirabilis laevis</i> var. <i>crassifolia</i> A. Gray (Choisy) Spellenberg	California Wishbone Bush	PH		Nyctaginaceae	С	62
Mirabilis laevis var. villosa (Kellogg) Spellenberg	Hairy California Wishbone Bush	PH		Nyctaginaceae	R	6
Mirabilis multiflora var. pubescens S. Watson	Froebel Four O'Clock	PH		Nyctaginaceae	U	8
Modiola caroliniana (L.) G. Don. *	Wheel-Fruit Mallow	PH	FAC	Malvaceae	R	1
Monardella australis Abrams ssp. australis	Southern Coyote Mint	PH		Lamiaceae	R	2
<i>Monardella australis</i> Abrams ssp. <i>cinerea</i> (Abrams) A.C. Sanders & Elvin	Gray Monardella	PH		Lamiaceae	R, 4.3	1
<i>Monardella australis</i> ssp. <i>occidentalis</i> Elvin, B.A. Burgess & A.C. Sanders	Western Coyote Mint	PH		Lamiaceae	R, 1B.2	1
Monardella breweri Gray ssp. breweri	Brewer Coyote Mint	AH		Lamiaceae	S	25
Monardella breweri ssp. lanceolata (Gray) A.C. Sanders & Elvin	Mustang Mint	AH		Lamiaceae	С	42
Monardella candicans Benth.	Sierra monardella	AH		Lamiaceae	R, 4.3	1
Monardella hypoleuca Gray ssp. hypoleuca	White-veined Coyote Mint	PH		Lamiaceae	R, 1B.3	2
Monardella linoides A. Gray ssp. linoides	Flax-leaved Horsemint	PH	FACU	Lamiaceae	R	3
<i>Monardella linoides</i> ssp. <i>oblonga</i> (Greene) Abrams	Flax-leaved Horsemint	PH	FACU	Lamiaceae	C, 1B.3, FS	83
Monardella linoides ssp. stricta (Parish) Epling	Flax-leaved Horsemint	PH	FACU	Lamiaceae	R	1
Monardella macrantha Gray ssp. macrantha	Coyote Mint	PH		Lamiaceae	R	1
Monolepis nuttalliana (Schultes) E. Greene	Nuttall Monolepis, Poverty Weed	AH	FAC	Chenopodiaceae	R	2
Monolopia lanceolata Nuttall	Lanceleaf Hilltop Daisy	AH		Asteraceae	S	12



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Monolopia major DC.	Cupped Daisy	AH		Asteraceae	R	1
Montia chamissoi (Ledeb. Ex Spreng.) Greene	Toad-Lily	PH	OBL	Montiaceae	R	5
Montia fontana L.	Water Chickweed	AH	FACW	Montiaceae	R	5
Morella californica (Chamisso & Schltdl.) Wilbur	California Wax- Myrtle, Pacific Bayberry	S	FACW	Myricaceae	R	1
Mucronea californica Benth. var. californica	California Spineflower	AH		Polygonaceae	U, 4.2	6
Mucronea perfoliata (Gray) A.A. Heller var. perfoliata	Perfoliate Spineflower	AH		Polygonaceae	R	5
Muhlenbergia andina (Nuttall) A. Hitchc.	Foxtail Muhly	PG	FAC	Poaceae	R	2
Muhlenbergia asperifolia (Nees & Meyen) Parodi	Scratchgrass	PG	FACW	Poaceae	S	24
Muhlenbergia californica Vasey	California Muhly	PG	(FACW)	Poaceae	R	1
Muhlenbergia filiformis (Thurb. ex S. Watson) Rydb. var. filiformis	Pull-Up Muhly	AG	FACW	Poaceae	R	4
Muhlenbergia microsperma (DC.) Kunth	Littleseed Muhly	AG		Poaceae	R	7
Muhlenbergia richardsonis Trin.	Mat Muhly	PG	FAC	Poaceae	R	1
Muhlenbergia rigens (Benth.) Hitchc.	Deer Grass	PG	FAC	Poaceae	S	38
Muilla maritima (Torrey) S. Watson	Common Muilla	PG		Themidaceae	0	55
Myoporum laetum Forster f. *	Myoporum, Wax Myrtle	S	FACU	Myoporaceae	R	5
Myosurus minimus L.	Common Mousetails	AH	OBL	Ranunculaceae	R	5
<i>Myosurus minimus</i> ssp. <i>apus</i> (Greene) G. R. Campb.	Little Mouse Tail	AH	OBL	Ranunculaceae	R, 3.1	0



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Myriophyllum aquaticum (Vell. Conc.) Verdc. *	Parrot's Feather	PH	OBL	Haloragaceae	R	1
Myriopteris [Cheilanthes] clevelandii D.C. Eaton.	Cleveland Lip-fern	PF		Pteridaceae	R	3
<i>Myriopteris</i> [<i>Cheilanthes</i>] <i>cooperae</i> (D.C. Eaton) Grusz & Windham	Mrs. Cooper Lip-fern	PF		Pteridaceae	R	1
Myriopteris [Cheilanthes] covillei (Maxon) A. Löve & D. Löve	Coville Lip-fern	PF	-	Pteridaceae	С	45
Najas guadalupensis (Sprengel) Magnus ssp. guadalupensis	Common Water- nymph, Southern Naiad	AG	OBL	Hydrocharitaceae	R	3
Najas marina L.	Spiny Naiad	AG	OBL	Hydrocharitaceae	R	1
Nama californica (A. Gray) J.D. Bacon	Lemmon California Waterleaf	AH		Namaceae	U	10
Nama demissa A. Gray	Purplemat	AH		Namaceae	R	1
Nasturtium officinale R. Br. *	Water Cress	РН	OBL	Brassicaceae	U	25
Navarretia atractyloides (Benth.) Hook. & Arn.	Navarretia	AH	-	Polemoniaceae	U	10
Navarretia capillaris (Kellogg) Kuntze	Miniature or Smooth- leaved Gilia	AH	FAC	Polemoniaceae	R	3
Navarretia fossalis Moran	Moran's navarretia, Spreading navarretia	AH	OBL	Polemoniaceae	U, 1B.1	6
Navarretia hamata E. Greene ssp. hamata	Skunk Navarretia	AH		Polemoniaceae	R	5
Navarretia hamata ssp. parviloba A.G. Day	Skunk Navarretia	AH		Polemoniaceae	R	1
Navarretia intertexta (Benth.) Hook.	Needleleaf Navarretia	AH	FACW	Polemoniaceae	R	3
Navarretia mellita E. Greene	Sticky Navarretia	AH	FAC	Polemoniaceae	R	2
Navarretia mitracarpa Greene	Mitrefruit Pincushionplant	AH		Polemoniaceae	R	3



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
<i>Navarretia ojaiensis</i> Elvin, J.M. Porter & L.A. Johnson	Ojai Navarretia	AH		Polemoniaceae	U, 1B.1	8
Navarretia peninsularis Greene	Southern California Navarretia	AH	FAC	Polemoniaceae	U, 1B.2	7
Navarretia setiloba Coville	Paiute mountain pincushionplant	AH		Polemoniaceae	U, 1B.1	9
Nemacaulis denudata Nutt. var. denudata	Woollyheads, Cottonheads	AH		Polygonaceae	R	3
Nemacladus capillaris Greene	Common Nemacladus	AH		Campanulaceae	R	1
Nemacladus gracilis Eastw.	Slender Nemacladus	AH		Campanulaceae	R, 4.3	2
Nemacladus longiflorus var. breviflorus McVaugh	Short-flowered Nemacladus	AH		Campanulaceae	R	3
Nemacladus orientalis (McVaugh) Morin	Eastern Glandular Nemacladus	AH		Campanulaceae	R	2
Nemacladus pinnatifidus	Combleaf Threadplant	AH		Campanulaceae	R	3
Nemacladus ramosissimus Nuttall	Nuttall's Nemacladus	AH		Campanulaceae	U	11
Nemacladus secundiflorus var. robbinsii Morin	Robbins' Nemacladus	AH		Campanulaceae	R, 1B.2	6
Nemacladus sigmoideus G.T. Robbins	Thread Stem	AH		Campanulaceae	U	17
Nemophila menziesii var. integrifolia Parish	Baby Blue-eyes	AH		Hydrophyllaceae	0	25
Nemophila menziesii Hook. & Arn. var. menziesii	Baby Blue-eyes	AH		Hydrophyllaceae	0	32
Nemophila parviflora Douglas ex Bentham var. parviflora	Smallflower Nemophila	AH		Hydrophyllaceae	R	1
Nemophila parviflora var. quercifolia (Eastw.) Chandler	Oakleaf Nemophila	AH		Hydrophyllaceae	R	2
Nemophila pedunculata Benth.	Little-foot or Meadow Baby Blue- eyes	AH	FAC	Hydrophyllaceae	R	7



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Nemophila pulchella var. fremontii (A.D.E. Elmer) Constance	Fremont Baby Blue- eyes	AH		Hydrophyllaceae	R	5
Nemophila spatulata Coville	Spoon-shaped Baby Blue-eyes	AH		Hydrophyllaceae	U	7
Nerium oleander L. *	Oleander	S	(FACU)	Apocynaceae	R	5
Nicotiana acuminata var. mulitflora (Phil.) Reiche *	Many Flowered Tobacco	AH		Solanaceae	R	2
Nicotiana attenuata Torrey	Coyote Tobacco	AH	FACU	Solanaceae	С	47
Nicotiana glauca Graham *	Tree Tobacco	S	FAC	Solanaceae	С	61
Nicotiana quadrivalis Pursh var. quadrivalis	Indian Tobacco	AH	FACU	Solanaceae	S	22
Nicotiana sylvestris Speg. & Comes *	Tobacco	PH		Solanaceae	R	1
Nigella damascena L.*	Love-in-a-mist	AH		Ranunculaceae	R	2
Noltea africana (L.) Endl. *	Soap Dogwood	S		Rhamnaceae	R	1
Notholaena californica D.C. Eaton ssp. californcia	California Cloak Fern	PF		Pteridaceae	R	3
Notholithocarpus densiflorus (Hook. & Arn.) Manos, C.H. Cannon, & S. Oh var. densiflorus	Tanbark Oak	S/T		Fagaceae	R	4
Nuttallanthus texanus (Scheele) D.A. Sutton	Toadflax	AH		Plantaginaceae	R	2
Oenothera biennis L. *	Common Evening- primrose	BH	FACU	Onagraceae	R	1
Oenothera californica ssp. avita W.M. Klein	Desert California Evening-primrose	РН		Onagraceae	R	1
Oenothera californica (S. Watson) S. Watson ssp. californica	California Evening- primrose	PH		Onagraceae	0	37
Oenothera deltoides ssp. cognata (Jepson) Klein	Devil's Lantern, Lion-in-a-Cage	AH		Onagraceae	R	1



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Oenothera deltoides Torr. & Frém. ssp. deltoides	Birdcage Evening Primrose	AH		Onagraceae	U	6
Oenothera elata ssp. hirsutissima (Gray) W. Dietr.	Great Marsh Evening-primrose	BH	FACW	Onagraceae	S	20
<i>Oenothera elata</i> ssp. <i>hookeri</i> (Torrey & A. Gray) W. Dietr.	Hooker Coast Evening-primrose	BH	FACW	Onagraceae	R	1
Oenothera primiveris A. Gray	Yellow Desert Evening Primrose	PH		Onagraceae	R	1
Oenothera speciosa Nuttall *	Common Evening- primrose	PH		Onagraceae	R	1
Olea europaea L. *	European Olive	Т		Oleaceae	R	2
Oligomeris linifolia (M. Vahl) J.F. Macbr.	Narrowleaf Oligomeris	AH		Resedaceae	R	1
<i>Opuntia basilaris</i> Engelm. & J. Bigelow var. <i>basilaris</i>	Beavertail Cactus	S		Cactaceae	S	52
<i>Opuntia basilaris</i> var. <i>brachyclada</i> (Griffiths) Munz	Short joint beavertail	S		Cactaceae	S, 1B.2	24
<i>Opuntia basilaris</i> var. <i>treleasei</i> (J. M. Coult.) Toumey	Bakersfield Cactus	S		Cactaceae	R, CT, 1B.1	1
<i>Opuntia ficus-indica</i> (L.) Miller *	Indian Fig	S		Cactaceae	R	1
Opuntia littoralis (Engelm.) Cockerell	Coastal Prickly Pear	S		Cactaceae	R	3
<i>Opuntia oricola</i> Philbr.	Round-pad Prickly Pear	S	·	Cactaceae	R	1
Opuntia phaeacantha Engelm.	Engelmann Prickly Pear	S		Cactaceae	R	1
Orcuttia californica Vasey	California Orcutt Grass	AG	OBL	Poaceae	U, 1B.2, FE, SE	6
Osmadenia tenella Nuttall	Osmadenia	AH		Asteraceae	R	1
Osmorhiza berteroi DC.	Mountain Sweetroot	PH		Apiaceae	R	2



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Osmorhiza brachypoda Torrey	Sweet Cicely	PH		Apiaceae	О	23
Oxalis albicans Kunth ssp. albicans	Radishroot Woodsorrel	РН		Oxalidaceae	R	1
Oxalis albicans ssp. pilosa (Nuttall) G. Eiten	Hairy White Wood Sorrel	РН		Oxalidaceae	U	9
Oxalis corniculata L. *	Creeping Wood Sorrel	РН	FACU	Oxalidaceae	R	2
Oxalis latifolia Kunth *	Broadleaf Woodsorrel	PH		Oxalidaceae	R	1
Oxalis pes-caprae L. *	Bermuda Buttercup	PH		Oxalidaceae	R	1
<i>Packera breweri</i> (Burtt Davy) W.A. Weber & Löve	Brewer Butterweed or Groundsel	PH		Asteraceae	S	20
<i>Packera ionophylla</i> (E. Greene) W.A. Weber & Á. Löve	Tehachapi Ragwort	PH	-	Asteraceae	R	2
Paeonia californica Nuttall	California Peony	PH		Paeoniaceae	S	16
Panicum capillare L. ssp. capillare	Witchgrass	AG	FACU	Poaceae	R	4
Panicum dichotomiflorum Michx. ssp. dichotomiflorum *	Fall Panicgrass, Sutumn Millet	AG		Poaceae	R	1
Panicum mileaceum L. ssp. miliaceum *	Broom Corn Millet	PG		Poaceae	R	1
Papaver californicum Gray	Wind or Fire Poppy	AH		Papaveraceae	R	2
Papaver heterophyllum (Bentham) Greene	Wind Poppy	AH		Papaveraceae	R	8
Parapholis incurva (L.) C.E. Hubb. *	Sickle Grass	AG	FAC	Poaceae	R	4
Parietaria hespera B.D. Hinton var. hespera	Southwest Pellitory	AH	FACU	Urticaceae	U	12
Parietaria pensylvanica Muhlenberg ex Wildenow	Pennsylvania Pellitory	AH	FACU	Urticaceae	R	2



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Parthenocissus inserta (Kerner) K. Fritsch [P. vitacea] *	Woodbine	PV	FACU	Vitaceae	U	6
Paspalum dilatatum Poiret *	Dallis Grass	PG	FAC	Poaceae	U	10
Paspalum distichum L.	Joint Dallis Grass or Knotgrass	PG	FACW	Poaceae	R	5
Paspalum vaginatum Sw. *	Seashore Paspalum	PG	FACW	Poaceae	R	1
Pectocarya anisocarpa Veno	Unequal-fruited Pectocarya	AH		Boraginaceae	S	12
Pectocarya heterocarpa I.M. Johnston	Two-faced Pectocarya	AH		Boraginaceae	R	2
<i>Pectocarya linearis</i> ssp. <i>ferocula</i> (I.M. Johnston) Thorne	Linear Pectocarya	AH		Boraginaceae	О	29
Pectocarya penicillata (Hook. & Arn.) A. DC.	Winged Pectocarya	AH		Boraginaceae	С	63
Pectocarya recurvata I.M. Johnst.	Arched-nut Pectocarya	AH		Boraginaceae	U	9
Pectocarya setosa Gray	Setose Pectocarya	AH		Boraginaceae	С	64
Pedicularis densiflora Hook.	Indian Warrior	PH		Orobanchaceae	R	4
Pedicularis semibarbata Gray	Pine-woods Lousewort	PH		Orobanchaceae	R	23
Pediomelum californicum (S. Watson) Rydb.	California Indian Breadroot	PH		Fabaceae	R	6
Pediomelum castoreum (S. Watson) Rydb.	Desert Indian Breadroot	PH		Fabaceae	R	1
Pellaea andromedifolia (Haulfuss) Fee	Coffee Fern	PF		Pteridaceae	С	57
Pellaea mucronata (D.C. Eaton) D.C. Eaton var. californica (Lemmon) Munz & I.M. Johnst.	California Cliffbrake	PF		Pteridaceae	R	3
Pellaea mucronata (D.C. Eaton) D.C. Eaton in Emory var. mucronata	Birdsfoot Cliffbrake or Fern	PF		Pteridaceae	U	35



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Pennisetum clandestinum Chiov. *	Kikuyu Grass	PG	(FACU)	Poaceae	R	1
Pennisetum setaceum Forskal *	African Fountain Grass	PG		Poaceae	U	8
Pennisetum villosum R.Br. *	Fountain Grass, Feather Top	PG		Poaceae	R	2
Penstemon centranthifolius Bentham	Scarlet Bugler	РН		Plantaginaceae	С	116
Penstemon Xdubius Davids. (P. centranthifolius X P. grinnellii)	Doubtful Penstemon	PH		Plantaginaceae	R	1
Penstemon gracilentus A. Gray	Slender Beardtongue	PH		Plantaginaceae	R	1
Penstemon grinnellii Eastwood var. grinnellii	Grinnell Beardtongue	РН		Plantaginaceae	S	21
Penstemon grinnellii var. scrophularioides (M.E. Jones) N. Holmgren	Figwort Beardtongue	PH		Plantaginaceae	S	26
Penstemon heterophyllus var. australis Munz & I.M. Johnston	Southern Mountain Penstemon	РН		Plantaginaceae	S	22
Penstemon heterophyllus Lindley var. heterophyllus	Mountain Penstemon	PH		Plantaginaceae	С	50
Penstemon incertus Brandegee	Blue Penstemon	РН		Plantaginaceae	R	1
Penstemon labrosus (A. Gray) Hooker f.	San Gabriel Penstemon	РН		Plantaginaceae	С	70
Penstemon laetus Gray var. laetus	Gay Penstemon	PH		Plantaginaceae	U	7
Penstemon palmeri A. Gray var. palmeri	Palmer's Penstemon	РН		Plantaginaceae	R	2
Penstemon rostriflorus Kellogg	Bridges Penstemon	РН		Plantaginaceae	S	12
Penstemon speciosus Lindley	Showy Beardtongue	S		Plantaginaceae	S	17
Penstemon Xspeciosus (P. centranthifolius X P. speciosus)	Hybrid Showy Beardtongue	S		Plantaginaceae	R	1



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Penstemon spectabilis Thurber var. [ssp.] spectabilis	Royal Penstemon	S		Plantaginaceae	R	2
Penstemon spectabilis var. [ssp.] subviscosis (Keck) McMinn	Sticky Royal Penstemon	S		Plantaginaceae	R	1
Pentachaeta fragilis Brandegee	Fragile Pentachaeta	AH	FAC	Asteraceae	R, 4.3	2
Pentagramma triangularis (Kaulf.) Yatskievych,Windham,& E.Wollenweber ssp. triangularis	Goldenback Fern	PF		Pteridaceae	С	47
Perideridia californica (Torr.) A. Nelson & J. F. Macbr.	California Yampah	РН	FAC	Apiaceae	R	1
Perideridia gairdneri (Hook. & Arn.) Mathias ssp. gairdneri	Gairdner Yampah	PH	FAC	Apiaceae	R, 4.2	3
<i>Perideridia parishii</i> ssp. <i>latifolia</i> (Gray) Chuang & Constance	Parish Yampah	PH	FAC	Apiaceae	R	5
<i>Perideridia pringlei</i> (J.M. Coulter & Rose) A. Nelson & J.F. Macbr.	Adobe or Pringle Yampah	РН		Apiaceae	U, 4.3	12
Peritoma arborea var. angustata (Parish) H.H. Iltis	Slender Bladderpod	S		Cleomaceae	R	1
Peritoma arborea (Nutt.) H.H. Iltis var. arborea	Bladderpod	S		Cleomaceae	С	49
Peritoma arborea var. globosa (Coville) H.H. Iltis	Bladderpod	S		Cleomaceae	U	15
Perityle emoryi Torrey	Rock Daisy	РН		Asteraceae	R	1
Persicaria amphibia (L.) Delarbre	Kelp, Water- Smartweed	РН	OBL	Polygonaceae	R	6
Persicaria hydropiperoides (Michaux) Small	Mild Water Pepper, Water Smartweed	РН	OBL	Polygonaceae	U	6
Persicaria lapathifolia (L.) Delarbre	Willow Weed	AH	FACW	Polygonaceae	U	9
Persicaria maculosa Gray [Polygonum persicaria L.] *	Lady's Thumb, Spotted Persicaria	AH	(FACW)	Polygonaceae	R	1
Persicaria punctata (Elliott) Small	Dotted Smartweed	A/PH	OBL	Polygonaceae	R	1



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Petalonyx thurberi A. Gray var. thurberi	Thurber's Sandpaper Plant	S		Loasaceae	S	11
Petunia parviflora Juss. *	Petunia	AH	(FACW)	Solanaceae	R	3
Phacelia affinis Gray var. affinis	Limestone Phacelia	AH		Hydrophyllaceae	S	12
Phacelia austromontana J.T. Howell	Low Phacelia	AH		Hydrophyllaceae	U	7
Phacelia bicolor Torrey ex S. Watson	Bicolored Phacelia	AH		Hydrophyllaceae	R	4
Phacelia brachyloba (Benth.) Gray	Short-lobed Phacelia	AH		Hydrophyllaceae	С	62
Phacelia campanularia A. Gray var. campanularia	Desert Bluebells	AH		Hydrophyllaceae	R	5
Phacelia campanularia var. vasiformis (G.W. Gillett) Walden & R. Patt.	Desert Bluebells	AH		Hydrophyllaceae	R	2
Phacelia cicutaria Greene var. cicutaria	Caterpillar Phacelia	AH		Hydrophyllaceae	S	13
Phacelia cicutaria var. hispida (A. Gray) J.T. Howell	Hispid Caterpillar Phacelia	AH		Hydrophyllaceae	С	133
Phacelia ciliata Benth. var. ciliata	Ciliate Phacelia	AH		Hydrophyllaceae	S	15
Phacelia congdonii Greene	Congdon Phacelia	AH		Hydrophyllaceae	R	1
Phacelia crenulata var. minutiflora (J.W. Voss ex Munz) Jepson	Small-flowered Crenulate Phacelia	AH		Hydrophyllaceae	R	1
Phacelia cryptantha E. Greene	Forget-Me-Not Phacelia	AH		Hydrophyllaceae	U	12
Phacelia curvipes S. Watson var. curvipes	Washoe Phacelia	AH		Hydrophyllaceae	S	20
Phacelia davidsonii Gray	Davidson Phacelia	AH		Hydrophyllaceae	С	40
Phacelia distans Benth.	Wild Heliotrope	AH	OBL	Hydrophyllaceae	С	86



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Phacelia douglasii (Benth.) Torrey var. douglasii	Douglas Phacelia	AH		Hydrophyllaceae	Ο	29
Phacelia egena (Brand) J.T. Howell	Rock Phacelia	PH		Hydrophyllaceae	С	67
Phacelia exilis (Gray) G.J. Lee	Transverse Range Phacelia	AH	-	Hydrophyllaceae	U, 4.3	9
Phacelia fremontii Torrey	Fremont Phacelia	AH		Hydrophyllaceae	С	50
Phacelia grandiflora (Benth.) Gray	Large-flowered Phacelia	AH		Hydrophyllaceae	R	6
Phacelia grisea Gray	White-flowered Phacelia	AH		Hydrophyllaceae	R	2
Phacelia hastata var. compacta (Brand) Cronquist	Compact Hastate Phacelia	PH		Hydrophyllaceae	R	1
Phacelia hastata Douglas ex Lehm. var. hastata	Hastate Phacelia	PH		Hydrophyllaceae	R	2
Phacelia heterophylla var. virgata (Greene) R.D. Dorn	Virgate Varileaf Phacelia	BH	-	Hydrophyllaceae	R	1
Phacelia hubbyi (J.F. Macbr.) L.M. Garrison	Hubby Caterpillar Phacelia	AH		Hydrophyllaceae	S, 4.2	12
Phacelia humilis var. dudleyi J. Howell	Dudley Phacelia	AH	-	Hydrophyllaceae	R	1
Phacelia imbricata Greene ssp. imbricata	Mountain Phacelia	PH	-	Hydrophyllaceae	С	46
Phacelia imbricata ssp. patula (Brand) Heckard [P. oreopola ssp. oreopola]	Mountain Phacelia	PH		Hydrophyllaceae	R	8
Phacelia longipes Gray	Long-stalked Phacelia	AH		Hydrophyllaceae	О	34
Phacelia minor (Harvey) Thellung	Wild Canterberry Bell	AH		Hydrophyllaceae	S	21
Phacelia mohavensis A. Gray	Mojave Phacelia	AH		Hydrophyllaceae	U, 4.3	6
Phacelia mutabilis Greene	Changeable Phacelia	AH	-	Hydrophyllaceae	R	2



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Phacelia parryi Torrey	Parry Phacelia	AH		Hydrophyllaceae	U	12
Phacelia platyloba A. Gray	Phacelia	AH		Hydrophyllaceae	R	2
Phacelia ramosissima var. austrolittoralis Munz	South Coast Branching Phacelia	PH	FACU	Hydrophyllaceae	R, 3.2	2
Phacelia ramosissima var. latifolia (Torrey) Cronq.	Branching Phacelia	PH	FACU	Hydrophyllaceae	U	9
Phacelia ramosissima Lehm. var. ramosissima	Branching Phacelia	PH	FACU	Hydrophyllaceae	О	46
Phacelia ramosissima var. subsinuata (Greene) J.F. Macbr.	Wavyleaf Branching Phacelia	РН	FACU	Hydrophyllaceae	R	1
Phacelia rattanii A. Gray	Brand Phacelia	AH		Hydrophyllaceae	R	1
Phacelia tanacetifolia Benth.	Tansy Phacelia	AH		Hydrophyllaceae	Ο	30
Phacelia vallis-mortae J.W. Voss	Death Valley Phacelia	AH		Hydrophyllaceae	R	2
Phacelia viscida var. albiflora (Nuttall) A. Gray	White-flowered Viscid Phacelia	AH		Hydrophyllaceae	U	7
Phacelia viscida (Bentham) Torrey var. viscida	Viscid Phacelia	AH		Hydrophyllaceae	С	43
Phalaris aquatica L. *	Harding Canarygrass	PG	FACW	Poaceae	R	2
Phalaris canariensis L. *	Canarygrass	AG	FACU	Poaceae	R	4
Phalaris lemmonii Walter	Lemmon Canarygrass	AG	FACW	Poaceae	R	1
Phalaris minor Retz *	Littleseed or Mediterranean Canarygrass	AG		Poaceae	U	10
Phalaris paradoxa L. *	Hood Canarygrass	AG	FAC	Poaceae	R	1
Phelipanche ramosa L. *	Yellow Broom Rape	PH		Orobanchaceae	R	1



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Phleum pratense L. *	Cultivated Timothy Grass	PG	(FAC)	Poaceae	R	3
Phlox austromontana Coville	Spreading Phlox	PH		Polemoniaceae	U	16
Phlox caespitosa Nuttall	Rigid Mat Phlox	PH		Polemoniaceae	R	1
Phlox diffusa Benth.	Mat Phlox	PH		Polemoniaceae	U	6
Phlox hoodii ssp. canescens (T. & G.) Wherry	Fuzzy Hood Phlox	PH		Polemoniaceae	R	3
Phoenix canariensis Chabaud *	Canary Island Date Palm	Т	(FAC)	Arecaceae	R	3
Pholistoma auritum (Lindley) Lilja var. auritum	Blue Fiesta Flower	AH		Hydrophyllaceae	S	24
Pholistoma membranaceum (Benth.) Constance	White Fiesta Flower	AH		Hydrophyllaceae	S	16
Pholistoma racemosum (Nutt. ex Gray) Constance	South Coast Fiesta Flower	B/PH		Hydrophyllaceae	R	1
Phoradendron bolleanum (Seem.) Eichler [P. pauciflorum]	Fir Mistletoe	PH		Viscaceae	S	39
Phoradendron juniperum A. Gray	Incense-cedar Mistletoe	PH		Viscaceae	R	3
Phoradendron leucarpum ssp. macrophyllum (Engelm.) J.R. Abbott & R.L. Thomps. [P. macrophyllum]	Bigleaf Mistletoe	PH		Viscaceae	S	23
Phoradendron leucarpum ssp. tomentosum (DC.) J.R. Abbott & R.L. Thomps. [P. villosum]	Oak or Hairy Mistletoe	РН		Viscaceae	С	55
Phragmites australis (Cav.) Steudel	Common Reed	PG	FACW	Poaceae	R	4
Phyla nodiflora (L.) E. Greene var. nodiflora	Common Frog-fruit	РН	FACW	Verbenaceae	R	2
Physalis philadelphica Lam. *	Tomatillo	AH		Solanaceae	R	2
Pickeringia montana Nutt. var. montana	Chaparral Pea	S		Fabaceae	R	7



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Pilularia americana A. Braun	American Pillwort	PF	OBL	Marsiliaceae	R	2
Pinus attenuata Lemmon	Knobcone Pine	Т		Pinaceae	U	3
Pinus canariensis C. Smith *	Canary Island Pine	Т		Pinaceae	R	2
Pinus coulteri D. Don	Coulter Pine	Т		Pinaceae	R	18
Pinus flexilis E. James	Limber Pine	Т		Pinaceae	R	20
Pinus halepensis Miller *	Allepo Pine	Т		Pinaceae	R	11
Pinus jeffreyi Greville & Balfour	Jeffrey Pine	Т		Pinaceae	С	192
Pinus lambertiana Douglas	Sugar Pine	Т		Pinaceae	S	23
Pinus monophylla Torrey & Frémont	Singleleaf Pinyon Pine	Т		Pinaceae	S	99
Pinus muricata D. Don *	Bishop Pine	Т		Pinaceae	R	2
Pinus ponderosa var. pacifica J.R. Haller & N.J. Vivrette	Pacific Ponderosa Pine	Т	FACU	Pinaceae	0	25
Pinus sabiniana Douglas	Foothill or Gray Pine	Т		Pinaceae	S	25
Pinus torreyana Carrière ssp. torreyana *	Torrey Pine	Т		Pinaceae	R, 1B.2	1
Pinus wallichiana A.B. Jacks *	Bhutan Pine	Т		Pinaceae	R	1
Piperia elongata Rydb.	Dense-flowered Rein Orchid	PG		Orchidaceae	R	2
Piperia michaelii (Green) Rydb.	Michael's Rein Orchid	PG		Orchidaceae	R, 4.2	1
Pistacia atlantica Desf. *	Pistachio	Т		Anacardiaceae	R	1



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
<i>Pittosporum crassifolium</i> Banks & Sol. Ex A. Cunn. *	Stiffleaf Cheesewood	T/S		Pittosporaceae	R	1
Plagiobothrys acanthocarpus (Piper) I.M. Johnston	Adobe Popcornflower	AH	OBL	Boraginaceae	R	2
Plagiobothrys arizonicus (Gray) Gray	Arizona Popcornflower	AH	-	Boraginaceae	С	62
Plagiobothrys bracteatus (Howell) I.M. Johnst.	Bracted Popcornflower	AH		Boraginaceae	R	6
Plagiobothrys canescens Benth. var. canescens	Valley or Bracted Popcornflower	AH		Boraginaceae	С	30
<i>Plagiobothrys canescens</i> var. <i>catalinensis</i> (A. Gray) Jepson	Santa Catalina Popcornflower	AH		Boraginaceae	R	1
Plagiobothrys collinus var. fulvescens (I.M. Johnston) Higgins	Popcornflower	AH		Boraginaceae	R	5
Plagiobothrys collinus var. gracilis (I.M. Johnst.) Higgins	Slender California Popcornflower	AH		Boraginaceae	R	3
Plagiobothrys hispidulus (E. Greene) I.M. Johnston	Hispid Popcornflower	AH	FACW	Boraginaceae	R	1
Plagiobothrys humistratus (E. Greene) I.M. Johnston	Low Popcornflower	AH	OBL	Boraginaceae	R	3
Plagiobothrys leptocladus (E. Greene) I.M. Johnston	Alkali Popcornflower	AH	OBL	Boraginaceae	U	6
Plagiobothrys nothofulvus (A. Gray) A. Gray	Rusty Popcornflower	AH	FAC	Boraginaceae	0	25
Plagiobothrys tenellus (Nuttall) A. Gray	Slender Popcornflower	AH	FACU	Boraginaceae	R	1
Plagiobothrys trachycarpus (A. Gray) I.M. Johnst.	Rough-nutet Popcornflower	AH	FACW	Boraginaceae	R	1
Plagiobothrys undulatus (Piper) I.M. Johnston	Undulate Popcornflower	AH	OBL	Boraginaceae	R	1
Plantago arenaria Waldst. & Kit. *	Sand Plantain	AH	UPL	Plantaginaceae	R	1
Plantago coronopus L.*	Cut-leaved Plantain	A/BH	FACW	Plantaginaceae	R	4



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Plantago erecta E. Morris	California Plantain	AH		Plantaginaceae	S	16
Plantago lanceolata L. *	Narrowleaf or English Plantain, Ribgrass	РН	FAC-	Plantaginaceae	R	9
Plantago major L. *	Broadleaf Plantain	PH	FAC	Plantaginaceae	R	4
Plantago ovata var. fastigiata (Morris) S.C. Meyers & A. Liston	Ovate Plantain	AH	FACU	Plantaginaceae	R	2
Plantago patagonica Jacq.	Patagonia Plantain	AH		Plantaginaceae	R	3
Platanthera dilatata (Pursh) Lindl. Ex L.C. Beck var. leucostachys (Lindl.) Luer [P. leucostachys]	White-flowered Bog- Orchid	PG		Orchidaceae	R	4
Platanthera sparsiflora (S. Watson) Schltr.	Few-flowered Rein Orchid	PG	FACW	Orchidaceae	R	5
Platanus racemosa Nuttall var. racemosa	California or Western Sycamore	Т	FACU	Platanaceae	С	161
Platystemon californicus Benth. [var. californicus]	Cream Cups	AH		Papaveraceae	О	29
Plecostachys serpyllifolia (P.J. Bergius) Hilliard & B.L. Burtt *	Petite-licorace	S	FACU	Asteraceae	R	1
Plectritis ciliosa (Greene) Jepson ssp. ciliosa	Long-spurred Plectritis	AH	FACU	Valerianaceae	R	3
Plectritis ciliosa ssp. insignis (Suksd.) D. Morey	Petite Long-spurred Plectritis	AH	FACU	Valerianaceae	R	5
Pluchea odorata (L.) Cass.	Saltmarsh Fleabane	P/AH	FACW	Asteraceae	R	4
Pluchea sericea (Nutt.) Coville	Arrow Weed	S	FACW	Asteraceae	U	6
Poa annua L. *	Annual Bluegrass	AG	FACU	Poaceae	R	6
Poa bulbosa L. ssp. bulbosa *	Bulbose Bluegrass	PG	FACU	Poaceae	R	2
Poa bulbosa ssp. vivapara (Koeler) Arcang. *	Bulbose Bluegrass	PG	FACU	Poaceae	R	6



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Poa cusickii ssp. epilis (Scribn.) W.A. Weber	Skyline Bluegrass	PG		Poaceae	R	1
Poa howellii Vasey & Scribn.	Howell's Bluegrass	AG		Poaceae	R	1
Poa pratensis L. ssp. pratensis *	Kentucy Bluegrass	PG	FAC	Poaceae	U	11
Poa secunda ssp. juncifolia (Scribner) R. Soreng	Rush Bluegrass	PG	FACU	Poaceae	U	7
Poa secunda J.S. Presl ssp. secunda	One-sided Bluegrass	PG	FACU	Poaceae	С	185
Poa wheeleri Vasey	Wheeler Bluegrass	PG		Poaceae	R	1
Podocarpus macrophyllus (Thunb.) Sweet. *	Yew Plum Pine	Т		Podocarpaceae	R	1
Polemonium micranthum Benth.	Tiny Phlox	AH	FACU	Polemoniaceae	U	6
Polygonum argyrocoleon Steudel ex Kunze *	Silver-sheathed Knotweed	AH	FAC	Polygonaceae	R	4
Polygonum aviculare L. ssp. aviculare *	Common Knotweed, Doorweed	AH	FACW	Polygonaceae	R	7
Polygonum aviculare ssp. depressum Meisner in A.P. DC. & A.L.P.P. DC. *	Common Knotweed, Doorweed	AH	FACW	Polygonaceae	R	1
Polygonum aviculare ssp. neglectum (Besser) Arcangeli *	Neglected Common Knotweed	AH	FACW	Polygonaceae	R	1
Polygonum douglasii E. Greene [ssp. douglasii]	Douglas Knotweed	AH	FACU	Polygonaceae	R	1
Polygonum polygaloides ssp. kelloggii (Greene) J. Hickman	Kellogg Knotweed	AH	FACW	Polygonaceae	R	1
Polygonum ramosissimum Michaux ssp. ramosissimum	Yellow-flowered or Bush Knotweed	AH	FAC	Polygonaceae	R	1
Polygonum sawatchense Small ssp. sawatchense	Sawatch Knotweed	AH	FACU	Polygonaceae	R	3
Polypodium californicum Kaulfuss	California Polypody	PF		Polypodiaceae	О	30



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Polypodium hesperium Maxon	Western Polypody	PF		Polypodiaceae	R	3
Polypogon interruptus Kunth *	Ditch Beardgrass	PG	FACW	Poaceae	R	1
Polypogon maritimus Willd. var. maritimus *	Mediterranean Beardgrass	AG	OBL	Poaceae	R	2
Polypogon monspeliensis (L.) Desf. *	Rabbistsfoot or Annual Beardgrass	AG	FACW	Poaceae	U	86
Polypogon viridis (Gouan) Breistr. *	Green Bentgrass	PG	FACW	Poaceae	S	21
Polystichum imbricans (D.C. Eaton) D.H. Wagner ssp. imbricans	Imbricate Sword Fern	PF		Dryopteridaceae	R	1
Polystichum imbricans ssp. curtum (Ewan) D.H. Wagner	Imbricate Sword Fern	PF		Dryopteridaceae	R	4
Populus fremontii Wats. ssp. fremontii	Fremont Cottonwood	Т	(FACW)	Salicaceae	S	112
Populus nigra L. *	Italian Poplar	Т		Salicaceae	R	2
Populus Xparryi Sargent	Parry Cottonwood	Т	FAC	Salicaceae	R	2
Populus trichocarpa Torrey & A. Gray	Black Cottonwood	Т	FAC	Salicaceae	R	25
Portulaca oleracea L. *	Common Purslane	AH	FAC	Portulacaceae	R	1
Potamogeton foliosus Raf. var. foliosus	Leafy Pondweed	PH	OBL	Potemogetonaceae	U	8
Potamogeton nodosus Poiret	Long-leaved Pondweed	PH	OBL	Potemogetonaceae	R	3
Potamogeton pusillus L.	Small Pondweed	PH	OBL	Potemogetonaceae	R	1
Potentilla biennis Greene	Biennial Cinquifoil	BH	FACW	Rosaceae	U	7
Potentilla gracilis Hook. var. elmeri (Rydb.) Jeps.	Elmer's Cinquefoil	PH	FACW	Rosaceae	R	5



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<i>Potentilla gracilis</i> Hook. var. <i>fastigiata</i> (Nutt.) S. Watson	Slender Cinquefoil	PH	FACW	Rosaceae	R	2
<i>Primula clevelandii</i> (E. Greene) Mast & Reveal var. <i>clevelandii</i>	Cleveland Shooting Star	PH		Primulaceae	R	3
<i>Primula clevelandii</i> var. <i>gracilis</i> (E. Greene) Mast & Reveal	Cleveland Shooting Star	PH		Primulaceae	R	2
Prunus domestica L. *	European Plum	Т		Rosaceae	R	1
Prunus dulcis (Mill.) D. A. Webb *	Domestic Almond	Т		Rosaceae	U	10
Prunus emarginata (Hooker) Walp.	Bitter Cherry	S	FACU	Rosaceae	U	13
Prunus fasciculata (Torr.) A. Gray var. fasciculata	Desert Almond	S		Rosaceae	R	6
Prunus ilicifolia (Nutt.) Walp. ssp. ilicifolia	Hollyleaf Cherry	S		Rosaceae	С	92
Prunus persica (L.) Batsch *	Peach	Т		Rosaceae	R	2
Prunus virginiana var. demissa (Nuttall) Torrey	Western Choke Cherry	S	FAC	Rosaceae	О	30
<i>Pseudognaphalium beneolens</i> (A. Davidson) Anderberg	Coastal Everlasting	B/PH		Asteraceae	U	11
Pseudognaphalium bioletti Anderberg	Bicolored Everlasting	A/BH		Asteraceae	R	10
Pseudognaphalium californicum (DC.) Anderberg	Green Everlasting	A/BH		Asteraceae	S	28
<i>Pseudognaphalium canescens</i> (de Candolle) Anderberg	Wright's Rabbit- tobacco	A/PH	FACU	Asteraceae	R	1
Pseudognaphalium leucocephalum (A.Gray) Anderberg	White or Sonora Everlasting	A/BH	(FACU)	Asteraceae	U, 2.2	12
Pseudognaphalium luteoalbum (L.) Hilliard & B.L. Burtt *	Cudweed Everlasting	AH	FAC	Asteraceae	R	18
Pseudognaphalium microcephalum (Nuttall) Anderberg	White Everlasting	B/PH		Asteraceae	R	24



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Pseudognaphalium ramosissimum (Nutt.) Anderberg	Pink Everlasting	BH		Asteraceae	U	7
Pseudognaphalium stramineum (Kunth) Anderberg	Western Everlasting, Cotton-batting Plant	A/BH	FAC	Asteraceae	R	4
<i>Pseudognaphalium thermale</i> (E.E. Nelson) G.L. Nesom	Wright's Cudweed- everlasting	PH	-	Asteraceae	U	9
Pseudostellaria jamesiana (Torrey) W.A. Weber & R.I. Hartman	False Chickweed	PH		Caryophyllaceae	R	1
Pseudotsuga macrocarpa (Vasey) Mayr	Bigcone Spruce or False Hemlock	Т		Pinaceae	U	29
Psilocarphus brevissimus Nutt. var. brevissimus	Woolly Marbles	AH	FACW	Asteraceae	U	7
Psilocarphus chilensis A. Gray	Round Woolly Marbles	AH	FACW	Asteraceae	R	1
Psilocarphus tenellus Nutt.	Slender Woolly Marbles	AH	OBL	Asteraceae	S	12
Pteridium aquilinum var. pubescens L. Underw.	Western Bracken [Fern]	PF	FACU	Dennstaediaceae	R	5
Pterospora andromedea Nuttall	Woodland Pinedrops	PH		Ericaceae	R	4
Pterostegia drymarioides Fischer & C. Meyer	Fairy Mist	AH		Polygonaceae	С	54
Pulicaria paludosa Link *	Spanish Sunflower	PH	(FACW)	Asteraceae	R	1
Purshia stansburyana (Torr.) Henr.	Stansbury's antelope brush	S		Rosaceae	R	2
<i>Purshia tridentata</i> var. <i>glandulosa</i> (Curran) M.E. Jones	Antelope Brush	S		Rosaceae	U	11
Purshia tridentata (Pursh) DC. var. tridentata	Antelope Bitterbrush	S		Rosaceae	R	1
Pycnanthemum californicum Torr. ex Durand	California Mint	PH	(FACW)	Lamiaceae	R	3
Pyrola aphylla Sm.	Leafless Wintergreen	PH		Ericaceae	R	4



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Pyrola asarifolia Michx. ssp. asarifolia	Bog Wintergreen	PH	FAC	Ericaceae	R	4
Pyrola picta Sm.	White Veined Wintergreen	PH		Ericaceae	R	5
Pyrrocoma racemosa var. sessiliflora (Greene) G.K. Br. & D.J. Keil	Clustered Goldenweed	S	FAC	Asteraceae	R	2
Quercus agrifolia Nee var. agrifolia	Coast Live Oak	Т	(FACU)	Fagaceae	С	164
Quercus Xalvordiana Eastwood [Q. douglasii X Q. john-tuckeri]	Alvord Oak	S/T		Fagaceae	U	7
Quercus berberidifolia Leibm.	California Scrub Oak	S		Fagaceae	С	135
Quercus berberidifolia X Q. engelmannii	Hybrid Oak	S	-	Fagaceae	R	2
Quercus chrysolepis Liebm.	Canyon Live or Goldencup Oak	Т		Fagaceae	С	110
Quercus douglasii H. & A.	Blue Oak	Т		Fagaceae	S	16
<i>Quercus durata</i> var. <i>gabrielensis</i> Nixon & C.H. Mull.	San Gabriel Oak	S		Fagaceae	R, 4.2	1
Quercus garryana var. semota [var. breweri]	Brewer Oregon Oak	S		Fagaceae	S	24
Quercus Xhowellii J.M. Tucker [Q. berberidifolia X Q. garryana]	Howell Oak	S		Fagaceae	R	2
Quercus john-tuckeri K. Nixon & C.H. Muller	Tucker Oak, Desert Scrub Oak	S		Fagaceae	С	136
Quercus Xjolonensis Sarg. [<i>Q. douglasii</i> X <i>Q. lobata</i>]	Jolon Oak	S/T		Fagaceae	R	2
Quercus kelloggii Newberry	Black Oak	Т		Fagaceae	U	25
Quercus lobata Nee	Valley Oak	Т	FACU	Fagaceae	R	9
Quercus Xmorehus Kellogg [Q. kelloggii X Q. wislizeni]	Oracle Oak	Т		Fagaceae	U	7



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Quercus palmeri Engelm.	Palmer Oak	Т		Fagaceae	R	3
Quercus turbinella E. Greene ssp. turbinella	Desert Oak	S		Fagaceae	R, 4.3	2
<i>Quercus wislizeni</i> var. <i>frutescens</i> (Engelm.) E. Murray	Shrubby Interior Live Oak	S	-	Fagaceae	S	60
Quercus wislizeni A. de Candolle var. wislizeni	Interior Live Oak	Т		Fagaceae	S	35
Rafinesquia californica Nutt.	California Rafinesquia or Chicory	AH		Asteraceae	0	61
Rafinesquia neomexicana A. Gray	Desert Chicory	AH		Asteraceae	R	2
<i>Ranunculus alismifolius</i> Geyer ex Benth. var. <i>alismellus</i> A. Gray	Water-plantain Buttercup	AH	FACW	Ranunculaceae	R	1
Ranunculus aquatilis var. diffusus Withering	White Water Crowfoot	AH	OBL	Ranunculaceae	R	1
Ranunculus californicus Bentham var. californicus	California Buttercup	PH	FACU	Ranunculaceae	S	11
<i>Ranunculus canus</i> var. <i>ludovicianus</i> (E. Greene) L.D. Benson	Transverse Ranges Buttercup	PH	FAC	Ranunculaceae	R	1
Ranunculus cymbalaria Pursh	Desert Buttercup	PH	(OBL)	Ranunculaceae	S	17
Ranunculus glaberrimus Hook. var. glaberrimus	Sagebrush Buttercup	PH	FAC	Ranunculaceae	R	1
Ranunculus hebecarpus Hooker & Arnott	Hebe-fruited Buttercup	AH		Ranunculaceae	S	14
Ranunculus muricatus L. *	Spinyfruit Buttercup	A/BH	FACW	Ranunculaceae	R	1
Ranunculus sardous Crantz *	Sardinian Buttercup	A/BH	FACW	Ranunculaceae	R	1
Ranunculus testiculatus Crantz *	Testicular Buttercup	AH		Ranunculaceae	R	2
Rhamnus crocea Nuttall	Spiny Redberry	S		Rhamnaceae	U	11



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Rhamnus ilicifolia Kellogg	Hollyleaf Redberry, Buckthorn	S		Rhamnaceae	С	165
<i>Rhinotropis cornuta</i> var. <i>fishiae</i> (C. Parry) J.R. Abbott	Fish Milkwort	S	(FAC)	Polygalaceae	S, 4.3	32
Rhus aromatica Aiton	Skunkbrush	S	FACU	Anacardiaceae	С	100
Rhus integrifolia (Nutt.) Brewer & S. Watson	Lemonade Berry	S		Anacardiaceae	R	7
<i>Rhus integrifolia</i> (Nutt.) Brewer & S. Watson X <i>R. ovata</i> S. Watson	Lemonade Berry- Sugar Bush Hybrid	S		Anacardiaceae	R	5
Rhus ovata S. Watson	Sugar Bush	S		Anacardiaceae	S	35
Ribes amarum McClatchie var. amarum	Bitter Gooseberry	S		Grossulariaceae	R	5
Ribes aureum Pursh var. aureum	Golden Currant	S	FAC	Grossulariaceae	R	6
<i>Ribes aureum</i> var. <i>gracillimum</i> (Cov. & Britton) Jeps.	Slender Golden Currant	S	FAC	Grossulariaceae	S	12
Ribes californicum Hook. & Arn. var. californicum	California Gooseberry	S		Grossulariaceae	S	15
<i>Ribes californicum</i> var. <i>hesperium</i> (McClatchie) Jeps.	Southern Calif. Gooseberry	S		Grossulariaceae	S	15
Ribes cereum Douglas var. cereum	Wax Currant	S		Grossulariaceae	S	47
Ribes indecorum Eastw.	White-flowered Currant	S		Grossulariaceae	R	5
Ribes lasianthum Greene	Woolly-flowered Gooseberry	S		Grossulariaceae	R	1
Ribes malvaceum Sm. var. malvaceum	Chaparral Currant	S		Grossulariaceae	О	35
Ribes malvaceum var. viridifolium Abrams	Sticky Chaparral Currant	S		Grossulariaceae	U	6
Ribes montigenum McClatchie	Mountain Gooseberry	S		Grossulariaceae	R	2



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Ribes nevadense Kellogg	Mountain Pink Currant	S	FAC	Grossulariaceae	S	16
Ribes quercetorum Greene	Oak Gooseberry	S		Grossulariaceae	С	46
Ribes roezlii Regel var. roezlii	Sierra Gooseberry	S		Grossulariaceae	С	36
Ribes speciosum Pursh	Fuchia-flowered Gooseberry	S		Grossulariaceae	S	12
Ribes velutinum Greene	Plateau Gooseberry	S		Grossulariaceae	S	11
Ricinus communis L. *	Castor Bean	S	FACU	Euphorbiaceae	R	7
Rigiopappus leptocladus Gray	Rigiopappus	AH		Asteraceae	С	32
Robinia neomexicana A. Gray *	New Mexico Locust	S/T		Fabaceae	R, 2B.3	3
Robinia pseudoacacia L. *	Black Locust	Т	FACU	Fabaceae	U	9
<i>Romneya coulteri</i> Harvey	Coulter Matilija Poppy	S		Papaveraceae	U, 4.2	8
Romneya trichocalyx Eastwood	Hairy Matilija Poppy	S		Papaveraceae	0	25
Rorippa curvisiliqua (Hooker) Bessey ex Britton	Curved-pod Watercress	AH	OBL	Brassicaceae	R	5
Rosa californica Cham. & Schltdl.	California Wild Rose	S	FAC	Rosaceae	S	64
<i>Rosa woodsii</i> ssp. <i>gratissima</i> (E. Greene) W.H. Lewis & Ertter var. <i>gratissima</i>	Mojave Wild Rose	S	FACU	Rosaceae	S	11
<i>Rosa woodsii</i> ssp. <i>ultramontana</i> (S. Watson) Roy L. Taylor & MacBryde	Interior Wild Rose	S	FACU	Rosaceae	R	2
Rosmarinus officinalis L. *	Rosemary	S		Lamiaceae	R	1
Rubus bifrons Vest, Steyermärk [Rubus armeniacus Focke] *	Himalayan Blackberry	PV	FACU	Rosaceae	U	8



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Rubus leucodermis Torrey & A. Gray	Whitebark or Western Raspberry	PV	FACU	Rosaceae	U	6
Rubus parviflorus Nuttall	Thimbleberry	S	FAC	Rosaceae	R	3
Rubus pensilvanicus Poiret *	Pensylvania Blackberry	PV	FAC	Rosaceae	R	1
Rubus ursinus Cham. & Schldl.	Pacific Blackberry	PV	FAC	Rosaceae	С	66
Rumex acetosella L. *	Sheep Sorrel	PH	FACU	Polygonaceae	R	2
Rumex californicus Rech. F.	California Dock	PH	FACW	Polygonaceae	U	6
Rumex conglomeratus Murray *	Green, Clustered, or Whorled Dock	PH	FACW	Polygonaceae	R	6
Rumex crispus L. *	Curly Dock	PH	FAC	Polygonaceae	U	15
Rumex dentatus L. *	India or Toothed Dock	PH	FACW	Polygonaceae	R	2
Rumex fueginus Philippi var. fueginus	Golden Dock	PH	FACW	Polygonaceae	R	3
Rumex fueginus var. ovato-cordatus Rech. f.	Oxnard Dock	PH	FACW	Polygonaceae	R, Type	1
Rumex hymenosepalus Torrey	Wild Rhubarb, Canaigre	PH		Polygonaceae	0	24
Rumex obtusifolius L. *	Bitter Dock	PH	FAC	Polygonaceae	R	5
Rumex persicarioides L.	Smartweed Dock	A/BH	FACW	Polygonaceae	R	1
Rumex pulcher L. *	Fiddle dock	PH	FAC	Polygonaceae	R	1
Rumex salicifolius J.A. Weinm. [var. salicifolius]	Willow Dock	PH	FACW	Polygonaceae	S	17
Rumex violascens Reck. f.	Violet Dock	A/BH	FACW	Polygonaceae	R	1



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Rupertia physodes (Hook.) Grimes	Scurf-pea	PH		Fabaceae	R	2
Ruppia cirrhosa (Petagna) Grande	Spiral Wigeon-grass or Ditch-grass	PH	OBL	Potamogetonaceae	R	2
Ruppia maritima L.	Wigeon-grass, Ditch- grass	РН	OBL	Potamogetonaceae	R	2
Sabulina [Minuartia] douglasii (Fenzl ex T. & G.) Dellenb.& Kabereit	Douglas Sandwort	AH		Caryophyllaceae	S	45
Sabulina [Minuartia] pusilla (S. Watson) Dellenb.& Kabereit	Sandwort	AH		Caryophyllaceae	R	7
Sagina decumbens ssp. occidentalis (S. Wats.) G. Crow	Western Pearlwort	AH	FACU	Caryophyllaceae	R	2
Sagina saginoides (L.) H. Karst.	Sagina, Arctic Pearlwort	AH	FACW	Caryophyllaceae	R	3
Salix exigua Nuttall var. exigua	Narrowleaf Willow	S	FACW	Salicaceae	О	40
Salix exigua var. hindsiana (Bentham) Dorn	Hind's Willow	S	FACW	Salicaceae	U	28
Salix gooddingii C. Ball	Goodding Black Willow	Т	FACW	Salicaceae	U	15
Salix laevigata Bebb.	Red Willow	Т	FACW	Salicaceae	С	110
Salix lasiandra Benth. var. lasiandra	Shining [Yellow] Willow	Т	FACW	Salicaceae	S	26
Salix lasiolepis Benth. var. lasiolepis	Arroyo Willow	Т	FACW	Salicaceae	С	133
Salix melanopsis Nuttall	Dusky Willow	S	OBL	Salicaceae	R	1
Salsola australis R. Br. *	Australian Thistle	AH	(FACU)	Chenopodiaceae	R	3
Salsola gobicola Iljin *	Gobi Thistle	AH		Chenopodiaceae	R	1
Salsola paulsenii Litv. *	Barbwire Thistle	AH		Chenopodiaceae	R	2



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Salsola tragus L. *	Russian Thistle, Tumbleweed	AH	FACU	Chenopodiaceae	S	35
<i>Saltugilia australis</i> (Mason & A. Grant) L.A. Johnson	Southern Woodland- gilia	AH		Polemoniaceae	0	22
Saltugilia latimeri T.L. Weese & L.A. Johson	Latimer's Woodland- gilia	AH		Polemoniaceae	R, 1B.2	1
Saltugilia splendens ssp. grantii (Brand) L.A. Johnson	Grant's Woodland- gilia	AH		Polemoniaceae	R	4
Saltugilia splendens (H. Mason & A. Grant) L.A. Johnson ssp. splendens	Splendid Woodland- gilia	AH		Polemoniaceae	Ο	25
Salvia apiana Jepson var. apiana	White Sage	S		Lamiaceae	С	108
Salvia apiana Jeps. X Salvia leucophylla E. Greene	Hybrid White Sage	S		Lamiaceae	R	1
Salvia azurea var. grandiflora Bentham *	Prairie Sage	РН		Lamiaceae	R	1
Salvia Xbernardina Parish ex Greene [S. columbariae X S. mellifera]	Bernard's Sage	S		Lamiaceae	R	1
Salvia carduacea Benth.	Thistle Sage	PH		Lamiaceae	О	20
Salvia columbariae Benth.	Chia	AH		Lamiaceae	С	161
Salvia dorrii (Kellogg) Abrams var. dorrii	Desert Sage	S		Lamiaceae	U	10
Salvia dorrii var. pilosa (Gray) Strachan & Reveal	Pilose Desert Sage	S		Lamiaceae	0	25
Salvia leucophylla Greene	Purple Sage	S		Lamiaceae	С	139
Salvia mellifera Greene	Black Sage	S		Lamiaceae	С	159
Salvia spathacea Greene	Hummingbird Sage	PH		Lamiaceae	U	6
Sambucus mexicana C. Presl ex DC.	Blue Elderberry	S	FAC	Adoxaceae	С	133



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Sanicula arguta J. Coulter & Rose	Southern California Sanicle	PH	-	Apiaceae	R	1
Sanicula bipinnata Hooker & Arnott	Poison Sanicle	PH	-	Apiaceae	R	10
Sanicula bipinnatifida Hook.	Purple Sanicle	PH	-	Apiaceae	R	1
Sanicula crassicaulis Poepp. ex DC. var. crassicaulis	Pacific Sanicle, Snakeroot	PH		Apiaceae	С	43
Sanicula graveolens Peopp. ex DC.	Sanicle	PH	-	Apiaceae	R	2
Sanicula tuberosa Torrey	Tuberose Sanicle	PH		Apiaceae	S	14
Sarcodes sanguinea Torrey	Snow Plant	PH		Ericaceae	R	8
Saussurea americana D. Eaton	American Sawwort	PH	FACW	Asteraceae	R, 2B.2	1
Schinus molle L. *	Peruvian Pepper Tree	Т	FACU	Anacardiaceae	S	23
Schinus terebenthifolius Raddi *	Brazilian Pepper Tree	Т	FAC	Anacardiaceae	R	1
Schismus arabicus Nees *	Arabian Grass, Abu Mashi	AG		Poaceae	U	9
Schismus barbatus (L.) Thell. *	Mediterranean Grass	AG		Poaceae	О	30
Schoenoplectus acutus var. occidentalis (S. Watson) S.G. Smith	Viscid Tule	PG	OBL	Cyperaceae	R	8
Schoenoplectus americanus (Pers.) Volkart ex Schinz & R. Keller	American Bulrush	PG	OBL	Cyperaceae	R	5
<i>Schoenoplectus californicus</i> (C. Meyer) Soják, Čas. Nár.	California Bulrush	PG	OBL	Cyperaceae	U	9
Schoenoplectus pungens var. longispicatus (Britton) S.G. Smith	Common Threesquare	PG	OBL	Cyperaceae	S	11
Schoenoplectus saximontanus (Fern.) J. Raynal	Rocky Mountain Bulrush	AG	OBL	Cyperaceae	R	1



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Scirpus microcarpus J. Presl & C. Presl	Small-fruited Bulrush	PG	OBL	Cyperaceae	U	8
Scrophularia californica Cham. & Schldl. ssp. californica	California Figwort	PH	FAC	Scrophulariaceae	R	5
Scrophularia californica ssp. floribunda (E. Greene) Shaw	Many-flowered Figwort	PH	FAC	Scrophulariaceae	R	1
Scutellaria mexicana (Torr.) A.J. Paton	Mexican Bladdersage	S		Lamiaceae	S	11
Scutellaria siphocampyloides Vatke	Skullcap	PH	FACU	Lamiaceae	0	25
Scutellaria tuberosa Benth.	Danny Skullcap	PH		Lamiaceae	U	6
Secale cereale L. *	Secale	AG		Poaceae	U	7
Sedum spathulifolium Hook.	Broadleaf Stonecrop	PH		Crassulaceae	R	4
Selaginella bigelovii Underwood	Bigelow Spike-moss, Bigelow Little Clubmoss	PF		Selaginellaceae	С	66
Selaginella watsonii Underw.	Watson's Spike-moss	PF		Selaginellaceae	R	1
Senecio aphanactis Greene	California Groundsel, Rayless Ragwort	AH		Asteraceae	R, 2B.2	1
Senecio californicus DC.	California Ragwort	AH		Asteraceae	U	8
Senecio cineraria DC. *	Dusty Miller	S		Asteraceae	R	1
<i>Senecio flaccidus</i> var. <i>douglasii</i> (DC.) B.L. Turner & T.M. Barkley	Shrubby Butterweed	S		Asteraceae	С	74
Senecio flaccidus var. monoensis (Greene) B.L. Turner & T.M. Barkley	Mono Butterweed	S		Asteraceae	R	3
Senecio spartioides Torr. & A. Gray	Broom-like Ragweed	PH/S		Asteraceae	R	2
Senecio vulgaris L. *	Common Groundsel, Old Man-in-the- Spring	AH	FACU	Asteraceae	U	12



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Sesuvium verrucosum Raf.	Western Sea Purslane	PH	FACW	Aizoaceae	R	3
Setaria adhaerens (Forssk.) Chiov. *	Bur Bristlegrass	AG	FACU	Poaceae	R	1
Setaria parviflora (Poir.) Kerguelen	Knotroot Bristlegrass	PG	FAC	Poaceae	R	3
Setaria viridis (L.) P. Beauv. var. viridis *	Green Foxtail	AG		Poaceae	R	1
Shepherdia argentea Nutt.	Buffalo Berry, Silver Buffaloberry	S	FACU	Elaeagnaceae	R	2
Sherardia arvensis L. *	Field Madder	AH		Rubiaceae	R	2
Sidalcea malviflora ssp. californica (T. & G.) C.L. Hitchc.	California Globemallow	S	FACW	Malvaceae	R	1
Sidalcea malviflora (DC.) A. Gray ssp. malviflora	Checker mallow	РН	FACW	Malvaceae	R	5
Sidalcea neomexicana Gray	Salt Spring Checkermallow	PH	FACW	Malvaceae	U, 2.2	6
Sidalcea sparsifolia (C.L. Hitchc.) S.R. Hill	Few-leaved Globemallow	S		Malvaceae	О	31
Sidotheca caryophylloides (C. Parry) Reveal	Chickweed Oxytheca	AH		Polygonaceae	R, 4.3	5
Sidotheca trilobata (A. Gray) Reveal	Three-lobed Spineflower	AH		Polygonaceae	U	10
Silene antirrhina L.	Snapdragon Campion, Catchfly	AH		Caryophyllaceae	U	10
Silene bernardina S. Watson	Palmer Campion	РН		Caryophyllaceae	R	3
Silene coniflora Nees ex Otth [S. multinervia] *	Many-veined Campion	AH		Caryophyllaceae	R	1
Silene gallica L. *	Windmill Pink	AH		Caryophyllaceae	R	2
Silene laciniata ssp. californica (Durand) J.K. Morton	California Indian Pink	РН		Caryophyllaceae	S	12



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Silene laciniata Cav. ssp. laciniata	Mexican Pink	PH		Caryophyllaceae	О	20
Silene lemmonii S. Watson	Lemmon Campion or Catchfly	РН		Caryophyllaceae	R	3
Silene major (C. Hitchc. & Maguire) Simono	Mexican or Indian Pink	PH		Caryophyllaceae	R	1
Silene nuda (S. Watson) C.L. Hitchc. & Maguire	Sticky Catchfly	PH		Caryophyllaceae	R	1
Silene parishii S. Watson	Parish's Catchfly	PH		Caryophyllaceae	R	1
Silene verecunda S. Watson	Cuyamaca or San Francisco Campion	PH		Caryophyllaceae	R	8
Silybum marianum (L.) Gaertner *	Milk Thistle	AH		Asteraceae	R	8
Sisymbrium altissimum L. *	Tumble Mustard	AH	FACU	Brassicaceae	О	84
Sisymbrium irio L. *	London Rocket	AH		Brassicaceae	U	14
Sisymbrium officinale L. *	Hedge Mustard	AH		Brassicaceae	R	2
Sisymbrium orientale L. *	Eastern Mustard, Hare's Ear Cabbage	AH		Brassicaceae	О	37
Sisyrinchium bellum S. Watson	Blue-eyed Grass	PH	FACU	Iridaceae	U	11
Solanum americanum Miller	White Nightshade	A/PH	FACU	Solanaceae	U	10
Solanum dimidiatum Raf. *	Torrey's Nightshade	РН		Solanaceae	R	1
Solanum douglasii Dunal	Douglas Nightshade	PH	FAC	Solanaceae	С	39
Solanum elaeagnifolium Cav. *	Silverleaf Horse- nettle	РН		Solanaceae	R	2
Solanum lycopersicum L. [Lycopersicon esculentum Mill.] *	Tomato	AH/P H		Solanaceae	R	2



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Solanum parishii A.A. Heller	Parish Nightshade	S		Solanaceae	R	2
Solanum umbelliferum Eschsch.	Blue Witch	S		Solanaceae	С	46
Solanum wallacei (A. Gray) Parish	Wallace's Nightshade	S		Solanaceae	R, 1B.1	1
Solanum xanti A. Gray var. xanti	Chaparral Nightshade	S		Solanaceae	С	74
Solidago confinis Gray	Southern Goldenrod	PH	OBL	Asteraceae	U	9
Solidago guiradonis Gray	Guirado Goldenrod	РН	(FACW)	Asteraceae	R, 4.2	1
Solidago spectabilis (D.C. Eaton) A. Gray	Showy Goldenrod	РН		Asteraceae	R	1
Solidago velutina ssp. californica (Nutt.) Semple	California Goldenrod	РН		Asteraceae	U	41
Solidago velutina ssp. sparsiflora (A. Gray) Semple	Few-flowered Goldenrod	РН		Asteraceae	R	1
Soliva sessilis Ruiz Lopez & Ravon *	Common Soliva	AH	FACU	Asteraceae	R	1
Sonchus asper (L.) Hill ssp. asper *	Prickly Sow-thistle	AH	FAC	Asteraceae	S	40
Sonchus oleraceus L. *	Common Sow-thistle	AH	(FACU)	Asteraceae	R	28
Sorghum bicolor (L.) Moench var. bicolor *	Sorghum	AG	FACU	Poaceae	R	1
Sorghum halapense (L.) Pers. *	Johnson Grass	PG	FACU	Poaceae	R	3
Spartium junceum L. *	Spanish Broom	S		Fabaceae	S	29
Spergularia bocconi (Scheele) Graebn. *	Boccone's Sand Spurry	AH	FACW	Caryophyllaceae	R	3
Spergularia macrotheca var. leucantha (E. Greene) Robinson	White Large[- flowered] Sand Spurrey	AH	FAC	Caryophyllaceae	R	1



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Spergularia marina (L.) Besser [S. salina J. Presl. & C. Presl.]	Salt Marsh Sand Spurry	AH	OBL	Caryophyllaceae	U	6
Sphaeralcea ambigua A. Gray var. ambigua	Apricot Mallow	S		Malvaceae	R	1
Sphaeralcea emoryi Torr. ex A. Gray var. emoryi	Emory's Desert Mallow	PH		Malvaceae	R	2
Sphaeralcea parvifolia A. Nelson	Small-leaf Globemallow	PH		Malvaceae	R	1
Sphenosciadium capitellatum Gray	Ranger Buttons, Swamp White Heads	PH	FACW	Apiaceae	U	7
Spinacia oleracea L. *	Spinach	BH		Chenopodiaceae	R	1
Sporobolus airoides Torrey	Alkali Sacaton	PG	OBL	Poaceae	R	2
Sporobolus cryptandrus (Torr.) A. Gray	Sand Dropseed	PG	FACU	Poaceae	R	1
Stachys ajugoides Benth.	Hedge Nettle	PH	OBL	Lamiaceae	R	4
Stachys albens A. Gray	Woolly or Whitestem Hedge Nettle	PH	OBL	Lamiaceae	С	76
Stachys bullata Benth.	Pink Hedge Nettle, Common Woodmint	PH		Lamiaceae	S	16
Stachys rigida Benth. var. quercetorum (A. Heller) G.A. Mulligan & D.B. Munro	Rough Hedge Nettle	PH	FACW	Lamiaceae	R	2
Stachys rigida Bentham var. rigida	Rigid Hedge Nettle	PH	FACW	Lamiaceae	R	5
Stanleya pinnata (Pursh) Britton var. pinnata	Prince's Plume	S		Brassicaceae	S	15
Stebbinsoseris heterocarpa (Nuttall) Chambers	Chicory Microseris	AH		Asteraceae	S	20
Stellaria media (L.) Vill. *	Common Chickweed	AH	FACU	Caryophyllaceae	S	23
Stellaria neglecta Weihe *	Greater Chickweed	AH	FACU	Caryophyllaceae	R	2


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Stellaria nitens Nuttall	Shining Chickweed	AH		Caryophyllaceae	U	8
Stephanomeria cichoriacea A. Gray	Fort Tejon Milk- aster, Chicory-leaved Milk-aster	РН		Asteraceae	R	33
Stephanomeria diegensis Gottlieb	San Diego Milk-aster	AH/P H		Asteraceae	R	1
Stephanomeria exigua Nuttall ssp. exigua	Small Stephanomeria	AH		Asteraceae	R	6
Stephanomeria exigua ssp. carotifera (Hoover) Gottlieb	Carot Stephanomeria	AH		Asteraceae	U	6
Stephanomeria exigua ssp. coronaria (Greene) Gottlieb	Small Stephanomeria	AH		Asteraceae	U	20
Stephanomeria paniculata Nutt.	Paniculate Wire Lettuce	AH		Asteraceae	R	1
Stephanomeria parryi A. Gray	Parry's Wire Lettuce	PH		Asteraceae	R	4
Stephanomeria pauciflora (Nutt.) Nelson var. pauciflora	Wire-lettuce	PH		Asteraceae	S	36
Stephanomeria tenuifolia (Raf.) H.M. Hall	Narrow-leaved Wirelettuce	PH		Asteraceae	R	1
Stephanomeria virgata Benth.	Rod Wire Lettuce	AH		Asteraceae	С	51
Stephanomeria virgata ssp. pleurocarpa (Greene) Gottlieb	Two-fruited Wreath Plant	AH		Asteraceae	S	30
Stephanomeria virgata Benth. ssp. virgata	Twiggy Wreath Plant, Tall Stephanomeria	AH		Asteraceae	U	28
Stillingia linearifolia S. Watson	Narrowleaf Stillingia	PH	(FAC-)	Euphorbiaceae	U	11
Stipa brachychaeta Godr. *	Shortbristled Needlegrass	РН		Poaceae	R	0
Stipa cernua Stebbins & Löve	Foothill Needlegrass	PG		Poaceae	О	26
Stipa comata Trin. & Rupr. var. comata	Needle & Thread Grass	PG		Poaceae	R	1



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Stipa coronata Thurber	Giant Needlegrass	PG	-	Poaceae	С	50
Stipa hymenoides Roemer & Schultes	Indian Ricegrass	PG		Poaceae	R	12
Stipa latiglumis Swallen	Wide-glumed Needlegrass	PG		Poaceae	R	1
Stipa lemmonii (Vasey) Scribn. var. lemmonii	Lemmon's Needlegrass	PG		Poaceae	R	3
Stipa lepida A. Hitchc.	Foothill Needlegrass	PG		Poaceae	S	23
Stipa miliacea (L.) Hoover var. miliacea [Oloptum miliaceum] *	Smilo Grass	PG	(FACU)	Poaceae	S	71
Stipa pulchra A. Hitchc.	Purple Needlegrass	PG		Poaceae	U	22
Stipa speciosa Trin. & Rupr.	Desert Needlegrass	PG		Poaceae	С	83
Stipa tenuissima Trin. *	Finestem Needlegrass	PG		Poaceae	R	1
Stipa thurberiana Piper	Thurber Needlegrass	PG		Poaceae	R	6
Streptanthus campestris S. Watson	Southern Jewelflower	B/PH		Brassicaceae	R, 1B.3	1
Streptanthus tortuosus Kellogg	Jewelweed	A/PH		Brassicaceae	R	2
Stuckenia pectinata (L.) Börner	Fennel-leaf Pondweed	PH	OBL	Potamogetonaceae	R	4
Stuckenia striata (Ruiz & Pav.) Holub	Broadleaf Pondweed	PH	OBL	Potamogetonaceae	R	1
Stutzia [Atriplex] dioica (Nutt.) E.H. Zacharias	Thickleaf Orach	AH	FAC	Chenopodiaceae	R	1
Stylocline gnaphaloides Nuttall	Everlasting Nest Straw	AH		Asteraceae	0	25
Stylocline masonii Morefield	Mason's Neststraw	AH		Asteraceae	R, 1B.1	4



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Stylocline psilocarphoides M. Peck	Peck Neststraw	AH		Asteraceae	R	1
Suaeda calceoliformis (Hook.) Moq.	Horned Seablite	AH	FACW	Chenopodiaceae	R	7
Suaeda californica S. Watson var. californica	California Seablite	РН	FACW	Chenopodiaceae	R, FE, 1B.1	9
Suaeda esteroa Ferren & S.A. Whitmore	Estuary Seablite	РН	FACW	Chenopodiaceae	R, 1B.2	11
Suaeda nigra (Rafinesque) J.F. Macbride	Bush Seepweed	S	OBL	Chenopodiaceae	R	8
Suaeda taxifolia (Standley) Standley	Woolly Seablite	S	FACW	Chenopodiaceae	R, 4.2	17
Symphoricarpos albus var. laevigatus (Fern.) S.F. Blake	Common Snowberry	S	FACU	Caprifoliaceae	U	27
Symphoricarpos mollis Nuttall	Creeping or Trailing Snowberry	S	FACU	Caprifoliaceae	U	10
Symphoricarpos rotundifolius var. parishii (Rydb.) Dempster	Parish Snowberry	S		Caprifoliaceae	О	111
Symphyotrichum ascendens (Lindl.) G.L. Nesom	Long-leaved Aster	РН	FAC	Asteraceae	R	2
Symphyotrichum chilense (Nees) G.L. Nesom	Common California Aster	AH	FAC	Asteraceae	R	1
Symphyotrichum dumosum (L.) G.L. Nesom var. dumosum *	Button Rice Aster	PH	(FACW)	Asteraceae	R	1
Symphyotrichum greatae (Parish) G.L. Nesom	Greata's Aster	PH	(FACW)	Asteraceae	R, 1B.3	13
Symphyotrichum lanceolatum var. hesperium (A.Gray) G.L. Nesom	Siskiyou Aster	РН	OBL	Asteraceae	R	2
Symphyotrichum spathulatum (Lindl.) G.L. Nesom var. spathulatum	Western Mountain Aster	PH	FAC	Asteraceae	R	1
Symphyotrichum subspicatum (Nees) G.L. Nesom var. subspicatum	Douglas Aster	РН	FACW	Asteraceae	R	5
Symphyotrichum subulatum var. elongatum (A.G. Jones & Lowry) S.D. Sundb. *	Annual Saltmarsh Aster	AH	OBL	Asteraceae	R	2



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Symphyotrichum subulatum var. parviflorum (Nees) S.D. Sundb.	Annual Saltmarsh Aster	AH	OBL	Asteraceae	R	3
Syntrichopappus fremontii A. Gray	Fremont's Syntrichopappus, Yellowray Fremont's Gold	AH		Asteraceae	R	6
Syntrichopappus lemmonii (A. Gray) A. Gray	Lemmon's Xerasid	AH		Asteraceae	R, 4.3	5
Tamarix aphylla (L.) H. Karst. *	Athel	S/T	FAC	Tamaricaceae	R	1
Tamarix chinensis Lour. *	Fivestamen Tamarisk	S	FAC	Tamaricaceae	R	2
Tamarix parviflora DC. *	Smallflower Tamarisk	S/T	FAC	Tamaricaceae	R	1
Tamarix ramosissima Ledeb. *	Tamarisk	T/S	(FACW)	Tamaricaceae	R	34
Taraxacum officinale F.H. Wigg. *	Common Dandelion	AH	FACU	Asteraceae	R	2
Taraxia subacaulis (Pursh) Rydb.	Taraxia	PH		Onagraceae	R	1
Tauschia arguta (Torrey & Gray) J.F. Macbr.	Southern Tauschia	PH		Apiaceae	О	36
Tauschia hartwegii (A.Gray) J.F. Macbr.	Hartweg Tauschia	РН		Apiaceae	S	14
Tauschia parishii (Coulter & Rose) Macbr.	Parish Tauschia	PH		Apiaceae	R	14
Tetradymia axillaris var. longispina (M. E. Jones) Strother	Catclaw Horsebrush	S		Asteraceae	R	2
Tetradymia canescens DC.	Cottonthorn, Horsebrush	S		Asteraceae	R	3
Tetradymia comosa Gray	Cottonthorn, Horsebrush	S		Asteraceae	U	9
Tetradymia stenolepis Greene	Mojave Cottonthorn or Horsebrush	S		Asteraceae	R	2
<i>Tetrapteron graciliflorum</i> (Hook. & Arn.) W.L. Wagner & Hoch	Hill Sun-cup	AH		Onagraceae	S	27



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<i>Tetrapteron palmeri</i> (S. Watson) W.L. Wagner & Hoch	Palmer Primrose	AH		Onagraceae	R	6
Thalictrum fendleri Engelmann ex Gray var. fendleri	Fendler Meadow-rue	PH	FAC	Ranunculaceae	R	4
Thalictrum fendleri var. polycarpum Torrey	Tall Western Meadow-rue	PH	FAC	Ranunculaceae	R	2
Thamnosma montana Torr. & Frem.	Mountain Rue	S		Rutaceae	R	1
Thermopsis californica var. argentata (Greene) Chen & Turner	Silvery False-Lupine	AH		Fabaceae	S	21
Thermopsis macrophylla Hook. & Arn. var. macrophylla	False-Lupine	PH		Fabaceae	R, SR, 1B.3	1
Thermopsis macrophylla var. venosa (Eastwood) Isely	Slender Santa Ynez False-lupine	РН		Fabaceae	R	1
<i>Thysanocarpus curvipes</i> Hook. ssp. <i>amplectens</i> (Green) P.J. Alexander & Windham	Common Fringe Pod	AH		Brassicaceae	R	4
Thysanocarpus curvipes Hooker ssp. curvipes	Fringe or Hairy Lace Pod	AH		Brassicaceae	О	26
Thysanocarpus curvipes Hook. ssp. eradiatus (Jeps.) P.J. Alexander & Windham	Fringe Pod	AH		Brassicaceae	R	1
Thysanocarpus desertorum A. Heller	Desert Lace Pod	AH		Brassicaceae	R	5
Thysanocarpus lacinatus Torrey & Gray var. laciniatus	Lace Pod	AH		Brassicaceae	С	53
Torilis arvensis (Hudson) Link *	Hedge-parsley	AH		Apiaceae	R	9
Torilis nodosa (L.) Gaertner *	Rattlesnake Weed	AH		Apiaceae	R	2
Toxicodendron diversilobum (T. & G.) Greene	Western Poison Oak	S/V	FACU	Anacardiaceae	С	160
Toxicoscordion [Zigadenus] brevibracteatum (M.E. Jones) R.R. Gates	Desert Death Camas	РН		Melanthiaceae	S	7
Toxicoscordion [Zigadenus] fremontii (Torrey) Rydberg	Star Lily	PH		Melanthiaceae	S	12



Scientific Name	Common Name	Family	Abundance	Number of Records		
Toxicoscordion [Zigadenus] venenosum (S. Watson) Rydb. var. venenosum	Meadow Death Camas	PH	-	Melanthiaceae	R	3
Tragopogon dubius Scop. *	Yellow Salsify	A/BH	-	Asteraceae	R	8
Tribulus terrestris L. *	Puncture Vine, Caltrop	AH	-	Zygophyllaceae	R	5
Trichostema austromontanum Harlan Lewis ssp. austromontanum	San Jacinto Bluecurls	AH	OBL	Lamiaceae	R	1
Trichostema lanatum Bentham	Woolly Bluecurls, Romero	S		Lamiaceae	С	78
Trichostema lanceolatum Benth.	Vinegar Weed	AH	FACU	Lamiaceae	U	12
Trichostema micranthum Gray	Bluecurls	AH	FAC	Lamiaceae	R, 4.3	4
Trichostema parishii Vasey	Parish Bluecurls	S		Lamiaceae	R	3
Trifolium albopurpureum T. & G. var. albopurpureum	Rancheria Clover	AH	FACU	Fabaceae	S	21
Trifolium ciliolatum Benth.	Ciliate or Tree Clover	AH		Fabaceae	U	10
Trifolium cyathiferum Lindley	Mountain Clover	AH	FAC	Fabaceae	R	2
<i>Trifolium depauperatum</i> var. <i>amplectens</i> (T. & G.) L.F. McDermott	Balloon Sack Clover	AH	FAC	Fabaceae	R	1
<i>Trifolium depauperatum</i> Desv. var. <i>truncatum</i> (Greene) J.S. Martin ex Isely	Dwarf Sack Clover	AH	FAC	Fabaceae	R	1
Trifolium fucatum Lindl.	Sour Clover	AH	FACU	Fabaceae	R	5
Trifolium gracilentum T. & G. var. gracilentum	Pin-point Clover	AH		Fabaceae	О	32
Trifolium hirtum All. *	Rose Clover	AH		Fabaceae	R	5
Trifolium microcephalum Pursh	Tiny-head Clover	AH	FACU	Fabaceae	R	10



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Trifolium monanthum A. Gray ssp. grantianum (A. Heller) J.M. Gillett	Grant's Carpet Clover	PH	FAC	Fabaceae	R	4
Trifolium monanthum A. Gray ssp. monanthum	Carpet Clover	PH	FAC	Fabaceae	R	3
Trifolium obtusiflorum Hooker & Arnott	Creek Clover	PH	FAC	Fabaceae	U	9
<i>Trifolium variegatum</i> Nutt. var. <i>geminiflorum</i> (Greene) Vincent	Small-flowered Variegated Clover	AH	FAC	Fabaceae	U	5
Trifolium variegatum var. major Lojac.	Large Whitetip Clover	AH	FAC	Fabaceae	R	1
Trifolium variegatum Nutt. var. variegatum	Whitetip Clover	AH	FAC	Fabaceae	S	15
Trifolium willdenovii Sprengel	Tomcat Clover	AH	FACW	Fabaceae	U	12
Trifolium wormskioldii Lehm.	Cows Clover	PH	FACW	Fabaceae	U	6
Triodanis biflora (Ruiz Lopez & Pavon) Greene	Venus Looking-glass	AH		Campanulaceae	R	1
Tripleurospermum inodorum (L.) Sch. Bip. *	Sentless Matricaria, False Chamomile	AH	(FACU)	Asteraceae	R	1
Triteleia ixioides (Aif. F.) Greene ssp. ixioides	Golden Brodiaea	РН	FAC	Themidaceae	Х	0
Triticum aestivum L. *	Cultivated Wheat	AG		Poaceae	R	4
Tropidocarpum gracile Hook.	Slender Tropidocarpum	AH		Brassicaceae	О	28
Turricula parryi (A. Gray) J.F. Macbr.	Poodle-dog Bush	S		Namaceae	С	60
Turritis glabra L.	Tower Mustard	BH		Brassicaceae	R	10
Typha angustifolia L.	Slender Cattail	РН	OBL	Typhaceae	R	1
Typha domingensis Pers.	Southern Cattail	PH	OBL	Typhaceae	S	43



Scientific Name	Common Name	Family	Abundance	Number of Records		
Typha latifolia L.	Broad-leaved Cattail, Soft Flag	PH	OBL	Typhaceae	R	2
Ulmus minor Mill. *	English Elm	Т		Ulmaceae	R	2
Ulmus parvifolia Jacquin *	Chinese Elm, Lacebark Elm	Т	UPL	Ulmaceae	R	2
Ulmus pumila L. *	Siberian Elm	Т	UPL	Ulmaceae	R	1
Umbellularia californica (Hook. & Arn.) Nutt. var. californica	California Bay	Т	FAC	Lauraceae	О	35
Uropappus lindleyi (DC.) Nutt.	Silver Puffs	AH	-	Asteraceae	С	111
Urospermum picroides (L.) Scop. ex Schmidt *	Prickly Goldenfleece	A/PH	-	Asteraceae	R	3
Urtica dioica L. ssp. holosericea (Nutt.) Thorne	Hoary or Giant Stinging Nettle	PH	FAC	Urticaceae	S	35
Urtica urens L. *	Dwarf or Dog Nettle	AH		Urticaceae	R	8
Venegasia carpesioides DC.	Canyon Sunflower	PH/S	-	Asteraceae	R	2
Veratrum californicum Durand var. californicum	California False Hellebore	PG	FACW	Melanthiaceae	R	3
Verbascum thapsus L. *	Woolly Mullein	BH	FACU	Scrophulariaceae	R	3
Verbascum virgatum Stokes *	Wand Mullein	BH	(FACW)	Scrophulariaceae	R	2
Verbena bracteata Lagasca & J.D. Rodriguez	Prostrate Verbena	A/BH	FAC	Verbenaceae	R	1
Verbena lasiostachys Link. var. lasiostachys	Western Verbena	AH	FAC	Verbenaceae	U	26
Verbena lasiostachys var. scabrida Mold.	Rough Western Verbena	AH	OBL	Verbenaceae	U	9
Verbena tenuisecta Briq. *	Paraguay Verbena	РН	(FAC)	Verbenaceae	R	1



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Verbesina encelioides (Cav.) Benth. & Hook. F. ex A. Gray ssp. exauriculata (B.L. Rob. & Greenm.) J.R. Coleman *	Crownbeard	AH	FACU	Asteraceae	R	2
Veronica americana Schwein. ex Benth.	American Speedwell	PH	OBL	Plantaginaceae	О	15
Veronica anagallis-aquatica L. *	Water or Common Speedwell	PH	OBL	Plantaginaceae	S	26
Veronica peregrina ssp. xalapensis (Kunth) Pennell	Purslane Speedwell	AH	OBL	Plantaginaceae	S	14
Veronica persica Poiret *	Persian Speedwell	AH		Plantaginaceae	R	4
<i>Veronica serpyllifolia</i> ssp. <i>humifusa</i> (Dickson) Syme	Tyme-leaved Speedwell	AH	FAC	Plantaginaceae	R	1
Vicia americana Willd. ssp. americana	American Vetch	РН	FAC	Fabaceae	О	26
Vicia hassei S. Watson	Hasse Vetch	AH		Fabaceae	R	4
Vicia ludoviciana Nutt. var. ludoviciana	Vetch	AH	UPL	Fabaceae	R	1
Vicia villosa ssp. varia (Host) Corbière *	Hairy or Winter Vetch	AH		Fabaceae	R	1
Vicia villosa Roth ssp. villosa *	Hairy or Winter Vetch	AH		Fabaceae	R	1
Vinca major L. *	Greater Periwinkle	PV	(FAC)	Apocynaceae	R	3
Vinca minor L. *	Lesser Periwinkle	PV		Apocynaceae	R	2
Viola macloskeyi F.E. Lloyd ssp. macloskeyi	Small White Violet	PH	OBL	Violaceae	R	1
Viola pedunculata T. & G. ssp. pedunculata	Johnny-Jump-Up	РН		Violaceae	R	7
Viola pinetorum ssp. grisea (Jeps.) R.J. Little	Gray-leaved Violet	РН		Violaceae	R, 1B.2	4
Viola pinetorum Greene ssp. pinetorum	Pine Violet	PH		Violaceae	U	6



Scientific Name	Common Name	Habit	Family	Abundance	Number of Records	
Viola purpurea Kellogg ssp. mesophyta M.S. Baker & J.C. Clausen	Goosefoot Violet	PH		Violaceae	R	1
Viola purpurea ssp. mohavensis (M. Baker & J. Clausen) J. Clausen	Mojave Yellow Violet	PH		Violaceae	R	4
Viola purpurea Kellogg ssp. purpurea	Purple or Mountain Violet	PH		Violaceae	S	25
Viola purpurea ssp. quercetorum (M. Baker & J. Clausen) R.J. Little	Oak Violet	РН		Violaceae	S	17
Vitis californica Benth.	California Wild Grape	PV	FACU	Vitaceae	R	1
Vitis girdiana Munson	Desert Wild Grape	PV	FAC	Vitaceae	R	5
Vitis vinifera L. *	Wine Grape	PV		Vitaceae	R	1
Vulpia [Festuca] bromoides (L.) S.F. Gray *	Slender Fescue	AG	FAC	Poaceae	R	3
<i>Vulpia [Festuca] microstachys</i> var. <i>ciliata</i> (Beal) Lonard & Gould	Ciliate Fescue	AG	-	Poaceae	R	4
Vulpia [Festuca] microstachys var. confusa (Piper) Lonard & Gould	Fescue	AG		Poaceae	R	5
Vulpia [Festuca] microstachys (Nutt.) Benth. var. microstachys	Small Fescue	AG		Poaceae	О	34
Vulpia [Festuca] microstachys var. pauciflora (Beal) Lonard & Gould	Few-flowered Side- oats	AG		Poaceae	S	18
Vulpia [Festuca] myuros (L.) C.C. Gmel. var. hirsuta Hack. *	Rattail Sixweeks Grass	AG	FACU	Poaceae	R	2
Vulpia [Festuca] myuros f. megalura (Nutt.) Stace & R. Cotton *	Foxtail Fescue	AG	FACU	Poaceae	R	1
Vulpia [Festuca] myuros (L.) C. Gnelin f. myuros *	Rattail Fescue	AG	FACU	Poaceae	S	41
Vulpia [Festuca] octoflora L.	Sixweeks grass	Poaceae	R	5		
Vulpia [Festuca] octoflora var. hirtella (Piper) Henrard	Sixweeks Fescue	AG	UPL	Poaceae	R	1



Scientific Name	Common Name	Habit	Wetland Indicator Status	Family	Abundance	Number of Records
Vulpia [Festuca] octoflora (Walter) Rydb. var. octoflora	Sixweeks Fescue	AG	UPL	Poaceae	R	7
Washingtonia robusta H. Wendl. *	Mexican Fan Palm	Т	FACW	Arecaceae	R	2
Woodwardia fimbriata Smith in Rees	Giant Chain Fern	PF	FACW	Blechnaceae	R	5
Wyethia ovata Torr. & A. Gray	Southern Mule's Ear	PH		Asteraceae	R	1
Xanthium spinosum L. *	Spiny or Spring Clotbur	AH	FACU	Asteraceae	R	1
Xanthium strumarium L.	Cocklebur	AH	FAC	Asteraceae	U	23
Xylorhiza tortifolia (Torr. & A. Gray) Greene var. tortifolia	Mojave Woodyaster	PH		Asteraceae	R	1
Yabea microcarpa (Hooker & Arnott) Koso-Pol.	Yabea	AH	FACU	Apiaceae	U	11
Yosemitea [Boechera] repanda (S. Watson) P.J. Alexander & Windham	Yosemite Rock Cress	PH		Brassicaceae	S	20
Yucca brevifolia var. herbertii (J.M. Webber) Munz	Herbert Joshua Tree	S		Agavaceae	S	12
Zannichellia palustris L.	Horned-Pondweed	PG	OBL	Potamogetonaceae	U	17
Zeltnera exaltata (Griseb.) G. Mans.	Great Basin Centaury	AH	FACW	Gentianaceae	R	5
Zeltnera venusta (A. Gray) G. Mans	Beautiful Centaury, Canchalagua	AH		Gentianaceae	R	3



APPENDIX B. PLANT OBSERVATIONS BY BIOREGION

PLANT OCCURRENCES BY BIOREGION

The table below includes the number of sites within each watershed bioregion each taxon was either observed or vouchered.

	Bioregions																																																			
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	HV	LM	rv	Pim	5 5	N.	20 Ju	MINIC	MP	an	HO	OP	PM	PV	PMR	PP	PorR	RM	RRM	KKK	KV	SFC	SGahM	SGM	SCR	SPC	SPR	SSM	SawM	SP	SPV	SOLC	TohM	TTM	Pum	Pcu	Su	НЛ	MSM	WP	WPR
Abies lowiana	45			3						2				1						3:	5					4																										
Abronia maritima	11																						10													1																
Abronia maritima X A. umbellata	1																						1													?																
Abronia pogonantha	3	1																																2																		
Abronia turbinata	3													1						1																											1					
Abronia umbellata ssp. umbellata	9																						8													1																
Abutilon theophrasti*	1																																						1													
Acacia baileyana*	1																																						1										Π			
Acacia cyclops*	3																						3																													
Acacia longifolia*	2																						1													1																
Acacia redolens*	1																																																1			
Acanthomintha lanceolata	1																																		1																	
Acanthomintha obovata var. cordata	12									1				2						4											1				3													1				
Acanthoscyphus parishii var. abramsii	9													2						2						1																	Τ		4				Π			
Acanthoscyphus parishii var. parishii	1																									1																										
Acer macrophyllum var. macrophyllum	36								2							<u>, , , , , , , , , , , , , , , , , , , </u>	3	1			7	1				1	1	1				?		1			4			2	4				1	1				1		5
Acer negundo var. californicum	2								1																																			1								
Achillea millefolium var. californica	3																				1																1						1									
Achillea millefolium var. millefolium	49							1		2										30	С		1			2												1	1				6	;			4		1			



																									Bio	ore	gia	ons																							
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	HV	LM	LV	Pel	su SI	Sm	MintC	М	MP	NR	ΟH	OP	PM	PV	PINIK	PorR	RM	RRM	RRR	RV	SadM	SFC	SGabM	SGM	suk	oru enn	SSM	SawM	SP	SPV	SolC	SM	TehM	TTM	Pum	Pcu	Su	THA HA	WSM	WPR
Achillea millefolium var. occidentale	8									2										4					1	1																				ł	1				
Achillea millefolium var. pacifica	2																			1					1	1																									
Achyrachaena mollis	17	,			1		1																		3 3	3		1										1 3		2				2		ł					
Acmispon americanus var. americanus	43			4			1	2		1			1							2	2		3		2	2	1	l			1			1	4]	1						1				9	1		6	
Acmispon argophyllus var. argophyllus	16	5		1	1				2							2	2 1			1					1 1	1										2	2		1							ł				1	2 1
Acmispon brachycarpus	41						1		3			1	1				1	1		4	1	2			1 2	2	1	l			2			1				1		11		2		1				4			
Acmispon denticulatus	7								1					1						2															1													2			
Acmispon glaber var. brevialatus	1						1																																							ł					
Acmispon glaber var. glaber	200)	1	1	6	1	2	6	4	1	1	1	3	1	3	1	0 4	. 1		1	7	1	3	2	7 2	2	2	2 13	3 3	4		1	3	3	1	5 1	0	1 4	15	; 8		5	4	2	1	3		1	1	18 1	3 2
Acmispon grandiflorus var. grandiflorus	36	5			1			2	1				8							1					2	2	6	5		1				5					2	3								2		1	1
Acmispon heermannii var. heermannii	13												2												1	1	1	1	1				1	2					1							ł				3	
Acmispon heermannii var. orbicularis	2																						2																												
Acmispon junceus var. junceus	2		1																	1																															
Acmispon maritimus var. brevivexillus	6																																						4	2											
Acmispon maritimus var. maritimus	54	-					2								1	1	1	2			1		4					2		2		1	6			1 2	2	4	2	8		4	3					1	1	1 2	2 2
Acmispon micranthus	10						1	3										1								1	L						2							1					1						
Acmispon nevadensis var. nevadensis	12	2		5											1					4					1	1													1												
Acmispon nevadensis var. davidsonii	9								2											4					3	3																				ł					
Acmispon parviflorus	3			1																	1		1																												
Acmispon procumbens var. procumbens	36	5								1		1	2	1						5					1 1	1	5	5												2				1			15	1			
Acmispon prostratus	1															1	ļ																																		
Acmispon strigosus var. strigosus	75	i			2	4	1	2	1		1		4			1	2	3			2		1		1 1	1	1	1 2					3	4		1	1	2	3	4		8		2	2	2	1	2		1	1
Acmispon wrangelianus	42	2							1	4			2				2			1			2		6 1	1				3	1	1				1	1		2	2		1	1	2				3		-	3 3
Acourtia microcephala	46			1				3					2		2	2	2 3				8			1	1	1		2					1	2		1	1	2 2	1		1	1						1		3 2	2 3
Acroptilon [Centaurea] repens*	12																				1		7			1	l				1					1		1													
Adenostoma fasciculatum var. fasciculatum	231	ı	1		14	1	1	13	3	1		1	7	,	7	ſ	1	2 5		1	18	2	T	2	3	3	2	2 13	3 1	10	2		4	6		6	1	2	30) 14	1	7	2	7	2	ιT	Ţ	7	[]	13 1	4 2



																										Bi	ore	egi	ion	IS																								
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	HV	LM	LV	Plm	Pcl	SI	Sm	MintC	М	MP	NR	HO	OP	PM	۲V	PMR	PP	PorR	RM	RRM	KKK DV	KV G-JM	SEC	SGabM	SGM	SCR	SPC	SPR	SSM	SawM	SP	SPV	SolC	SM	TehM	MTT	Pum	Pcu	Su	UH VH	MSM	WP	WPR
Adiantum capillus-veneris	17		1			T	1		1			1			2		2					2				T					2				2			1			1	Γ						2		1				
Adiantum jordanii	22		1					1							3		3					7													2			2			1				1									1
Aeonium arboreum var. arboreum*	1																																																		1			
Aesculus californica	12												2											2					4												1			1		2				Τ				
Agave americana*	2								1																										1																			
Ageratina adenophora*	3																1													1							1																	
Agonis flexuosa*	3																			3																																		
Agoseris elata	1																				1																					Γ							T	T	T	T		ľ
Agoseris grandiflora var. grandiflora	19				1				1				1								3						2		1			1	1							1					4		1		1				1	1
Agoseris grandiflora var. leptophylla	1									1																																							T	T	T	T		ľ
Agoseris heterophylla var. cryptopleura	7									1				1							1					1	1																		1	1								
Agoseris heterophylla var. heterophylla	14									1				3							1	1		1			1		1			1	1												2				1					1
Agoseris retrorsa	56		1	3	2	1		3	3	4		1	1	2	1			1			3		2			1	5		4			1	1				1	1			1	1		1	1	2	1		5	1		T	1	1
Agropyron cristatum ssp. pectinatum*	1											?	1																													Γ							T	T	T	T		Γ
Agrostis capillaris*	1																							1																														
Agrostis exarata	17									1		1	1								5						2							1		1		1		1	1								1	Τ				1
Agrostis gigantea*	3																					2				1																												
Agrostis hallii	1																				1																																	
Agrostis pallens	3			1																	1																																	1
Agrostis stolonifera [var. palustris]*	5													1								1		1																1				1										
Ailanthus altissima*	8				1		1										1					1							1					1							1							1						
Aira caryophyllea*	2																	1														1	1																					
Ajuga reptans*	1																					T		1																						Π			Γ	T	T	T		Ī
Alcea rosea*	1								1													T																											Γ	T	T	T		ſ
Allium amplectens	1	1		1			Ī		Ī					1																							1	1	1									Γ	1	T	T	1		Γ

Allium bisceptrum

1



																									Bio	ore	gio	ons	5																						
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	6H	HV T M	LV L	Dlm	Pcl	SI	Sm	MintC	М	MP	NR	HO	OP	PM	PV	PMK	Pr DorD	DM	RM	RRR	RV	SadM	SFC	SGabM	SGM	SPC	SPR	SSM	SawM	SP	SPV	SolC	SM	TehM	MLT.	Pum	rcu e	Su VH	MSM	WP	WPR
Allium burlewii	11									1			1				1			5					:	3													1						Т				T		Π
Allium campanulatum	10									1			1							8																															
Allium cratericola	5									2										1															2																
Allium denticulatum	1																			1																															
Allium diabloese	11																			2		2				6					1																				
Allium fimbriatum var. fimbriatum	33									3		1	5							7						3	3	2	2		5			1	1					1							1	1			
Allium fimbriatum var. mohavense	4																			1							2	2														1									
Allium haemaetochiton	9													3	;																			1						5											
Allium howellii var. clokeyi	21						1						6	;			1			3						1		1	-						6								1			1	1				
Allium howellii var. howellii	2									1			1																													Τ									
Allium lacunosum var. davisiae	2																																		1							1									
Allium lacunosum var. lacunosum	3									1																								1															1		
Allium monticola	3			1																																						Τ			2						
Allium neapolitanum	2																		2																							Τ									
Allium parryi	3																			1															2							Τ									
Allium peninsulare var. peninsulare	3							2																									1																		
Allium praecox	1																				1																					Τ									
Allium sanbornii var. sanbornii	1												1																																				Τ		
Allium tribracteatum	1																																		1														Τ		
Allium vineale ssp. vineale*	5			1																3						1																							Τ		
Allophyllum divaricatum	16							3												1	1					1							2	3	1							1					1	1	2		
Allophyllum gilioides ssp. gilioides	6			1					1			1													1	2																			ć	?			Τ		
Allophyllum gilioides ssp. violaceum	20					1			1	1		2	2 1							6	1	1				3								1					1			Τ					1	1			
Allophyllum glutinosum	19								2			1					1					1			1	3			1		2			1		1		2									2	2			1
Allophyllum integrifolium	3																																		2								T	┓	T	1	1				
Alnus incana ssp. tenuifolia	3																									2																				1	1				



																								I	Bio	reg	gio	ns																							
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLK 	FM	GH	пv тм	LV I	Plm	Pcl	SI	Sm	MintC	М	MP	NR	шО	0F 51	PW	PMR	PP	PorR	RM	RRM	RRR	RV	SadM	SFC	SCM	SCR	SPC	SPR	SSM	SawM	SP	SPV	SolC	SM	TehM	TIM	Pum	Pcu	Su	VH WSM	MP	WPR
Alnus rhombifolia	87		1	1					3				1	3		8	3				4 3	3		1	2		1		9	1	?		3	3	4	16			2			1			1 1	10	6 :	2	1	I	
Aloe sp.*	1																				1																														
Alpinia zerumbet*	1																		1																																
Alternanthera caracasana*	1																																																1		
Alyssum alyssoides*	1																																															1			
Amaranthus albus*	18						1					?					1		2			(6				2				1		1	l	1			1													2
Amaranthus blitoides	16						2		1				1						4			4	2		1										1			3											1		
Amaranthus californicus	1																														1																				
Amaranthus deflexus*	10																		4			-	5												1																
Amaranthus hybridus*	4																					1	2												1			1													
Amaranthus palmeri ssp. palmeri	1					1																																													
Amaranthus powellii ssp. bouchonii	2																						1															1													
Amaranthus powellii ssp. powellii	9																		7																2																
Amaranthus retroflexus*	4															1			1			1	2																												
Amblyopappus pusillus	5																					-	5																												
Ambrosia acanthicarpa	75				9			1			1	1 2	2			2	1	1		2		4	4	1 3	3	1	1	1		5			1	l	5			4	10	1	1	4	1					1	e	5 4	. 1
Ambrosia artemisiifolia*	1																						1																												
Ambrosia chamissonis	4																					4	4																												
Ambrosia confertiflora	1																																					1													
Ambrosia psilostachya var. californica	37		1			1	2					1				2	2				1	(6	1				8	2				1 1	l	1	1		1	1		1							1		1	1
Ambrosia salsola var. salsola	4											?															1													1		2									
Amelanchier alnifolia var. pumila	1																																												1						
Amelanchier pallida	1																																												1						
Amelanchier utahensis	12									1			1							1	1	l			1															4					3						
Ammannia coccinea	1								Τ													Ι											1																		
Ammi visnaga*	1				Τ	Ţ		T	Γ		T								Τ	T												T											1			T		Γ			



																									B	ior	egi	ion	s																							
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	HV	LM	LV	Plm	Pcl	SI	Sm	MINUC	MP	dN	UH OH	OP	PM	ΡV	PMR	PP	PorR	RM PDM	KKM	KKK BY	RV SadM	SFC	SGabM	SGM	SCR	SPC	SPR	SSM	SawM	SP	SPV	DUC	DIVL TLAA	TTM	Pum	Pcu	Su	НЛ	WSM	WP	WPR
Ammophila arenaria*	5																						5																													
Amorpha californica var. californica	65			5					2					1	2	1		4			3	2			1	12			1			2		2			2		2	1			1	1	2	2 2	9	3		3		2
Amsinckia douglasiana	14						1											3	2					1		2															2	1	2					1				
Amsinckia intermedia	38		2			1							3	1	1		1		3		3	;				2		1	1				3	1			2	1	2	1	2	2	2 3	3						1		1
Amsinckia menziesii var. menziesii	48				2		3	1	1						8		1	1					2	1	6			3	2				4	1		1					3	1	2 2	2							2	2
Amsinckia retrorsa	11				1		2																					1					1	1							1		2	2	2							
Amsinckia tessellata var. gloriosa	13											2	3	1											1			1																۷	4			1				
Amsinckia tessellata var. tessellata	65	3			3	1	2	1			1	3	3	1					2						12	2		5	1			1	1	2					1	2	4	,	7	e	5			1				
Amsinckia vernicosa var. vernicosa	2																																											2	2							
Amsonia tomentosa	1																																	1																		
Anchusa azurea*	1																																			1																
Ancistrocarphus filagineus	35			1	2		1		1			2		1				1							3	1		2		-	2	1		3							5	(5					2				1
Andropogon glomeratus var. scabriglumis	3			1															1	l														1																		
Androsace elongata ssp. acuta	12											1																2						1							6	1	2									
Anemopsis californica var. californica	25												2		7	2							7		1											3			1			1								1		
Angelica capitellata	7																			7	'																															
Anisocoma acaulis	19										1		3	2						2	:				4			3			1												1	2	2							
Antennaria dimorpha	2																			2	2																															
Anthemis cotula*	6						1																			1												1					3	3								
Anthoxanthum occidentale	1																						1																													
Anthriscus caucalis*	4												2																					1									1	1								
Antirrhinum coulterianum ssp. coulterianum	47		1				2	2					2		4	2			2				1					2	1			1	4	4					3	7	1	4	1							3		1
Antirrhinum kelloggii Greene	13							2	1												3	;											2	1		1				1										1		1
Antirrhinum nuttallianum ssp. subsessile	1																						1																													
Antirrhinum thompsonii [A. multiflorum]	51		1					3									3	1			8	3			1	1		4	6		1	1		4		2	7						1	i 🗌	1			2		1	2	1
Aphanes occidentalis	2																				1																						1	1								

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																										B	lioi	reg	gio	ns																								
Species	Total	AV	ABC	AM	BM	BC	CV	DSP	DLR	EM	E INI CITI	GH	IM	LIN	LV Di	Del	5	0	Sm Mi-1C	MIIIC	MP	NR	HO	OP	PM	PV	PMR	PP	PorR	RM	RRM	RRR	RV	SadM	SFC	SGabM	SGM	SUK	SPC	SPR	Sound	Dawin	SP SDV	SolC	SM	TehM	TTM	Pum	Pcu	Su	ΗΛ	WSM	WP	WPR
Aphyllon californicum ssp. californicum	2				l		l	l			Ī	ľ				ľ								1	-																			1							I			
Aphyllon californicum ssp. feudgei	9									4	2			2	2						2						3																											
Aphyllon californicum ssp. jepsonii	2			1									1																																									
Aphyllon franciscanum [A. fasciculatum]	47			2	2	1		1	3		3		1	l			1	1	1		2	1				1	3		1	3		2			2	5	2				1	1	1	1					2	1		1	3	
Aphyllon parishii ssp. parishii	9									1	l			1	1						1						2		1												1	1					1		1					
Aphyllon sp. nova	2			1																																1										Τ								
Aphyllon tuberosum [Orobanche bulbosa]	22				1				3				1	2			1	1	2			2					2			3											2	2					1							3
Aphyllon uniflorum	1																																																	1				
Aphyllon validum ssp. validum	2																																														2							
Apiastrum angustifolium	26						3													1		3								2		2		1				1	1		1	ľ	6	1	. 1						1		2	
Apium graveolens*	14												4	2										5		1												1			2	1				1		1						
Apocynum androsaemifolium	4								1																		2						1																					
Apocynum cannabinum	32			2									4	1	1		2	2 :	3		2	2	1				5						3											1				1	4	1				
Apocynum Xmedium	4								1																		1										1													1				
Aquilegia eximia	4													1	1				1			1					1																											
Aquilegia formosa var. truncata	21									1	l		1	l							8	2											3			1					1	1						2	2					
Aralia californica	5																					3	1				1																											
Araujia sericofera*	3																							1														2																
Arbutus menziesii	3																					2																								Τ								1
Arceuthobium campylopodum	18			2						1	l		4	2 1	1						4						4		3															1										
Arctostaphylos glandulosa ssp. cushingiana	8								2	2													1				4	1																										
Arctostaphylos glandulosa ssp. gabrielensis	6																																			6																		
Arctostaphylos glandulosa ssp. glandulosa	18				1				3	1	L								2			2	1				2	1		1			1														2							1
Arctostaphylos glandulosa ssp. mollis	64							3	3 1				(5			1	1	2			10	0 1				3	2		1			2		2	3			2		2 8	3					7			1	i T	2	1	4
Arctostaphylos glandulosa X A. glauca	2																										1																		T	T				1	i T	T		
Arctostaphylos glauca	102				7			3	3	<u></u>	3 (6	2 5	5	(5 2	2 1	14	4		2	3	2		1	2	6	1	3	2	1	3	2		4	4			4			7		2	1		2	2		2		2	5	1



																							ł	Bio	reg	gio	ns																							
Species	Total	AV	ABC	AM	BM	CV CV	DSR	DLR	FM	НЭ	AH	LM	L V Dl	Pcl	SI	Sm	MintC	М	MP	NR	HO	OP	M	PMR	ΡP	PorR	RM	RRM	RRR	RV	SFC	SGabM	SGM	SCR	SPC	SPR	SSM	SawM	SP	VdS	SolC	SM	TTM	Dum	Pcu	Su	НЛ	MSM	WP	WPR
Arctostaphylos mewukka	2																																								2									
Arctostaphylos parryana ssp. parryana	59			2					6	1			3						6				1	9						1		1	3												25	5 1				
Arctostaphylos patula	3																		3																															
Arctostaphylos pungens	9												1						1					5																	1		1							
Arctotis venusta*	1																					1																												
Argemone corymbosa ssp. corymbosa	3																							1							1										1									
Argemone munita ssp. munita	38	1		1	2		1		1			1 2	2				1		2				3	3		2	1			1	3						1	11			1				2	. 2				
Argemone munita ssp. rotundata	4								1		1		1													1																								
Argentina egedii ssp. egedii	2																																	2																
Aristida adscensionis	1																			1																														
Aristida purpurea var. parishii	1																																	1																
Aristida purpurea var. purpurea	1																																	1																
Aristida ternipes var. gentilis	1																																	1												Τ				
Arrhenatherum elatius*	2																					2																												
Artemisia biennis var. biennis *	8																					7												1																
Artemisia californica	203	3	2		1	4	. 7					2	4	5 3	6	2	1			6		1	3	1			10	4	1	1 1	5	2		17	6	1	10		5	4	4	8	1	4			6	15	13	2
Artemisia douglasiana	142			2	3	3	3	2	2			1 2	2 2	2	3	6	3	1	1	7	2	3	1	2		1	4	11	1	1	3	1		3	5		1	30				6	1	6	9	3	2	7		1
Artemisia dracunculus	136		3	7 9	9 1	l	2	2	3	3	1	4	1 1	1		5	3		23	2	2	1	1 1	5		3		1				1	1				4	9		1				1	26	53		5		
Artemisia ludoviciana ssp. incompta	3																		2					1																						Τ				
Artemisia ludoviciana ssp. ludoviciana	3																		1					1									1																	
Artemisia tridentata ssp. parishii	17	1					1		1				4	2			1														1	3		2						2	3									
Artemisia tridentata ssp. tridentata	172	2	1	10	1 1	l	2	2	11	10	3	1 3	3	1	1	10	1		4		3		2	2 9		1			1	3	1	1	15	4					2		2			2	55	55	3			
Artemisia tridentata ssp. vaseyana	19			1					12				1						1					1									2													1				
Arthrocnemum [Salicornia] subterminale	2																					2																												
Arundo donax*	13				2	2					?			1	1					1			1								1			4			1					1								
Asclepias californica ssp. californica	37	1		1	2				3				1 1	1		2			5	1	1		1	2		2							1		1			1					2	1	5	2				



																										B	io	reg	gio	ns																									
Species	Total	AV	ADC	ADU	AM	BM	BC	CV	DSR	DLR	FM	GH	HV	LIM I	L V DI	Del	n IS	mS.	MintC	M	MP	NR	HO	OP	PM	ΡV	PMR	ΡP	PorR	RM	RRM	RRR	RV	SadM	SFC	SGabM	SGM	SCK	SPC	SPR	SSM S	SawM	SP	SPV	SolC	SM	TehM	TTM	Pum	Pcu	Su	ΗΛ	MSM	WP	WPR
Asclepias eriocarpa	29	,			3					2	2		1	ı :	1 1			1			1		1				4	1	1				1			1					1			Т	Τ	1		Т		5	1	П			
Asclepias erosa	11					1						1	1								1					2			4																					1		Π			1
Asclepias fascicularis	42	2			1	2		1	1		2		2	2	1			2				1				5			1	1	2					1	1	1		1	1	5		1		1			2	2	2		1	1	1
Asclepias vestita	1														1																																								1
Asparagus asparagoides*	3																							1														1														1			1
Asparagus officinalis ssp. officinalis*	1																							1																															1
Asphodelus fīstulosus*	2																																					1														1			1
Aspidotis californica	10)															3					5																1			1														1
Astragalus brauntonii	1																																								1														1
Astragalus didymocarpus var. didymocarpus	26	5				1	1	3					2	2					1						1	2	1		1		1	1	1								2	,	7		2		1								
Astragalus didymocarpus var. dispermus	7																				1																					-	4		2							Π			1
Astragalus didymocarpus var. obispoensis	3																																1												1				1						
Astragalus douglasii var. douglasii	50)				2		1			1		3 :	5			2	1								15	3		3	1					2	1	1										4			3	2	Π			
Astragalus douglasii var. parishii	4														1														2																					1					1
Astragalus filipes	11					1					2			4	2						5					1																													1
Astragalus gambelianus	14	ŀ					1	2													1			1					1			2				2					1		3												
Astragalus lentiginosus var. fremontii	9										2		(* *	3	1						1		1				1																												1
Astragalus lentiginosus var. idriensis	18	3									1			4	1						4						4						2																		3				1
Astragalus lentiginosus var. nigricalycis	3																				1																1										1								
Astragalus lentiginosus var. sierrae	4										1				1												1										1																		
Astragalus lentiginosus var. variabilis	1																																														1								
Astragalus leucolobus	3										2										1																																		
Astragalus macrodon	2																				1								1																										1
Astragalus oxyphysus	2							1																		1																													
Astragalus pachypus var. pachypus	12	2	Ι								1		1	1	1						2					1	1										4																		
Astragalus pomonensis	3																					1																			2														



]	Bio	ore	gio	ons																							
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLK	FM	6H HV	I M	LM	Dim	Pcl	SI	Sm	MintC	М	MP	NR	HO	OP	PM	PMR	pp	PorR	RM	RRM	RRR	RV	SadM	SFC 52.335	SGabM	SCR	SPC	SPR	SSM	SawM	SP	SPV S	SolC	SM	TehM	D	Pell	Su	ng HA	MSM	WP	WPR
Astragalus purshii var. tinctus	45									5	2	2		3						9				(5 2	2					1			4	Ļ					5			1	2		5	5				
Astragalus pycnostachyus var. Ianosissimus	2																						2												x								Τ								
Astragalus trichopodus var. lonchus	6																						5																				1								
Astragalus trichopodus var. phoxus [var. antisellii]	83		1		8	4	3		1			? :	5	5	6 4	3	1	2		2				4	1			1	1	4			5	1	2	1		4		4			6	1				2		7	1
Astragalus trichopodus var. trichopodus	4																																					3					1								
Astragalus whitneyi var. whitneyi	3																			3																															
Athysanus pusillus	15			1									3								1						2	1						1 2	2			1		2		1									
Atriplex argentea var. expansa	7						1																4				1								1																
Atriplex canescens var. canescens	37	1				4	1	1				1	1	3 2	2			1						(5 5	5		1					1	1	1						2	3			1	l	1	L		1	
Atriplex canescens var. laciniata	4					1											1	1																								1									
Atriplex coronata var. coronata	6																										6																								
Atriplex dioica	1																						1																												
Atriplex glauca*	4																																							4											
Atriplex lentiformis ssp. breweri	7																						2										1		2	1	1														
Atriplex lentiformis ssp. lentiformis	21						1					1	1	1									6											1	6	1		3										1			
Atriplex leucophylla	8																						7												1																
Atriplex micrantha*	12																							2	2										5			5													
Atriplex polycarpa	13										1	1												1	3	3								1						4	1	1					1	I			
Atriplex prostrata*	17																		1				13												3																
Atriplex rosea*	11													1									4		2	2								1	1	1						1									
Atriplex semibaccata*	14						1												1				9															1		1	1										
Atriplex serenana var. davidsonii	4																						2												2																
Atriplex serenana var. serenana	9					1	1																2												3			1			1										
Atriplex suberecta*	9																						5					1												3			Ţ								\square
Atriplex vesicaria*	1																						1						1														T							\square	
Atriplex watsonii	5																						5						1														T					Τ	Τ	\square	



																									Bi	ore	egi	ons	5																						
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	HV	LM	LV	Plm Del	CI CI	Sm	MintC	M	MP	NR	OH	OP	PM	ΡV	PMR	PP	PorR	RM	RRR	RV	SadM	SFC 80.115	SGM	SCR	SPC	SPR	SSM	SawM	SP	SPV	SM	TabM	TTM	Pum	Pcu	Su	VH	WSM	WF	WER
Avena barbata*	221			1	14	3	3	9	3			1	6		17	7	8	3 1			6	3	3	1	2	2	1	2 1	2 5	8			5	1	3	10		4	25	2	e	5 2	2 1	2	2		2	:	22 1	5 1	1
Avena fatua*	53				3		2	1	1				1		6	1	2	2 1	1		3		1			3	2	3		1	2			2	1	3				3	1	4	t				1		2 !	1 1	1
Avena sativa*	1								1																																										
Azolla filiculoides	7												1			1																			4						1	l									
Azolla microphylla*	3																						3																												
Baccharis glutinosa	26					1			1				4			1							13												2	1	1					2	2								
Baccharis pilularis ssp. consanguinea	96						1		2				2		25 2	2 4	Ļ		1		5		2			1	1		1					3	9	8	1	9				7	7	1	1			1	2 (6 1	1
Baccharis pilularis X B. sarothroides	1																																					1													
Baccharis plummerae ssp. plummerae	13																		1		2															1	1					5	5					3			
Baccharis salicifolia ssp. salicifolia	176		3		3		3	5	5				4		15 2	2 1	0 5	i			7		6	1	2	1	1	1 5	5 5	3		1	4	5	8	7	1	9	10	2	1	8	3 1	1	8		4	2	10 !	1 6	5
Baccharis salicina	6												1												2			1	-					1	1																
Baccharis sarothroides	6																																					5		1											
Bacopa monnieri*	1																																		1																
Bahiopsis laciniata	3														1	-																																		1	1
Balsamorhiza deltoidea	36			1	2	1				2		1	1	1						1		1			2	4		3					2						1	4			2	1		4	2				
Barbarea orthoceras	23			2						1							1			5	1	3				3	2	2	2		2			1																	
Barbarea verna*	1																					1																													
Barbarea vulgaris*	2																			1															1																
Bassia hyssopifolia*	14						1																10					2						1																	
Batis maritima	5																						5																												
Bebbia juncea var. aspera	1																						1																												
Berberis aquifolium var. repens [B. repens]	1																				1																														
Berberis aquifolium var. dictyota [B. dictyota]	4							2													2																														_
Berberis nevinii	4																						1										3		?																
Berberis pinnata ssp. pinnata	1																				1																														
Bergia texana	2																								2																										

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																									B	Sio	reg	gioi	ns																								
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	HV	LM	LV	Plm	Pcl	SI	Sm	MintC	MD	NR	OH	OP 0P	PM	ΡV	PMR	PP	PorR	RM	RRM	RRR	RV	SadM	SFC	SGabM	SGM	SDC	SFU SPD	MSS	SawM	SP	SPV	SolC	SM	TehM	TTM	Pum	Pcu	Su	HA	WSM	WF	VY E IN
Berula erecta	9						1						1				Ī	Ī						l	2								Ī	1	1	1	2				l						1						
Beta vulgaris ssp. maritima*	3																						3																														
Bidens frondosa var. frondosa	1																				1	l																															
Bidens laevis	2																																				2																
Bidens pilosa*	7								1								1				1	l	2																1					1									
Bloomeria crocea var. aurea	2																																																			2	2
Bloomeria crocea var. crocea	48	2							1	1				2			1			1	2	2 1		1					3				1	1	1	2	1 2	2 1	4	1	4		3	5						4	1 1	1 1	i
Bloomeria crocea var. montana	25				2					3			3					1		2	2	1				3		2			1					1				2								4					
Boechera arcuata	38			1		1		2	1				1		3		1	3		2	2 4	4			1		1								2				1	1	1					2			5			1	i
Boechera breweri var. breweri	2																				1	l										1																					
Boechera californica	5																																										1			2	1		1				
Boechera perennans	1																			1	L																																
Boechera pulchra	50	2			1	1				6	2	2	3	2						2	2				4	3		3								3				1	5		2				1	5	2				
Boechera retrofracta	1																				?					1																											
Boechera sparsiflora	24								2						1			3			2	2 3		1		2										1	2	2	1									1	5				
Boechera xylopoda	4																											1								2										1							
Bolboschoenus maritimus var. paludosus	22				1										1		2						10)				1						1			3 1	l	1								1						
Bolboschoenus maritimus X B. robustus	1																																				l																
Bolboschoenus robustus	3																						2														l																
Bombycilaena californica var. californica	4																																					1	2							1							
Boschniakia [Kopsiopsis] strobilacea	6								1												2	2				1																				2							
Bothriochloa barbinodis	3																			1			2																														
Botrychium simplex var. simplex	1																			1	l																																
Bowlesia incana	13					1									2						1	l												1			1 2	2 1	2	1				1									
Boykinia occidentalis	2																				1	l										1																					
Boykinia rotundifolia	10																1				2	2													5											1			1			Τ	_



																										Bi	ior	egi	ion	s																							
Species	Total	AV	ABC	AM	AM	BM	BC	<u>د</u> ر	DSR	DLK	FM	GH	AH .	LM	۲۸	Pim Dal	E I		Mint	M	MP	NR	HO	OP	PM	ΡV	PMR	ΡΡ	PorR	RM	KKM	RRR	RV SodM	SFC	SGabM	SGM	SCR	SPC	SPR	SSM	SawM	SP	SPV	SolC	SM	TehM	MIL	Pum	Pcu	NH VH	MSM	WP	WPR
Brachychiton populneus ssp. populneus*	2		ľ				ľ		Ī			Ī								2												Ī		l			1																
Brachypodium distachyon*	5																1	1																				2												1	1		Τ
Brassica nigra*	46					2		2		1						3			1	l		2		3			1			2		1			1		2	1	1	4	1	1		1	4					2	2 7	2	1
Brassica rapa var. rapa*	1																					1																															
Brassica tournefortii*	8							1												2	1			4																		1											Τ
Brickellia californica	141	l	3				2	1	4	4	2			2	1	3 1	1 8	8 5	5		2	8	1		1		3	1	1	2	8	4		1			1	10		4	11	3		1	8	2	2 9	9 :	2 :	3	1() 6	3
Brickellia californica X B. nevinii	9									1				5																2																							1
Brickellia longifolia var. multiflora	6																																				1			2							:	3					Τ
Brickellia nevinii	49		1	1	1	1	4	1		1						1	1 3	3 1	1	l	1	4			1	1	1	2		2	3	2	1	3	2			1										1		1	5	1	1
Brodiaea jolonensis	3																					2						1																									Τ
Brodiaea terrestris ssp. kernensis	4																												1				2												1								\Box
Bromus arenarius*	14																					1				6			2												1	1				1 1	1		-	1			
Bromus arizonicus	2																																				2																Τ
Bromus berteroanus*	10							1																			1		1						1									5	1								Τ
Bromus carinatus var. carinatus [B. sitchensis var. carinatus]	62						1		1	2	2			2	2			9	3 3	3	8	2	3	1			5							1	2	2	1			2	1	2		2	8	1	1	1	1 3	3 1			
Bromus carinatus var. marginatus	10									1					1						4																			1	2]	1				
Bromus catharticus*	10													1							1			6										1																			1
Bromus ciliatus	1																										1																										
Bromus diandrus ssp. diandrus*	238	8			1	4	4	3 1	14	2				6		5	8	3 1	0 2	2	1	7	3	5		3	2	1	2	11 1	0	8		5	3		4	11		6	38	4			8	1	1 !	1	1 2	2 1	23	37	2
Bromus grandis	12			2	2											1	l						1			1	2								1					1	2												1
Bromus hordeaceus ssp. divaricatus*	1																																				1																
Bromus hordeaceus ssp. hordeaceus*	108	8			:	5	2	1	7	1			?	4	1	2		5	5			6	1	3			3		3	5	1	3	1	1	3		1	1		2	8	5		1	7	1 1	1	1	3 2	2 1	13	3 2	2
Bromus laevipes	6																1	1									2											1							1		1	1					
Bromus madritensis ssp. madritensis*	25					1	1	1						1			1	1 1				1		1			1		1	1				1	2			1		2	4	1			1						1	1	
Bromus madritensis ssp. rubens [B. rubens]*	312	2 2			2	1	4	3	13	3	4	6	4	9	1	.8 2	2	7 1	6 2	2	3	7	1	5	1	8	4	1	1	15	2 1	14	1	7	4		4	9		6	31	9	1	5	6	1 1	1 [5	:	3 2	21	1 17	73
Bromus orcuttianus	4																										3														1												

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																								B	ior	eg	ior	IS																							
Species	Total	AV	ABC	AM	BM	BC	cv	DSR	DLA	F.M.	ыл НV	LM	LV	Plm	Pcl	SI	Sm	MintC	MD	ND	OH	OP	PM	ΡV	PMR	PP	PorR	RM	RKM PPP	KKK	KV SadM	SFC	SGabM	SGM	SCR	SPC	SPR	SawM	CD	SPV	SolC	SM	TehM	TTM	Pum	Pcu	Su	ΗΛ	MSM 	WP	WFK
Bromus porteri	3																			ć	?											1												1					1		_
Bromus pseudolaevipes	9											1													2								1				1	2	2								1			1	1
Bromus stamineus*	4							4	2																																		2								
Bromus sterilis*	13						2									1																2						3	1	2									1	1	2
Bromus tectorum var. tectorum*	380	2		13	22	1	1	9 2	2 2	2 1	6 3	7	2	6		1	8	4	2	0 1	2 3			6	17	2	5	3	1 1	2	1 1	4	2	14	4			3	3 4	4 1	3	1		2	11	85	4		5 :	3 2	2
Caesalpinia pulcherrima*	1	1																																																	
Caesalpinia spinosa*	1	1																																																	
Cakile maritma ssp. maritima*	6																					4													2																
Calandrinia breweri	2																1			1	L																														
Calandrinia menziesii [C. ciliata]	30						2	1	l		1	2		1									1	1			2					1	1		1		1	1 1	1	2	5	2	3	1							
Calendula officinalis*	1																																															1			
California macrophylla	6																										2	1							1								1							1	1
Callitriche heterophylla var. bolanderi	1																																		1																
Callitriche marginata	4																										3								?				1	1											
Calocedrus decurrens	27			5				2				1													10								1					2	2							3	1	2			
Calochortus albus	10																			1	l							1								5						1						1		1	1
Calochortus catalinae	25							2	2											4	2	1											1		1		2	2				5						9			
Calochortus clavatus var. clavatus	93	2	1	1		6	5				1	2		4	3			4	2	2 1	L		4	1				7			3	3			6		-	3	1	5	2	3		1	4			1	2 4	4 :	2
Calochortus clavatus var. gracilis	70				3	2	1	25				1		2	1			1					1				1	2	4	4		2	1		2			2	1	7	3								ç	9	
Calochortus clavatus var. pallidus	8												1						1	2																1	2	1							1					:	2
Calochortus coeruleus	1																		1																																
Calochortus fimbriatus	9							1	l										1	. 2	2 1																1					1		1						1	1
Calochortus invenustus	25			2			2			2			2				2	1	8	3					4								1					1													
Calochortus kennedyi var. kennedyi	27	1		1	1					3	4		3						3	3			1	1										3					4	4						2					1
Calochortus luteus	1													1																			1											1		\square	1	T		Τ	
Calochortus palmeri var. palmeri	18			1		1				1				1			1						l		1							10							1	1						\square	2				

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																										Bi	ior	eg	ior	ıs																								
Species	Total	AV	ABC	AM	DM	BM	BC	cv	DSR	DLK	FM	GH	HV	LM	L V Di	P.dl	D. IS	Sm	MintC	M	MP	NR	HO	OP	PM	ΡV	PMR	PP	PorR	RM	RRM	RRR	RV	Sadivi	SFC	SGADIM	SCR	SPC	SPR	SSM	SawM	SP	APV	SolC	SM	TehM	TTM	Pum	Pcu	Su	ΥН	MSM	WP	WPR
Calochortus plummerae	3			T						T	T																								1	1				1		Γ		1							T			
Calochortus rustvoldii	2																																		1	1								1							1			1
Calochortus splendens	20						1	1							1			1	5		4						2							1	2	1	l							2										
Calochortus venustus	87	3	1	1	1	1	3	1	1	1	3		1	2 2	2			1	2		5	2	1		1	2	3	1	1	6					1 2	2 2	2 1	2			2	8	;			2			10) 5		2	2	3
Calycoseris parryi	1						1																																															
Calyptridium monandrum	70	2		1	1	1	1		2	1	3		1	2	1	1		2			3		1		1	1	4		5	1			1		1 2	2 3	3				7	1		8					4	6		2		2
Calyptridium monospermum	11														1						5						4			1																								
Calyptridium parryi var. parryi	15			1	l					1	2	1		2	2						2	1					2						1			1	l																	1
<i>Calyptridium</i> sp. nova	2																											1					1																					
Calyptridium umbellatum	9														1						7						1																											
Calystegia longipes	14	1												1															3	2		1			1	1	1				1		2									1		
Calystegia macrostegia ssp. arida	1																																											1										
Calystegia macrostegia ssp. cyclostegia	30															1 1	4					1		4													5	1	3	3			1	T	3						2			1
Calystegia macrostegia ssp. intermedia	33									1					2	2	1					2		2											1	1	1	8		3		1			5		2				3			1
Calystegia macrostegia ssp. macrostegia	8						1																	2					1								1			1		1									1			
Calystegia malacophylla ssp. malacophylla	4				2	2															1	1																				Ι												
Calystegia malacophylla ssp. pedicellata	66		1	1	l					2	9		1			1		2			4	3	2			1	3	1					3			4	5	3							1				16	6	1			
Calystegia malacophylla ssp. tomentella var. deltoidea	1																				1																							1										
Calystegia occidentalis ssp. fulrata	9					-	3						1		1														1												2			1										
Calystegia occidentalis ssp. occidentalis var. tomentella	1																				1																																	
Calystegia peirsonii	173	5				1	5	6	1				(6	1	2			1						1				15	7	3	3		1 (6 2	2				1	15	5 57	7 1	3							1	5	11	1
Calystegia peirsonii X C. occidentalis subsp. fulcrata	10																												8						2																			
Calystegia purpurata ssp. purpurata	12									1												8						1												1					1									
Calystegia soldanella	7																							6													1											Ī	I					
Camissonia campestris ssp. campestris	73				() -	3		1	1	1	1	2	2 1	0	1			1			4					11	2		12			1			1 1	1 2	2					1		9		5				1				
Camissonia contorta	4												1														1								1													Ī	T	1				



]	Bio	ore	gio	ons	5																							
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	НV	LM	LV	Plm	Pcl	SI	Sm	MintC	M	MP	NR	0H OB	0P	PM	FV PMP	pp	PorR	BM	RRM	RRR	RV	SadM	SFC	SGabM	SGM	SCR	SPC	SPR	SourM	CD	SP	Solf	SM	TehM	TTM	Pum	Pcu	Su	ΗΛ	WSM	WP	WPR
Camissonia kernensis ssp. gilmanii	1												1																																								
Camissonia lacustris	1																																																1				
Camissonia pusilla	3																																		1								2	2									
Camissonia strigulosa	73				3	1	1		1		1	1	5	1				1					1		2	2 2	2	9)			3		1	7				1	1 8	3	1	1	3		1		2	5		1		1
Camissoniopsis bistorta	30					2	3						2				1					2						1	4	Ļ		1		3	2		3		4	5						1							
Camissoniopsis cheiranthifolia ssp. suffruticosa	10																						9	9													1																
Camissoniopsis confusa	29			1	2	1		3				1														2	2	2	2					2	4		1			2	2	1	3	3							3		1
Camissoniopsis hirtella	58						1	1	2				5						5			2	2			1	l	7	2	2				4	8		1		64	3		3	5	5				1	4				1
Camissoniopsis ignota	12						1	1	1				1									1	1					1						1							-	2 1	L								1		
Camissoniopsis intermedia	44								6				3					2				2				2	2							1	1		2		2 2	2 1	3	1	2	2					2	1	1		1
Camissoniopsis lewisii	1																																										1	l									
Camissoniopsis micrantha	17					2	1		1					1	1			1						4										2	1		1												1			1	
Camissoniopsis pallida ssp. pallida	19					1						?				1		1							1	1		4	1	-				1	2						4	2	3	3					2				
Camissoniopsis robusta	1																																		1																		
Canbya candida	1																																		1																		
Cannabis sativa*	1																												1																								
Capsella bursa-pastoris var. bursa- pastoris*	18								1						3							1		1				1		1				1	1		2			1	1	1		2	2 1	1							
Cardamine breweri var. breweri	1																				?					1	l																										
Cardamine californica var. californica	9																												2	2 1	1			1										3	;						1		
Cardamine oligosperma	1																																											1	L								
Cardamine pachystigma var. pachystigma	4								1														1			1	l																						1				
Cardaria chalepensis*	2								1									1																																			
Cardionema ramosissimum	4																																						<u>, , , , , , , , , , , , , , , , , , , </u>	3						1							
Carduus pycnocephalus ssp. pycnocephalus*	39														2		1					1							6	5 2				1	1		3	3	4	5 2	2			1	ı	1				1	7	1	1
Carduus tenuiflorus*	1					1							1						T	T	T	T														T	T	T	1	1											Ţ	T	
Carex abrupta	2																				2																																



																									B	ior	eg	ioi	ns																							
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	HV	LM	LV Bi	Plm ъ.	rcı ar	SI a	Sm	MintC	MD	NR	HO	OP	PM	ΡV	PMR	PP	PorR	RM	RRM	RRR	RV	SadM	SFC	SCAUM	SCR	SPC	SPR	SSM	SawM	SP	SPV	SolC	SM	TehM	TIM	Pum	Pcu S	nc VH	MSM	WP	WPR
Carex alma	37					1		1		1			2	3					1	7	1								2	2	1	1		1 (5						3					1				3		
Carex athrostachya	4																			4	Ļ																															
Carex aurea	2																			2	2																															
Carex barbarae	1																	1																																		
Carex bolanderi	1																			1																																
Carex brainerdii	1																																					1														
Carex densa	5							2					1																					2																		
Carex douglasii	10			2						1				2	1					2	2														1						1											
Carex fracta	6												2							2	2					2														1										1		
Carex globosa	1																																															1				
Carex hassei	2													1						1																																
Carex multicaulis	3																																							1			1					1				
Carex nebrascensis	1																			1																																
Carex nudata	5																																													4	5					
Carex pansa	2																						1													1																
Carex pellita	6												5							1																																
Carex praegracilis	33					1		1		?			5	1						3	3	1	5		7	?		1						2	1 2	2							1		1			1				
Carex rossii	1																			1																																
Carex schottii	10					1														2	2													1 1	l												,	7				
Carex senta	24							1						1			2	5			1	1				2			1					1			2									1	1	1 4	Ļ			
Carex spissa	1																																	1	l																	
Carex subfusca	9									1		1		1				1		1	-					2									1													1				
Carex triquetra	4																																						4													
Carex vulpinoidea*	1													1		Ι																																				
Carpobrotus chilensis*	5																						4													1																
Carpobrotus edulis*	4															Γ							3													1																



																								Bi	ore	egi	ons	5																					
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	FM	GH	HV	ΓM	LV	Plm	Pcl	SI	Sm	MintC	MP	NR	HO	OP	ΡM	ΡV	PMR	rr ,	Pork	RRM	RRR	RV	SadM	SFC	SGabM	SCR	SPC	SPR	SSM	SawM	SP	SPV	SM	TehM	TTM	Pum	Pcu	Su	НЛ	WSM	WPR
Carthamus creticus [C. baeticus]*	6																																				2		4										
Castilleja affinis ssp. affinis	33								1					1			1							1	1		2					1		1	1	2	7	1	2		6	5			1		4		
Castilleja applegatei ssp. martinii	60			7	1		1		e	5		3		1			5		10	2					9					2					4		1	1		1	1 1		1		1	2		1 ?	?
Castilleja applegatei ssp. pinetorum	9												1						7		1																												
Castilleja attenuata	3																										1			2																			
Castilleja chromosa	2																		1																		1												
Castilleja exserta ssp. exserta	49				1	4	6	1 1				1		2	1			1		1		1		4	1		1 1							1		1	4		9		1	3						1	2
Castilleja exserta ssp. venusta	1																							1																									
Castilleja foliolosa	80		1		3	2	3	1				11		5	2	1	1	3		2				4			5 2	1	2		1	7	5		2	1	1		4	2	2					1	1	3	3 3
Castilleja gleasoni	9											1															1						3						2	2	2								
Castilleja gyroloba	1										?																																	?				1	
Castilleja linariifolia	21	1									?		1				1		1					1	2		1												2	2	2				8	1			
Castilleja miniata ssp. miniata	8												2				1		4						1																								
Castilleja minor ssp. minor	15																2											1	1									3							7			1	
Castilleja minor ssp. spiralis	28		1	1		1	1					2	1			1	2	1	5						2		2	2										1							3	2			2
Castilleja plagiotoma	1	1									?																																						
Castilleja subinclusa ssp. franciscana	5												1							1						1															1				1				
Castilleja subinclusa ssp. subinclusa	71	1		2		2		1 1	. 4	2	2		4				2	1	3		2			2	5	1	7			1		1	2	Ļ				2	8			1			7	5		Τ	
Castilleja tenuis	3			1													1																1																
Caulanthus amplexicaulis var. amplexicaulis	43				1			2				2	1						1								2 1					3	3 2	2				24										1	
Caulanthus anceps	3																		1								1						1																
Caulanthus cooperi	2																										1												1										
Caulanthus coulteri var. coulteri	63		1		1		2	1 1		2		7	1	1			2	2	1	1				9	6	1 1	2 1				1						1		1			5					\Box	Τ	3
Caulanthus heterophyllus var. heterophyllus	2																			1																							1						
Caulanthus inflatus	1																								1																						\Box		
Caulanthus lasiophyllus	33		1		1		1										2			1			3	1	1	1			1	2			2	1			1	2	6	2	2			1					2



																									B	sion	reg	jio	ns																								
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	ΗΛ	LM	LV	Plm	Pcl	SI .	Sm	MintC	MD	ND	OH	d0	PM	PV	PMR	PP	PorR	RM	RRM	RRR	RV	SadM	SCobM	SCM	SCR	SPC	SPR	SSM	SawM	SP	SPV	SolC	SM	TehM	TTM	Pum	Pcu	Su	HV	WSM	40.M	WEN
Caulanthus lemmonii	2								1			l				Ī		Ī		1	L																												l			T	
Ceanothus cordulatus	23			5						3				1						5	5 3	3				4																	i			2						T	
Ceanothus crassifolius var. crassifolius	42						1		2								2	5			9	3 1		1		1						1		1	1	1	1		1		1		3			2			3			2	2
Ceanothus crassifolius var. planus	31								5									5	2		7	7 2				2	2							1	l								1			2			2				
Ceanothus crassifolius X C. pauciflorus	1																																	1	l																		
Ceanothus cuneatus var. cuneatus	116			1	5	2	3	9	1	2			4		3	1	2	1	3	1	1	l		2		3		9	6	1	7			7 1	1	1	3			3	9	1	4			2	1	1	1		4 7	3	3
Ceanothus integerrimus var. macrothvrsus	15							2					1							2	2				1			2						1 1	l					4			1										
Ceanothus leucodermis	120	1		4			1	4	5			1	1		1		1	0	1	1	1	0 4				11		5	3			3	1	2 5	5		1			9	2		2			5		18	7		2	1	1
Ceanothus leucodermis X C. oliganthus	1																																				1						i									T	
Ceanothus megacarpus var. insularis	1																																	l																			
Ceanothus megacarpus var. megacarpus	7																				2	2	1														2		1					1									
Ceanothus megacarpus var. pendulous	1																				1	L																															
Ceanothus oliganthus var. oliganthus	51								1						5	2	6				8	3					2							1 3	3	2	6						1	3			3			1	1	6	5
Ceanothus oliganthus var. sorediatus	2																1																																			1	ı
Ceanothus palmeri	40			3		1			3	2				1				3			4	4 2				7						1				1				1						8			3				
Ceanothus papillosus ssp. papillosus	3																				3	3																															
Ceanothus pauciflorus	50			2		1				2		2		4	2					0	3					5		5							4					2	5		1		1		1	10					
Ceanothus perplexans	10									2				1	3													1							1								1								1		
Ceanothus spinosus	10																				6	5														1	1							1								1	i
Ceanothus thrysiflorus ssp. thrysiflorus	2								1																																											1	i
Ceanothus tomentosus var. olivaceous	2																																				1		1				ł										
Cenchrus echinatus*	1																																						1				ł										
Cenchrus longispinus*	1																																						1						╡							T	
Centaurea benedicta [Cnicus benedictus]*	22				5		1	1	1			1													2	1	1	3				1		1			ĺ		1	1					╡		1		1			T	
Centaurea cyanus*	1																																						1	l					╡							T	
Centaurea melitensis*	149				4	4	6	4	2				5		12	1	3	5			5	5	5	1					16	2	12	1	1	2 4	1	1	5	1	4	5	1		1	7	T	1			1	2 1	15 1	1 1	1



]	Bio	ore	gio	ons	5																							
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	HV	LM	LV	Plm	Pcl	SI	\mathbf{Sm}	MintC	М	MP	NR	OH	OP	PM	PMP	PP	DorD	RM	RM	RRR	RV	SadM	SFC	SGabM	SGM	SCR	SPC	SPR	South	CD	or Gener	SPV	SM	TahM	TTM	Pum	Pcu	Su	НЛ	WSM	WP	WPR
Centaurea solstitialis*	23														1		2	3								1 3	3				2	2							1	l				1		1			4			2	
Centaurea stoebe ssp. micranthos*	1																					1																															
Centaurium pulchellum*	2																																							1	l										1		1
Centranthus ruber*	3																							1																	1	1	1										1
Centromadia pungens ssp. pungens	1																																		1																		1
Centrostegia thurberi var. macrotheca	1																																			1																	1
Centrostegia thurberi var. thurberi	38										1		2	2			1	1			3					5	5	6	5							6				2	2							8	1				
Cerastium glomeratum*	6																					1																	1	l				1	2								1
Ceratophyllum demersum	4						1								1							1														1																	
Cercocarpus betuloides var. betuloides	217			2	8	1		14	3	4	7	2	7	1	2		3	7			2	11	3	1	2	2 1	0 2	2 7	7	2	6			1	3	4		4	1 2	2 2	5 4	4	1	4	1	3	9	9	6		16	4	4
Cercocarpus betuloides var. blancheae	3																																		1		1		1	l													1
Cercocarpus ledifolius var. ledifolius	4													1							3																																
Cercocarpus ledifolius var. intermontanus	7													1							2																									1		3					1
Chaenactis artemisiifolia	6																							2		1	l								3																		1
Chaenactis fremontii	5											1																1	l						1								2	2									
Chaenactis glabriuscula var. glabriuscula	144			1	10		4	2	2	1	?	4	5	2	3		1	3	3		2	2		1	1	3 3	3 1	4	4 2		1	3	1	3	6	2	3	2	1 3	3 5	5 4	4	1 1	2	5			9	8	1	3	1	1
Chaenactis glabriuscula var. heterocarpha	2																									1	l																						1	T			1
Chaenactis glabriuscula var. lanosa	8								1					1							1			2				2	2			1																		1			
Chaenactis glabriuscula var. megacephala	2																1	1																																T			
Chaenactis glabriuscula var. orcuttiana	2																																		1		1																-
Chaenactis macrantha	1																											1	l																								1
Chaenactis santolinoides	41			3						3	1		1	1							7	1	2			7	7	2	2							3	1			1	l		2	2		2		1	3				
Chaenactis stevioides	19			1						1			3	1							1					2 2	2							2	1						1	1	2	2	2								-
Chaenactis xantiana	60				1			1			1	2	8	3							2				1	6 2	2	1	6	1	1			1						1					5		1		1		Π		
Chamaesyce albomarginata	49	1			3	2	2			2	1	3	1	2	1	1		1	2						3	1 1	l	2	2 1				1	2					2	2		3	1 5	5					1		Π	1	3
Chamaesyce maculata*	8																			1				4				1	l						1									1							\square		



]	Bic	ore	gio	on	s																								
Species	Total	AV	ABC	AM	MIN	BM	BC	cv	DSR	DLK	FM	GH	AH	LM	r v	Plm	Pcl	S	Sm	MintC	W	MF	NR 201	HO	Ur M	PM	PV	PD	DowD	FOFK	RM RRM	RRR	RV	SadM	SFC	SGabM	SGM	SCR	SPC	SPR	SSM	SawM	SP	SPV	SolC	SM	TehM	TTM	Pum	Pcu	Su	ΗΛ	MSM	WP	WPR
Chamaesyce melanadenia	1			T			T					T													1				T			T		T																			Π		
Chamaesyce micromera	1																																								1												Π		
Chamaesyce ocellata ssp. ocellata	3																										1	l				1											1										Π		
Chamaesyce polycarpa var. polycarpa	5																							1	2		1														2												\square		
Chamaesyce prostrata*	5																				1			-	2																2												Π		
Chamaesyce serpens*	2																								1												1																Π		
Chamaesyce serpyllifolia ssp. serpyllifolia	8								1					1									1	2	2				1	1			1			1																	Π		
Chenopodium album*	54					3	1		2	2	1				1			1	1			4	1	ź	2		2	2	2	2	1 1		1		2	1	2	2	2	1	2	5								2	2		6		1
Chenopodium atrovirens	1																										1	l																									Π		
Chenopodium berlandieri var. sinuatum	9																												1	1	1 2								1		1	1						1					\square		1
Chenopodium berlandieri var. zschackei	11					4	2	1						1						1					1											2						1		2									Π		
Chenopodium californicum	55	1				2			1		1		1	1		3			3						1	1 :	5 3	3		3	1				1	2		1	1	2	3	1	4		5	2	2				3	1	\square		
Chenopodium chenopodioides*	2																																					1		1													\square		
Chenopodium desiccatum	7							1																											1					1		1			3								Π		
Chenopodium fremontii	8														1							4		1			1	l																				1					\square		
Chenopodium glaucum var. salinum*	2																							-	2																												Π		
Chenopodium hians	2																					1					1	l																									\square		?
Chenopodium leptophyllum	2													1																					1																		\square		?
Chenopodium macrospermum var. halophilum*	5																							-	3													2															\square		
Chenopodium murale*	13																							5	8										1	1					1		1			1							Π		
Chenopodium pratericola	3																					1					1	l							1																		Π		
Chenopodium rubrum var. rubrum	5														1										1					3																							Π		
Chenopodium strictum ssp. glaucophyllum*	1																																								1												Π		
Chenopodium strictum ssp. strictum*	2	1		l				T	T		T			1														T	1			1											1									1	Π	T	
Chloris virgata*	1																																	Ī							1												Π		
Chlorogalum pomeridianum var. pomeridianum	28	1		Ī			1			1						3		1	1				8				1	l I	1			1				1	l	1	2	1	2					1						ĺ	1	2	1

Botanical Resources of the Utom (Santa Clara) River Watershed Project No. 60-6013-1 CALIFORNIA NATIVE PLANT SOCIETY

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																										Bio	ore	egi	on	s																								
Species	Total	AV	ABC	AM	MM	BM		DCP	Neu	DLA	гм Сп	ПV	I.M	TA	Plm	Pcl	SI	Sm	MintC	М	MP	NR	ΟH	OP	PM	PV	PMR	PP 7	Pork	RM RRM	RRR	RV	SadM	SFC	SGabM	SGM	SCR	SPC	SPR	SSM	SawM	SP	SPV	SolC	SM	TehM	TTM	Pum	Pcu	Su	VH T	WSM	WP	WPK
Chloropyron maritimum ssp. maritimum	13														1									12													1																	
Chorispora tenella*	1													1																																					T			
Chorizanthe blakleyi	1																										1																											_
Chorizanthe brevicornu var. brevicornu	2						1	l																																														1
Chorizanthe breweri	1																																																			1		
Chorizanthe clevelandii	12					1	l		1	l								1				1										3							1		3	1												
Chorizanthe douglasii	1																																						1															
Chorizanthe membranacea	1					1																																																
Chorizanthe parryi var. parryi	2																																									1									1			
Chorizanthe parryi var. fernandina	6						1	l																					4								1			?														
Chorizanthe procumbens	1																1																																					
Chorizanthe spinosa	2																												2																									
Chorizanthe staticoides f. bracteata	1																																														1							
Chorizanthe staticoides var. staticoides	97		1		1	2 2	2 4	1 5	5 1	l	1	1	3					1	12			2				3			7	5		2	3	5	5			2	1	2	2	6		10	1		1		5			1	1	
Chorizanthe uniaristata	2																							1																										1				
Chorizanthe watsonii	25			1	l					1	1	2	3	1							2					2	1								2	2					3	1		1				1	1					1
Chorizanthe xanti var. xanti	55	1					2	2				1	6		1		1					1			1	2	1	1	3	2		1			3	1					2	5		6		1		2		1				1
Chrysanthemum coronarium*	1																																																		1			
Chrysothamnus viscidiflorus ssp. viscidiflorus	11														1				1		10																																	
Chylismia brevipes ssp. brevipes	1																																							1														
Chylismia claviformis ssp. claviformis	4									1	1																		2													1												
Cichorium intybus*	2																																				1													1				_
Cicuta maculata var. bolanderi	2				T																																1			1										T	T		T	
Cirsium arvense*	1																			1																																		
Cirsium occidentale var. californicum	50					4	1	1	1 1	1	1 1	1 2	3	1			1	3			1					3	3							2	2			1		3	2	3				1			5	3	T	2	1	
Cirsium occidentale var. coulteri	2																							1																		1									T			_



																								B	sio	reg	gioi	ns																							
Species	Total	ΑV	ABC	AM	BM	BC	CV	DSR	DLM	L M	ни	TM	LV	Plm	Pcl	SI	Sm	MintC	M	MP	NK	ao	Md	Ad	PMR	ЪР	PorR	RM	RRM	RRR	RV	SadM	SGahM	SGM	SCR	SPC	SPR	SSM	SawM	SP	SPV	SolC	SM	TTM	Pirm	Pcu	Su	НЛ	WSM	WF	WFK
Cirsium occidentale var. occidentale	40		1				1					1								1		1			3		1		2	1	1		3			2		3	3	2	1					7	2		ć	2 2	2
Cirsium occidentale var. venustum	35			1				2	2 1	1	1	1	2				2			4	1 2	2		2	4	1	5			1	1		1	2														1			
Cirsium ochrocentrum var. ochrocentrum*	1																																		1																-
Cirsium scariosum var. citrinum	5												2							3																															
Cirsium vulgare *	22					2						2		4							1	1 4	Ļ					1	1						2			1	1						1		1	1			
Cistus incanus*	3																				1												2																		
Cistus ladanifer*	13							1				1																				4	1 5				1													1	
Citrullus lanatus*	1																											1																							
Citrus Xaurantium [C. maxima X C. reticulata]*	1																					1																													-
Clarkia affinis	1																																										1								
Clarkia bottae	51							3	3					1		1	3	2			4 3	3			5		1				2		10)		2		2		1	1	1	1	3	3		4			1	1
Clarkia cylindrica ssp. clavicarpa	2																	1													1																				
Clarkia cylindrica ssp. cylindrica	28		1					1			2	2					1				1			1	1		2	1				2	2 2		1			2	1	1				2	1			1		2	2
Clarkia dudleyana	9							1	l								1	2							1		1					1	1										1								
Clarkia epilobioides	9							1													3							2				1	l							1				1							
Clarkia heterandra	24			1						?		4									1 2	2			3		8				1	1	l						2								1				
Clarkia modesta	1																								1																										
Clarkia purpurea ssp. purpurea	7																						1				5													1											
Clarkia purpurea ssp. quadrivulnera	46					1	2							1		3	1				6 1	l			1	1	3	1			3	2	2 6	1		4		2		2			2			1				2	2
Clarkia purpurea ssp. viminea	3																	1																									2								
Clarkia rhomboidea	17								1	1		5									1	l			1		3				2								2							1	1				
Clarkia similis	2		1																														1																		
Clarkia speciosa ssp. polyantha	1																																											1							
Clarkia speciosa ssp. speciosa	1																																																	1	1
Clarkia unguiculata	47					2		1						2	1	2	1												2							7			16	1									12		
Clarkia xantiana ssp. xantiana	9								1	1		6								?							2																								



																									Bic	ore	gio	ons																							
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLK	FM	GH	HV I M	T.V	Plm	Pcl	SI	Sm	MintC	М	MP	NR	HO	OP	PM	PV	PP	PorR	RM	RRM	RRR	RV	SadM	SFC	SGADM	SCR	SPC	SPR	SSM	SawM	SP	SPV	SolC	SM	TehM	TTM	Pum	Pcu	Su VH	MSM	WP	WPR
Claytonia exigua ssp. exigua	19					1		1			1	2	1				1								1	l	1	1			2				L				2	1		1						1			1
Claytonia gabrielensis ssp. gabrielensis	1																																						1												
Claytonia parviflora ssp. parviflora	69			1	1	1	1	1	1	1	5	1		2	2		2				2			1	2 1	l	11	1			1	1		7		1		1	7	3		4		1			2	3	1	1	2
Claytonia parviflora ssp. utahensis	5					1					1													1															1	1											
Claytonia parviflora ssp. viridis	6								1		1						1																	1								2									
Claytonia perfoliata ssp. intermontana	5								1			2	2																										1								1				
Claytonia perfoliata ssp. mexicana	13							1	1												3							1					1	2		1			1						2						
Claytonia perfoliata ssp. perfoliata	42		1			2		2	1	1		2	2	2	1		1				2						1				1			3		3		4	4	1			4		1			1 1	1		3
Claytonia rubra ssp. depressa	1																										1																								
Claytonia rubra ssp. rubra	17				1				1	1		1					2			1	1	1			2	2	2			1					l				2												
Clematis lasiantha	45	1	1					1	2			2	2	1		4	1				6				1	1 2		4						2		4	2		1				1		2		1		2	1	3
Clematis ligusticifolia	45		3						1			2	Ļ	1		2	2			8	3	2			2	2	1				1			1	1	3							1		1	1	5	2			
Clematis pauciflora	1																				1																														
Clinopodium douglasii	1																																															1			
Clinopodium mimuloides	6																												1					1					1						1						2
Colletia paradoxa*	1																						1																												
Collinsia bartsiifolia var. bartsiifolia	5																								1		4																								
Collinsia bartsiifolia var. davidsonii	15					1																			3 1	1	7																	3							
Collinsia callosa	19									2	2	2	1							3		1			3	3	3							1														1			
Collinsia childii	11																				1	3			2	2													2			1						2			
Collinsia concolor	1																											1																							
Collinsia heterophylla var. austromontana	2																																		1														1		
Collinsia heterophylla var. heterophylla	35							2						3							5				1					1			2	4		3		4	2			3	2		1				1		1
Collinsia parryi	12											1					1										1				3			5				1													
Collinsia parviflora	5																			1														1				1		2											
Collinsia torreyi var. wrightii	7									1										4					2	2																									



																									Bi	or	egi	ion	s																							
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	HV	LM	LV	Plm	Pcl	<u>81</u>	Sm Mi-1C	M	MP	NR	HO	OP	PM	ΡV	PMR	PP	PorR	RM RPM	RRP	RV	SadM	SFC	SGabM	SGM	SCR	SPC	SPR	SSM	SawM	SP CDV	SolC	SM	TehM	TTM	Pum	Pcu	Su	HA	WSM	WP	WPR
Collomia grandiflora	20			1					1				4					1		1		1				5		1												2							1	1	П	1		
Collomia tinctoria	3													1												2																							П			
Comarostaphylis diversifolia ssp. planifolia	0																				?																						?						?			
Conioselinum pacificum	1																																			1																
Conium maculatum*	5																						1													1			1				1						1			
Conringia orientalis*	1																																			1													Π			
Convolvulus arvensis*	14					1								1									10																				1						Π			1
Convolvulus simulans	1																																						1													
Conyza [Erigeron] bonariensis*	9																1				1		4													2			1													
Conyza [Erigeron] canadensis	38								1				2				4	1			1		8					1	1					1		2	2		2	9			1						Π			2
Conyza floribunda [Erigeron sumatrensis]*	3																						3																										\Box			
Cordylanthus nevinii	18																			5						7																	1				5					
Cordylanthus rigidus ssp. rigidus	40				1	1		1	2	3	3		1	2				3		1	2	1			1	6	2						1	1	1		1						3		1			2				
Cordylanthus rigidus ssp. setiger	16				2								1						2						1			1		1	l		1							4		1								1		1
Cordyline fruticosa*	1																						1																													
Cordyline terminalis var. cannifolia*	1																						1																													
Corethrogyne filaginifolia var. californica	1																																							1									Π			
Corethrogyne filaginifolia var. filaginifolia	272	1	?	4	10	2	2	9	2	6	6	1	6	1	15	?	2 1	0	7	11	1 3	2	7	1	6	9	2	2	12 5	5 13	3 1	1	5	1	5	3	4	1	3 2	25	2	1 4	4	?	1	7	18	2	1	17	8	1
Coriandrum sativum*	1																																			1																
Cornus glabrata	9			1																	2						1				4									1												
Cornus nuttallii	2			?						?			1							?								1																								
Cornus sericea ssp. sericea	1																																										1									
Cortaderia jubata*	3																											3																								
Cortaderia selloana*	8																Ι						4		2				Ι							1	1															
Cotinus coggygria*	1																						1																													
Cotoneaster pannosus*	1																				1																															


																										Bi	ior	eg	ior	IS																							
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	HV	LM	LV	Plm	Pcl	SI	Sm	MintC	М	MP	NR	HO	OP	PM	ΡV	PMR	PP	PorR	RM	RRM	RRR	RV	SadM	SEC	SGabM	SCR	SPC	SPR	SSM	SawM	SP	SPV	SolC	SM	TehM	TTM	Pum	Pcu	Su	ΗΛ	MSM	WP WPR
Cotula australis*	5								1													1													1	1										П	1						
Cotula coronopifolia*	13	3														1								7													3								2	П							
Cotyledon orbiculata var. oblonga*	2																							1																											1		
Crassula aquatica	2			1																																	1																
Crassula connata	18	3				2	1											1				1		2												1		1		1	1	5		1			1						
Crassula tillea*	1																																																		1		
Crataegus phaenopyrum*	3																							3																													
Crepis acuminata	4			1						2				1																																							
Crepis occidentalis ssp. occidentalis	10)		1						1				1							2						3																						2				
Crepis occidentalis ssp. pumila	6			1						1											1						1									1	2																
Cressa truxillensis	13	3			1																			11					1																								
Crocanthemum scoparium var. scoparium	7								1																										-	3				2												1	
Crocanthemum scoparium var. vulgare	5																													1					1					1	1					П						1	
Croton californicus var. californicus	18	3													1	1								5													4			2						1		1			2		1
Croton [Eremocarpus] setiger	40)		1		1	1		1			1	2		11		1																		1	2	1	1	1	2	1		1	1	2	П	1		1			1	3 2
Crypsis schoenoides*	14	ŀ				2											1	1						2					2				3			1	2	2								П							
Crypsis vaginiflora*	1																																									1											
Cryptantha affinis	2																						1																											1			
Cryptantha barbigera var. barbigera	8																				1						4									1						1		1									
Cryptantha clevelandii var. clevelandii	24	ŀ							3				2					2				1	1				4		1			1			1		1		1			4					1			1			
Cryptantha clevelandii var. florosa	16	5				1			2					2				4				1		2			1																						2				1
Cryptantha clokeyi	3																																			1					1	1											
Cryptantha corollata	36	5			1		3		3			?	1	1	1		4	1				3				1	4		1	1							ι			3		2								2			3
Cryptantha decipiens	19)			1				1			?	3					1				2				1	2								1			1	1							1		1		2			1
Cryptantha echinella	18	3								3											4	1	1				2													2							2			2			1
Cryptantha flaccida	5						1		1									2									1																										



																								•	Bio	ore	gio	ons																							
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	HV T	LM	L V Di	Pel	IS	Sm	MintC	М	MP	NR	HO	OP	PM	PV	PMK	P.F.	BM	RRM	RRR	RV	SadM	SFC	SGabM	SGM	SUK	SPC	WIS	SawM	SP	VQS	SolC	SM	TehM	TTM	Pum	Pcu	Su	NSW WSW	MP	WPR
Cryptantha hispidissima	9																2				1					2																			1			3			
Cryptantha holoptera	1											1																																							
Cryptantha humilis	1																																					1													
Cryptantha intermedia var. intermedia	77			1			1		1	1			4	~ ,	3	1	1	1		2	3					3	4,	5 1			1		4	11		2		3	9	2		7	2		1			1 1	1	3	2
Cryptantha intermedia var. johnstonii	10						2																					1								3		4													
Cryptantha juniperensis [C. nevadensis var. rigida]	78	1			3	1	2			?	?	3	1	1			3	1		1				2	4	6	8	3					1	13	1				1	6		13		2					2	!	2
Cryptantha leiocarpa	2																																			1												1			
Cryptantha maritima	4																2						1																									1			
Cryptantha microstachys	45						2	1	1	1										1	2						2	2 2		1	1		5	9	1			1	1	4		4					1	1			4
Cryptantha mohavensis	1									1																																									
Cryptantha muricata var. denticulata	15				4			1					3	1															1			1		1		1						1							1		
Cryptantha muricata var. jonesii	32							1	2				1	1			1			1	?		1			4	2	2 2					4	2				?	8			1	?					?	1		
Cryptantha muricata var. muricata	81		1		1		4	4	2		1	2	8				?	3		1	1	?		1	2	1	7	7 1			2		4	10				?	2	6		10	1				1	1	1	. 1	2
Cryptantha nemaclada	11								1								2					1			(6																						1			
Cryptantha nevadensis var. nevadensis	34				5		1	1	1	1		1	2	2 1	Į		2								1	4	2	2														2				1	1	2	5	;	
Cryptantha oxygona	39	1		1	1			1		1	1	1	1							1					4	1	1	1			1			2						3		3		3							2
Cryptantha pterocarya var. pterocarya	13	1								?	?	1		1													1	l						1						1		7									
Cryptantha pterocarya var. purpusii	3																																	1								2									
Cryptantha rattannii	2								1								1																																		
Cryptantha similis	7										1	1															2	2						1								2									
Cryptantha simulans	19			3					1			1										2				1	2	2			4				2												1	1			1
Cryptantha sparsiflora	4																									3														1											
Cryptantha sp. nova	2																																	2																	
Cryptantha torreyana var. torreyana	8								2								1					2				1					1																	1			
Cryptantha utahensis	3																																	1								2					Τ				
Cucurbita foetidissima	23				1								1	1	2		1						1				1	L					1	1		2		5		1		1	1						1	. 1	1



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Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	HV	LM	LV	Plm	Pcl	SI	Sm	MintC	MP	UN DI	HO	OP	PM	PV	PMR	PP	PorR	RM	RRM	RRR	RV	SadM	SFC	SCM	SCR	SPC	SPR	SSM	SawM	SP	SPV	SolC	SM	TehM	TM	Pum	Pcu	NH VH	MSM	WP	WPR	
Cucurbita pepo var. pepo *	1																			l																														Τ			
Cuscuta californica var. californica	46		?	1		1	2			1		1	3					1	1	2	2 1	l	5	2		3		1	1		1	1			1 1	1 2			3				3	2				2	1 1	ί		2	,
Cuscuta californica var. papillosa	1			1																																																	
Cuscuta campestris [C. pentagona]	14																								2											8			1				1				1			1		Τ	
Cuscuta denticulata	4																						3																				1										
Cuscuta indecora var. indecora	1																						1																													Τ	
Cuscuta occidentalis	2				1																															1																	
Cuscuta pacifica var. pacifica	8																						8																														
Cuscuta salina	5																						1													4																	
Cuscuta subinclusa	14					2			2				1								4	2	1			3								1						1									1				
Cycloloma atriplicifolium*	1																																			1																	
Cyclospermum leptophyllum*	2																						2																													Τ	
Cylindropuntia acanthocarpa var. acanthocarpa	1	1																																																			
Cylindropuntia californica var. californica	1																																			1														T			
Cylindropuntia californica var. parkeri	4											1													1										1													1					
Cylindropuntia echinocarpa	4																																										4									Τ	
Cylindropuntia prolifera	2																						2																													Τ	
Cynara cardunculus ssp. cardunculus*	3																			l																1													1	i			
Cynodon dactylon var. dactylon*	21				1	1			1				1				2			l	1	l	4			1					1				1	2			2								1				1		
Cynosurus echinatus*	1																																		1																	Τ	
Cyperus eragrostis	9						1						2										1													1	2		1													1	
Cyperus erythrorhizos	1																																			1																	
Cyperus esculentus var. leptostachyus	2																						2																													Τ	
Cyperus involuratus*	1																																			1																	
Cyperus laevigatus	2																																											1								1	
Cyperus niger	1																																										1							T	T	T	

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Species	Total	AV	ARC	AM	RM	BC	CV	DSR	DLR	FM	GH	HV	LM	LV	Plm	Pcl	SI	Sm	MintC	M	MP	NR	OH	OP	DM	P.M.	PV PVC	PMK	ΓΓ	PorR	RM	KKM	RRR	RV	SadM	SFC	SGabM	SGM	SCR	SPC	SPR	SSM	SawM	SP	SPV	SolC	SM	DIM	TehM	I LIM	Pum	Pcu	Su	VH	WSM	WP	WPR
Cyperus odoratus	1		T		T				T				ľ		1		T	T		1		T		T			T		Ī					1					1					T	T	Т	T	Τ	Т	T	Τ						
Cyperus parishii	1																													1																1											
Cyperus rotundus*	1																																						1																		
Cyperus strigosus	1																																						1																		
Cystopteris fragilis	14	ŀ		2						1			2								1	2						1									3						2														
Cytisus scoparius*	1																																				1								Τ							Τ					
Cytisus striatus*	1																																												Τ		1	i				Τ					
Dactylis glomerata*	3																					1															2																				
Danthonia unispicata	1																																					1																			
Datisca glomerata	51		2					1	2					2			8	4				6	1						1			1				1	3		1	2			3			2					1	4	2		3		1
Datura stramonium*	2																							2	2																																
Datura wrightii	62	2 2			2	1	2	1				1	1		4	1	1	1				1		4	L 1	1	1	1		2	2		3			1	2		4	1		5	1	1	1	2	3	3	1			Τ		1	6		1
Daucus carota*	1					1																																																			
Daucus pusillus	19)					2	1	1										1			1						1		1	1					3				1				2			2	2	1	1					1		
Deinandra fasciculata	39)					1												1			4		2	2						2		1		1	2			1	2	1	3		4			5	5			1			3	2		3
Deinandra kelloggii	2																													1									1						Τ							Τ					
Deinandra minthornii	3																																									3															
Deinandra pallida	1																																													1			1								
Deinandra paniculata	2															1																				1										1											
Delphinium cardinale	27	,	1			1		2	2								1					9							1					1			1			2				1					1	1							4
Delphinium gracilentum	6									1				1							1																						1						1	1			1				
Delphinium gypsophilum ssp. gypsophilum	2													2																																											
Delphinium hansenii ssp. kernense	2																													2																											
Delphinium hesperium ssp. hesperium	2	1			1								Ī	1	1		1	1			1			1				1													1					T	1	1	T	T		T	T				
Delphinium parishii ssp. pallidum	38	3	1		1				1	2			Ī	1	1		1	9			2		3					4		1				5				1			1			T		T	1	ι	T	T		T	6			T	1
Delphinium parishii ssp. parishii	36	5						1	1	1			2	1				2			4	1	1							3						1	1	1						13	3	1		T	T	T	T	T	1				1



																									B	ior	eg	gioı	ıs																							
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GН	HV	LM	LV	Plm	Pcl	SI	Sm	MintC	MP	ND	NK OH	OP	PM	ΡV	PMR	ΡP	PorR	RM	RRM	RRR	RV	SFC	SGabM	SGM	SCR	SPC	SPR	SSM	SawM	SP	SPV	SolC	SM	TTM	I I M	Pcu	Su Su	ΗΛ	MSM	WP	WPR
Delphinium parryi ssp. maritimum	2																																				1							1								
Delphinium parryi ssp. parryi	42					1	5						1		1				3	1	1 2	2				1			4		1		6			1	3		3		3			2		1	l	2		1		
Delphinium parryi ssp. purpureum	28			1		1								2				1		8	3 1	1 2				3		1				1			1								1				1	. 2				2
Delphinium patens ssp. hepaticoideum	16		1														1	2			~	3										1		2				1						2	1	1						2
Delphinium patens ssp. montanum	22									2				2						9)					2		1						3						2	1											
Delphinium umbraculorum	2																									1																			1	1						
Dendromecon rigida ssp. rigida	74					2		1	2				2		1			5		1	1	8		1		1	1	6	2		1	1 1	3	1		1				10	2		2	1	2	2		1		2	1	2
Deschampsia cespitosa ssp. cespitosa	3																			3	3																															
Deschampsia danthanoides	11									1				1						1	l							2													4							1				1
Deschampsia elongata	1																																		1																	
Descurainia adenophora	1																			1	l																															
Descurainia californica	1																																		1																	
Descurainia pinnata	17				1			1		1	1		2										2			1		3				2			1					1			1									
Descurainia pinnata ssp. brachycarpa	4													1									1			1		1																								
Descurainia pinnata ssp. glabra	19				2	1					1		2													1		2			1			2	1								2				1					3
Descurainia pinnata ssp. halictorum	4									1																1																						2				
Descurainia pinnata ssp. intermedia	1																															1																				
Descurainia pinnata ssp. menziesii	10																	2		2	2					1															1		2	1				1				
Descurainia sophia*	20												1												3	2		1	1					2					1	1							7	1				
Dicentra pauciflora	1																									1																										
Dichondra occidentalis	1																						1																													
Dieteria canescens var. canescens	8									2										ϵ	5																															
Dieteria canescens var. leucanthemifolia	1																			1	l																															
Dieteria canescens var. shastensis	9																			9)																									Ι						
Dietes iridioides*	1																																			1																
Digitaria sanguinalis*	9															Ī		J		6			1													1			1											\Box		



																								B	ior	egi	ion	s																						
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLA	GH	HV	LM	LV	Plm	Pcl	SI	Sm	MintC	W	MP	NK OH	a do	PM	ΡV	PMR	ΡP	PorR	RM PDM	DDD	KKK DV	K V SadM	SFC	SGabM	SGM	SCR	SPC	SPR	SSM	SawM	SP	SolC	SM	TehM	TTM	Pum	Pcu	Su	VH	WSM	WPR
Dimorphotheca ecklonis*	1																					1																												
Dimorphotheca fruticosa*	1																					1																												
Dimorphotheca sinuata*	3						1																								1				1															
Diplacus australis	1																															1																		
Diplacus bigelovii var. bigelovii	9								1																		2														1			4		1				
Diplacus bolanderi	2																													1	1																1			
Diplacus brevipes	46		1				2		2						1	1	5			1	3 1				1			2		2	2		2			1		2	4	7				1			4		1 1	1
Diplacus calycinus	22								1 1						1	1					1 1				2										1		2	4				3			1			1		2
Diplacus congdonii	1																				1																													
Diplacus constrictus	34			2						3		2								6	1						7			1	1	1		3					2							1	1	:	2	2
Diplacus constrictus X D. johnstonii	10		2	1								1	1																	1	1																2			2
Diplacus fremontii var. fremontii	4																													1	1		1								2									
Diplacus johnstonii	2													2																																				
Diplacus longiflorus	135		2				2	4	1					11	3	6	2	1	1	9	Э 2	2	2		5	1		2 1	1			1	5		2	7	1	7 1	15	2 1	1	6		3	4		3	2	6 2	2 9
Diplacus rattanii	1								l																																									
Diplacus rutilus	1																																					1												
Dipterostemon capitatus ssp. capitatus	116					1	2	7	3	1		2	2	8		2	6	4		:	8 1	1	1		1	2	4	1	1	1 1	1	1	2	1		4	1	5	3	4	6	1		1	1	1	3	2 \$	8 9) 4
Dipterostemon capitatus ssp. pauciflorus	1																																		1															
Distichlis littoralis	10																					9													1															
Distichlis spicata	32				1		1				1	1	2	2		1	1			2		4	1		1		1	3	1	1					2			2				1			1	1			1	1
Dittrichia graveolens*	3																					2													1															
Dodecahema leptoceras	1																																								1									
Dodecatheon alpinum	2																			2																														
Draba cuneifolia var. cuneifolia	3																										2								1															
Draba verna	3											2																						1																
Drosanthemum floribundum*	4																					3									Ι									Τ								1		



																									Bic	ore	gia	ons																							
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	HV	LM	Plm	Pcl	SI	Sm	MintC	M	MP	NR	HO	OP	PM	PV	PD	LT DorD	RM	RRM	RRR	RV	SadM	SFC 52.111	SGADM	SCR	SPC	SPR	SSM	SawM	SP	SPV	SolC	SM	TehM	11M	Pum	rcu s	nc NH	WSM	WP	WPR
Drymocallis glandulosa var. glandulosa	31			3				1	5											10	2				1	1								2					1			1	3		1				1		
Drymocallis glandulosa var. reflexa	9			3																5	1																														
Drymocallis glandulosa var. viscida	3																			2																											1	L			
Drymocallis glandulosa var. wrangelliana	4								1													2																							T						1
Drymocallis lactea var. lactea	15			1					1	1			1							8					1	1	2	2																							
Dryopteris arguta	36		1					1	1							2	1				10					1	l I							4		4			5		1		3		1				1		
Dudleya blochmaniae ssp. blochmaniae	2																						1															1													
Dudleya caespitosa	1																																									1									
Dudleya cymosa ssp. cymosa	18									1			1	1	Į								4					2			1					1			1	2		1							3		
Dudleya cymosa ssp. pumila	14												2 1				1				1													4					1			1				1	2	2			
Dudleya lanceolata	59	1	?		1			1	2					5	5	4	1	1			6		2	1	3 1	1		2						1	2	5		3	1	1			2	1	1 2	2 1	1 2	2 1	2	1	2
Dudleya pulverulenta ssp. pulverulenta	31							1						2	2	3	2				3		1						2	2			1			3			3					:	2				4	1	1
Dudleya saxosa ssp. aloides	1																																	1																	
Dudleya verityi	5																						5																												
Dysphania ambrosioides*	8								1							1							3				1								2																
Dysphania botrys*	4						1																											3																	
Dysphania multifida*	1																																					1													
Eastwoodia elegans	0																			?						?																									
Echinochloa colona*	2								1																													1													
Echinochloa crus-galli var. crus-galli*	10												1										6												3																
Echinochloa crus-pavonis var. crus- pavonis*	2																		1				1																												
Echinodorus berteroi	2															1	1																																		
Eclipta prostrata	8																										6	5							2																
Ehrendorferia chrysantha	54					1		1	4	2	T					1	1	1		2	4				2	2 2	2 1	4					3	3					7	1		1		:	3	5	5 4	ł	1		
Ehrendorferia ochroleuca	2																																		1				1											Π	
Ehrharta calycina*	3																																	1	1			1													



]	Bio	ore	gio	ons																							
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	ΗV	LM	LV	Plm	Pcl	SI	Sm	MintC	M	MP	NR	HO	0P	MA	PMB	pp	PorR	RM	RM	RRR	RV	SadM	SFC	SGabM	SGM	SPC	SPR	WSS	SawM	SP	SPV	SolC	SM	TehM	TTM	Pum	Pcu	Su	HA	WSM	WF
Ehrharta erecta*	2																							2																												
Elatine brachysperma	1																																								1											
Elatine californica	1																																								1											
Elatine chilensis	1																																								1											
Eleocharis acicularis var. acicularis	6			1																	1															. v.	3												1			
Eleocharis bella	1																				1																															
Eleocharis bernardina	3													1							2																															
Eleocharis coloradoensis	2					1															1																															
Eleocharis geniculata	1																																								1											
Eleocharis macrostachya	17									1				1			1								2	2 1	l					1				2	2		1		4							2	1			
Eleocharis montevidensis	5											1														1			1							2	2															
Eleocharis obtusa	1																																								1											
Eleocharis palustris	2																									1															1											
Eleocharis parishii	25						1		1			1	1	1			1	3			3					1 1	l					1				1 2	2						1		1		1	2				2
Eleocharis parvula	1																																															1				
Eleocharis quinqueflora	1																				1																															
Eleocharis radicans	1																																										1									
Eleocharis rostellata	2																																			2	2															
Eleocharis suksdorfiana	2																				2																															
Eleusine coracana ssp. africana*	1																																			1	l															
Eleusine indica*	1																																			1	l															
Elodea canadensis	3																															3																				
Elymus [Taeniatherum] caput-medusae*	8																	1								5	5					1																	1			
Elymus cinereus	2																									1										1																
Elymus condensatus	145				9		2	2	4	1	2	1	1		20		3	15			2	7			1	2 4	ţ	2	3	1	1			3	2	1 5	5 3	1	7	8	3	1	1	7		1	1	3	3	2	3 (5 1
Elymus elymoides var. brevifolius	2																									1	I	1																								



																									B	ior	eg	ioı	ns																								
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	ΗΛ	ΓW	LV	Plm	Pel	N 	MintC	M	MP	NR	HO	OP	PM	ΡV	PMR	PP	PorR	RM	RRM	RRR	RV	SadM	SFC	SGabM	SGM	SPC	SPR	MSS	SawM	SP	VQS	SolC	SM	TehM	TTM	Pum	Pcu	Su	ΗΛ	MSM	WP	WPR
Elymus elymoides var. elymoides	14	2		17	1	1			1	15	4	2	2	4	1		1	l		36	54				1	13		3				1			1	3			1	3			4	1			3	8	1	i		1	
Elymus glaucus ssp. glaucus	58	3		1			1	1	1	2			3	4			3 2	2		2	3	1			1	3								1	4	1 1	3		3	2	1		1				2	8	2				1
Elymus glaucus ssp. jepsonii	5																									1									1								1	2									
Elymus Xgouldii	1									1																																											
Elymus Xhansenii	2												1																																				1				
Elymus hispidus*	9																			1	5								1		1	1																					
Elymus lanceolatus ssp. lanceolatus	1																																																		1		
Elymus multisetus	15	5			2					?	?	?	1	2						1		1						1								1							5						1				
Elymus ponticus*	4												1																1		1				1																		
Elymus repens*	1																																			1																	
Elymus stebbinsii	5								1								1	l		1						1														1													
Elymus trachycaulus ssp. subsecundus	1																			1																																	
Elymus trachycaulus ssp. trachycaulus	9													1						2						1																						5					
Elymus triticoides ssp. triticoides	45	5			1	1	1		2				1	2			4	2		5	3	1	1		4	4	1								1	1	1			2			1			1		8	1				
Elytrigia elongata*	2																																		1	1																	
Elytrigia intermedia ssp. intermedia*	1																				1																																
Emex spinosa*	6																						4													1														1			
Emmenanthe penduliflora var. penduliflora	13	6	1		11		2	5	2	2		1	4	2	3		-	3 1	l	1	3		1	1	2			3	1	2	1	2	1	3	5	1 2	3	1		38	4		8		2	2	1		4		4	2	1
Emmenanthe penduliflora var. rosea	4													2						1																												1		i			
Encelia actoni	44	ļ	1			3		1		6	3	1		1	1			3	3	1				2	3				1		1		1	4	1						2	1	6				1						
Encelia californica	30)	1		1	1	2							1		2	1				2													2		41	1		3				1	5						1			1
Encelia farinosa	6	1					1																						1												2		1										
Enemion occidentale	14	ļ				3														1									2												8									∟⊺			
Ephedra californica	4									1			1																					1									1										
Ephedra nevadensis	27	7 3											1					5	5					3	1			1						1	2						4		6										
Ephedra viridis	76	5		2	3				1	9	11		2	3	3		4	1		4		1		1	2	4					2		Τ		1	2							3				7	8	3	ιT		Τ	



																									Bio	ore	gio	ons	5																						
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	HV	TM	FV	Pim	5	Sm 2	MintC	W	MP	NR	HO	OP	ΡM	PV	PMK	P.F.	RM	RRM	RRR	RV	SadM	SFC	SGabM	SGM	SPC	SPR	SSM	SawM	SP	SPV	SolC	SM	TehM	D	Pum	Su	НЛ	WSM	WP	WPK
Epilobium brachycarpum	24			1						1			2	2			1			3						3	2	2			2			1	1	l										4	Ļ			Τ	_
Epilobium campestre	4			1										1																										2											
Epilobium canum ssp. angustifolium	1																																								1										
Epilobium canum ssp. canum	76		1	1		2	1	2	3				2	1	2 1	4	4 2	2		2	7			1		1		1	1	1				2	1 2	2 2	1	3	4				6	1	1 6	6 1	4		3	1	2
Epilobium canum ssp. latifolium	77			6					2	3			3	2			1			14	3				4	4	2	2							1				8	2				1	1	1 1	4 2		5	1	2
Epilobium ciliatum ssp. ciliatum	42		?	1		1	1		1				1			2	2 1			5	2	1	2			2						1		1	4	5 2		2	3			3			1	1 1	L		1		2
Epilobium ciliatum ssp. glandulosum	5																			2		1														Į									1	1					
Epilobium densiflorum	9			1						2															3																			1		1	L		1		
Epilobium foliosum	6																										1	1 2	2		1				1											1	Į				
Epilobium glaberrinum ssp. glaberrinum	5													2						2						1																									
Epilobium hallianum	2																			2																															
Epilobium minutum	1																														1																				
Epilobium oregonense	1																			1																															
Epilobium torreyi [Bousduvalia stricta]	1									1																																									
Epipactis gigantea	27		1	1									1	1		4	4 2	2		1	3					1				1			2	1		3			2			1			1	1			1		
Equisetum arvense	14													1						4	1					1				1						3										1	1				
Equisetum Xferrissii	2															1																													1	1					
Equisetum hyemale ssp. affine	21							1								1					1		2			1									1	2										1	0		1		
Equisetum laevigatum	22								1					1			1			3	1				1	1			1				2			1			5			1				1	L				1
Equisetum telmateia ssp. braunii	8		1										2				1									1										1											1				
Eragrostis barrelieri*	2																						2																												
Eragrostis cilianensis*	2					2																																													
Eragrostis mexicana ssp. mexicana	5																						5																												
Eragrostis mexicana ssp. virescens	3																						2																			1							\square	Τ	
Eragrostis pectinacea var. miserrima	1																		1																														\square	T	
Eragrostis pectinacea var. pectinacea	2					2						Τ												Τ																									İ		



																								F	lioi	eg	ior	ıs																_						
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLK	FM	6H HV	ATT N	TA	Plm	Pcl	SI	Sm	MintC	W	MP	NR		DM	DV DV	PMR	ΡΡ	PorR	RM	KKM	KKK	KV SadM	SFC	SGabM	SGM	SCR	SPC	SPR	South	Dawin	SPV	SolC	SM	TehM	TTM	Pum	Pcu	Su	HA	WSM	WPR
Eragrostis superba	1													1																																				
Eremalche exilis	1																																1																	
Eremocarya lepida [Cryptantha micrantha var. lepida]	3						1										1				1																													
Eremocarya [Cryptantha] micrantha var. micrantha	15			1													1			1	1											1			2	1					7	/								
Eremogone kingii var. glabrescens	3																																	2												1				
Eremogone macradenia var. arcuifolia	29	1										22	2														3											1	1	1	1									
Eremogone macradenia var. macradenia	10																	2																					(6 1	1									
Eremothera boothii ssp. decorticans	56		1		5	1	2	1	1		1	1	1	5			3			5				1	4		2			1	1 3	1			3			1		1					1		6			1
Eremothera boothii ssp. desertorum	1																																								1									
Eriastrum densifolium ssp. austromontanum	45			1					1	1	3 1	9	3				1			2				1	5	1					1	1	1		1			2			6	i					4			
Eriastrum densifolium ssp. densifolium	9											1					1										1				1	1								1	3	\$								
Eriastrum densifolium ssp. elongatum	50			1				1	1	2	2	2 1	1	?			1	2					1	l	3		1				1	1			4	1		2 6	5	1	4	ł		1		10	1		1	
Eriastrum densifolium ssp. mohavense	5										1	l					3			1																														
Eriastrum eremicum ssp. eremicum	1									?	1	?								1																														
Eriastrum filifolium	7										1	l	1											1	1			1				1								1										
Eriastrum hooveri	2									1			1																																					
Eriastrum pluriflorum ssp. pluriflorum	11		-		1						1	?		1				1		1				7																										
Eriastrum sapphirinum ssp. brevibracteatum	8										1	l																				1	1							1	4	ł								
Eriastrum sapphirinum ssp. dasyanthem	13																	1													1	1				1	:	2 1	1	3	2	1							1	
Eriastrum sapphirinum ssp. sapphirinum	28			1	4									4				1									1	2			1		2					1	(6	5	;								
Eriastrum signatum	48			5					1	6	1 2	2	6							6		1		1	5									5												8	1			
<i>Eriastrum</i> sp. nova	6							1				1																2				1																	1	
Eriastrum sparsiflorum	7					1						1								1								3													1									
Ericameria arborescens	6								1												2												1							1										1
Ericameria cooperi var. cooperi	41	3		1		2					1 3	3												2			5						5						:	5	1	3	1							
Ericameria cooperi X E. linearifolia	6																	4									1						1																	



																									I	Bio	reg	gio	ns																								
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GН	HV	LM	LV	Plm	Pcl	SI	Sm	MintC	W	MP	NR De	HO	PM	DV	PMR	ΡP	PorR	RM	RRM	RRR	RV	SadM	SFC	SGabM	SGM	SUK	ort.	SPK	SawM	CD CD	SP	ATC Solo	SM	TehM	MLL	Pum	Pcu	Su	НЛ	MSM	WP	WPR
Ericameria cuneata var. cuneata	16		1	T	T				1								2	1			1	1					1											T							Т	T	9		1	Τ	Г		1
Ericameria cuneata var. spathulata	5																3	1				1																															
Ericameria ericoides ssp. ericoides	6																						4	Ļ													1		1														
Ericameria linearifolia	128	3			8	1		3	1	7	11	3	1	3					2		2			4	2	2 4		6		1	2			3	1	6					4	5 2	2 1	5	5		1	2	1		3		
Ericameria nauseosa	75			3	13	3		1		6	1		6					5		4	4	1			6	i 8		2			5	1				4				1				1			3	2				2	
Ericameria nauseosa var. bernardina	8			2								1						1			2														?								1	1				1					
Ericameria nauseosa var. ceruminosa	1																																												1								
Ericameria nauseosa var. hololeuca	36	1			1						1	3	2	3			1	1	3	3		1		1	3	2					1			1									<u> </u>	3			1	4					
Ericameria nauseosa var. mohavensis	90			1	1				1	3	1	1	3	2							6	1 1	1		2	8					1					2												50) 4			2	
Ericameria nauseosa var. oreophila	52								1	2		1		1						3	37					1		1			2					1							4	4					1				
Ericameria nauseosa var. speciosa	1																				1																																
Ericameria palmeri var. pachylepis	14											1							2			2		1				1							2				2	2	1	1	1	1						1			
Ericameria parryi var. aspera	8			5						1											2																																
Ericameria pinifolia	37					3		1								1			3			3						4	1				1	5			1		4	6	i 1	1 1	1 1	1									1
Ericameria teretifolia	5	2																																	1						1	1	1	1									
Erigeron foliosus var. foliosus	178		1	22	2 2	1			1	14			2	1	3			11	1	2	23	4 1	1 1	-	1	5		1		1		1		1	3	8	1 (6	1 3	14	4 1	1	1	1		2	1	30) 1	1	5	1	1
Erigeron karvinskianus*	2																			2																																	
Eriodictyon californicum	1									1																																											
Eriodictyon crassifolium var. crassifolium	125	1			1	2	1		2	2	4	3	3		12		3	2	6		1	6		1	4	5	1	2	3	1	1	2			3	1	1	1		13	3 6	6 1	1 5	5		1		3	1		3	14	3
Eriodictyon crassifolium var. nigrescens	197		2	1	5	2	1	6	2	1	1	1	6	1	9	2	4	12	4		2	9 2	2	1	2	6	1	5	8	2	11	1		5	5	4 4	4 4	4	1 3	9) 4	5	-	3		3	5	15	; 3		9	3	6
Eriodictyon traskiae ssp. smithii	2																																													2							
Eriodictyon trichocalyx var. trichocalyx	4								1																	2										1			?	,													
Eriogonum angulosum	41				2					1		1		1					2		1				1	0 1		2	3		1		4	1	1	1			2	2	1.0	3	~ 1	3	1								
Eriogonum arborescens	2																																												2	T		1					
Eriogonum baileyi var. baileyi	45	1						1		1			10	1				2			4				2	2		1			1				2					4	Ļ		4	4		1		7	1				
Eriogonum baileyi var. praebens	3				2																								1																Τ								



																									B	ior	eg	ioi	ns																							
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	HV	LM	LV LV	Plm	rci Ci	N	Sm	MINUC	MP	NR	HO	OP	PM	ΡV	PMR	PP	PorR	RM	RRM	RRR	RV	SadM	SPC	SGM	SCR	SPC	SPR	SSM	SawM	SP	SPV	SolC	SM	TehM	TTM	Pum	Pcu	Su	HA	WSM	WPR
Eriogonum brachyanthum	8									1			1				Ī																	1		2							3									
Eriogonum cinereum	4														3								1																												T	
Eriogonum cithariforme var. agninum	25												1	1				1			1					7	1	2				3			2	:			1				1					2			1	1
Eriogonum cithariforme var. cithariforme	63			1					4	1				6			1	3		6	1	2			2	12	1					2	1		2	1					2		1			2		1	10			1
Eriogonum clavatum	13								1	1				5						4															1						1											
Eriogonum covilleanum	15												1							1						1											3			1								7	1			
Eriogonum crocatum	1																						1																													
Eriogonum davidsonii	37			1					1	1		1	1		1				1	4				1		1		3	1				1	2	2					3	6		2			4		1	1			
Eriogonum deflexum var. baratum	12													5						1															1						5											
Eriogonum elegans	8													1				1								3									2	2												1				
Eriogonum elongatum var. elongatum	105				5	1		3	1	1		2	2		7	4	4			1	5			1	1			1	7	1	2			3 1			3	1	4	9			1	6	1	1	6		2	1 1	2 7	1 2
Eriogonum fasciculatum	157	5	2		19		2	10		3	8		5	1	0		1		1					3	2	5			10	6	8			5	1	4	1			9	1		2				1			2	28 3	3 2
Eriogonum fasciculatum var. fasciculatum	24					1	2		1	?			1				1	1	2		1					1				2	1					1		1			1			1					1		2 3	3
Eriogonum fasciculatum var. foliolosum	236	1	2	1		2		1	2	7	9		7	3	33 3	3 3	3 2	20	2	3	7		1	1	1	7		2	12	1	6	3		2	5	3	6	1	6	9	11		6			3	3	19	7		3 1	2 2
Eriogonum fasciculatum var. polifolium	115	7			1	1	1	6	1	1	2	3	7	2	1		1		2	1	3	1		5	3	3	1	5	2		3	1		2 3	3 1	1				15	4	1	11		1	3	4	2	1		1	1
Eriogonum gracile var. gracile	46	1	1							1			2	1	1			1	2	1					1	1	1	1	4			1	2	4 3	3 1	2			3	1	2	1	3				1		1			2
Eriogonum gracile var. incultum	1																																	1																		
Eriogonum gracillimum	9	1											1												2			2																	3							
Eriogonum heermannii var. heermanni	11			1						1				4						3																												1	1			
Eriogonum hirtiflorum	8																	1				1				1						3																			2	
Eriogonum inerme var. hispidulum	2																															1																			1	
Eriogonum inerme var. imerme	14			1					1	2																4		1				2			1													2				
Eriogonum inflatum	4																																								4											
Eriogonum kennedyi var. alpigenum	9								T											8															1																	\square
Eriogonum kennedyi var. austromontanum	16			1						4				2						5															4																	
Eriogonum kennedyi var. kennedyi	24			3						5			1	1						4						2									5									1		1		1				



				_										_												Bi	ore	egi	on	s						_																	
Species	Total	ΑV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	HV	ΓM	LV	Plm	Pcl	SI	Sm	MintC	M	MP	NR	HO	OP	PM	ΡV	PMR	PP	PorR	RM PDM	KKM	KKK DV	SadM	SFC	SGabM	SGM	SCR	SPC	SPR	SSM	Sawin	SP	SPV	DIC	SM T T T T	TTM	Dum	D _{et1}	Su	ΗΛ	WSM	WP	WPR
Eriogonum maculatum	7				1	l	l														1					Ī	2	Ī	Ī												1	2		Τ					1				
Eriogonum mohavense	8																																	1	1								e	5		Τ							
Eriogonum molestum	10													1							2						1		2											1	1							1	2				
Eriogonum nudum var. nudum	1			1																																								Τ									
Eriogonum nudum var. pauciflorum	135			18	3					12	4		7	2				2			48	2					6		1	1	1					7				4	4						1	. 20	с				
Eriogonum nudum var. pubiflorum	11					1			2	1				3							1	1					1																					1					
Eriogonum nudum var. westonii	18			1											1						4	1					4		1		1	1								4	2							3					
Eriogonum ordii	22				4									1							4																1			1	1	10	1	1									
Eriogonum ovalifolium var. ovalifolium	1																				1																																
Eriogonum parishii	1																																							1	1			Τ									
Eriogonum parvifolium var. parvifolium	20																1							7													7	1		1				7	2					1			
Eriogonum parvifolium var. paynei	3																					?																1						1	1								1
Eriogonum plumatella	2																														1	1											1	1									
Eriogonum pusillum	6													1							?																						4	5									
Eriogonum roseum	47					1						4	10	2					1		1					8	1		3					1		2				4	5	4	1	1		1		1					1
Eriogonum saxatile	18			1																	2						5		1											4	2	3				1	L	1	1				1
Eriogonum spergulinum var. reddingianum	9													1							8																																
Eriogonum spergulinum var. spergulinum	1																				1																				T				T								
Eriogonum thurberi	5												1																					1						1			2	2									
Eriogonum trichopes	2													2																														Τ									
Eriogonum umbellatum var. bahiiforme	5													1							2															2								Τ									
Eriogonum umbellatum var. canifolium	3									1				1																										1	1												
Eriogonum umbellatum var. furcosum	1																				1																							Τ									
Eriogonum umbellatum var. munzii	51			10)					9			7	5							9						1								1	3				2	2							4					
Eriogonum umbellatum var. subaridum	3													1							2																				T												
Eriogonum vimineum	8								1					2				1			2							T				1											1	1									



																									B	Bior	eg	ioi	ıs																								
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	ΗV	LM	LV	Plm	Pcl	SI	Sm	MintC	W	MP	NK	ao	PM	ΡV	PMR	PP	PorR	RM	RRM	RRR	RV	SadM	SFC 52.137	SGADM	SCR	SPC	CDD	MSS	SawM	SP	SPV	SolC	SM	TehM	TTM	Pum	Pcu	Su	HA	WSM	WP	WPK
Eriogonum viridescens	4													1							2				1	1																											
Eriogonum wrightii var. nodosum	1																		1																																		
Eriogonum wrightii var. subscaposum	103			13						4				3						4	53					2						1			4	5 1				2	1					3	1	14					
Eriogonum wrightii var. trachygonum	4																				2							2																									
Eriogonum wrightii var. wrightii	4									1											3																																
Eriophyllum ambiguum var. paleaceum	1																																												1								
Eriophyllum confertiflorum var. confertiflorum	224			1	4	3		9	3			3	10	1	8		2	17	5		3 1	2		1	8	4	2	4	10	3	9	3	1	3 1	1 2	2 3	7	,	4	20	8		8	1	4	2	1		2		14 :	5	3
Eriophyllum confertiflorum var. tanacetiflorum	52									5	1	1	1						1					2		7						1			~	3				12	2							14	1		2	1	
Eriophyllum jepsonii	2																																												2								
Eriophyllum pringlei	12									1																		1						2	1					1			5					1					
Eriophyllum wallacei	11	1																																2									8										
Erodium botrys*	11						1															1	1		2									1		2	1	1			1												
Erodium brachycarpum*	3																	1																1											1								
Erodium cicutarium*	227	5			14	2	2	8	2	8	9	3	6	2	27	1	1	7			1	5 2	2 3	3 1	7	10		3	9		6	2		2	5 1	4	. 3	1	3	15	5 5		4	1	1	1	1	8	2	2	10 1	11	1
Erodium moschatum var. moschatum*	12															1						3	2	2	1									1				1								1	1						1
Eryngium armatum	1															1																																					
Erysimum capitatum var. capitatum	122		1	5	2			1	3	2	2	1	3	1	2			1	1	4	20	1 1	l	2	4	6		4	1	1		1	1	2	1 3	3 1	6	5	8	3	5	2	4	5		2		2	4		1	1	5
Erysimum suffrutescens	1																						1																														
Erythranthe [Mimulus] androsacea	11										1										1					1		3				1			4	ļ																	
Erythranthe [Mimulus] breweri	3			1																	2																																
Erythranthe [Mimulus] cardinalis	34			1					1								3	2			1	3					1		2	1		1			1	1	2	2		10)						2		1		1		
Erythranthe [Mimulus] floribunda	21		1	2													1				2							1	2	2				2	1	2				1			2								1		1
Erythranthe [Mimulus] grandis	1																																												1								
Erythranthe [Mimulus] guttata	93		1	3				1	3	3			2		1		1	1	1		8	1	ι		8	2		2	1	4		1			1 2	2	5	;		17	7 2		1	3	3		1	3	2		8		1
Erythranthe [Mimulus] latidens	3																																								3												
Erythranthe moschata [E. moniliformis]	7																				6					1																											



																									B	ior	egi	ior	IS																							
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	HV	LM	LV	Plm	rcı cı	N	DI C	MINUC	MP	NR	HO	OP	PM	ΡV	PMR	PP	PorR	RM	RKM PDD	DV	SadM	SFC	SGabM	SGM	SCR	SPC	SPR	SSM	SawM	SP	SPV	SolC	SM	TehM	WLL		Pcu	NH	MSM	WP	WPR
Erythranthe [Mimulus] nasuta	1								1																																									Τ		
Erythranthe [Mimulus] palmeri	3																																	3																		
Erythranthe [Mimulus] parishii	6			1		1																																			1	1	1									1
Erythranthe [Mimulus] primuloides	7													1						6																																
Erythranthe [Mimulus] rubella	1																									1																										
Erythranthe [Mimulus] suksdorfii	5									1										2						1					1																					
Erythranthe [Mimulus] tilingii	2													1						1																																
Eschscholzia caespitosa ssp. caespitosa	25								2									1			5	1				1	1													1	2		1			1	(5	1			2
Eschscholzia californica ssp. californica	66				5	2			1			1	3	2				3	3	6	i	1	1	1	4	3		4				1	4	2	1			1	4	2	2		4		1		1	1	1 1	L		1
Eschscholzia hypecoides	1													1																																				Τ		
Eschscholzia lemmonii ssp. kernensis	2													2																																						
Eschscholzia minutiflora	10				1								1	1										1	1			1													1		2				1	1				
Eucalyptus camaldulensis*	7																																	1		2			2				1						1	l		
Eucalyptus globulus*	1																						1																											Τ		
Eucalyptus [Corymbia] maculata*	1																		1																																	
Eucalyptus rudis*	4					2													1																															1		
Eucalyptus sideroxylon*	1																																																	1		
Eucrypta chrysanthemifolia var. chrysanthemifolia	56					2	1	2							3		1	1			4								2			1	2	2		3	4		5	3	4		1			1	1		1	. 8	3	1
Eulobus californicus	93				2	1	2	1	1	1		1			2	-	3	1	1	1	2			2					4	1	l		1	7		1	2		5	32	1		7			1			1 1	6	1	1
Euphorbia lathyris*	1																																																1	l		
Euphorbia lurida [Euphorbia palmeri var. palmeri]	6													4						2																																
Euphorbia peplus*	4																						2																1							1						
Euphorbia spathulata	7																					1								2	2										3								1			
Euphorbia terracina var. terracina*	3																						2																					1								
Euthamia occidentalis	34			1		1			1	1			3				1 3	3			3		1			3					1		1			2						1				8	8 2	2	1			
Extriplex californica	3																						3																			Τ										



]	Bio	ore	gio	ons																							
Species	Total	AV	ABC	AM	BM	BC	cv	DSR	DLIN	LM CT	нv П	ATT I	TV		Pcl	SI	шS	MintC	М	MP	NR	HO	OP	MA	PMB	dd	DorB	RM	RRM	RRR	RV	SadM	SFC	SGabM	SGM	SPC	SPR	WSS	SawM	SP	APV	SolC	SM	TehM	WLL	Pum	Pcu S	ΗΛ	MSM	WP	WPR
Festuca arundinacea*	9																						1	-	5			1					1	1																	
Festuca perennis [Lolium perenne, L. multiflorum]*	16									1		2											3											3		3						1							2		1
Festuca pratensis*	3																								2																	1									
Festuca rubra	1																						1																												
Festuca [Lolium] temulenta*	1																																1									ł									
Festuca trachyphylla*	1																																	1																	
Ficus altissima*	2																						2																												
Ficus carica*	1															1																										ł									
Ficus erecta*	1																						1																												
Ficus microcarpa*	2																						2																												
Ficus rubiginosa*	2																		1				1																												
Ficus thonningii*	1																						1																			ł									
Fimbristylis thermalis	1												1																																						1
Foeniculum vulgare*	18																				1		1			1									4	i		3			1	ł	3		1			1			1
Forestiera pubescens	10					1									1			1						1	2							1								1	2										
Fragaria vesca	1																																										1								
Frangula californica	12													6													1				1				2	2			1								1				
Frangula californica ssp. californica	52			1			1	1	1	1		1	1	3			3			4	4	1			6	5					1			3	2	2		1	2			1					8 1	2	1		
Frangula californica ssp. cuspidata	12			1								3								1							3	3						1					1	1							1				
Frangula californica ssp. tomentella	34		1	2				2	2	1	3 1	l					3			1	1	1			1 4	Ļ	1				1				1	1			1					:	2	1	2 2	1			1
Frankenia salina	8		1																				5												1													1			
Frasera neglecta	13			6																											1				4							1					1				
Fraxinus dipetala	81		1		1	3	2	5 3	3		1	2		4		4	7				5			4	4 1	1		4	1	2			1	2	1	11	1		4			Ш	1		1		1		5	1	2
Fraxinus latifolia	2																																						2												
Fraxinus pennsylvanica*	1																						1																												
Fraxinus uhdei*	2																																1		1																



																							Bi	ore	egi	ons	5																					
Species	Total	AV ARC	AM	BM	BC	CV	DSR	DLR	FM	GH uv	HV T M	LV	Plm	Pcl	SI	Sm	MintC	MP	ND	HO	OP	PM	ΡV	PMR	PP nn	POLK	RRM	RRR	RV	SadM	SFC	SGabM	SGM	SPC	SPR	SSM	SawM	SP	SPV	SolC	DIM TahM	TTM	Pum	Pcu	Su	ΗΛ	WSM	wr WPR
Fraxinus velutina	12			1		1													1	Į	1				1	2					1		1	l			2					Τ			\square		2	
Fremontodendron californicum ssp. californicum	36		6						4		1 2	2	2											6			1					2	2				1	1						6	2			
Fritillaria agrestis	5											1																					3							1	1							
Fritillaria biflora var. biflora	3											1																								1												1
Fritillaria ojaiensis	17																		5	5														5	3							4						
Fritillaria pinetorum	10		2						1			1						4	Ļ					2																								
Funastrum cynanchoides var. hartwegii	1																																							1								
Galium andrewsii ssp. andrewsii	52		1	1			1		2		1 1	l				3		8	3 2	2				5		1		1	1			1	5					1		1		1		10	2			3
Galium andrewsii ssp. intermedium	46		2	1				1	3		4	4 1				2		4	2	2			1	5	(6	1	1			1	1	1				2					3		1	3			
Galium angustifolium ssp. angustifolium	155	2		5	2	2	5	3	2		1 5	5 1	10	2	1	7	4	2	2 5	5 2	1		2	3	-	5 2	2 3	3			6	6		6	1	7	8	1		3 (5	1	4	4	3	1	10	4 4
Galium aparine	41						3		2		1	l	4			1		1			5		2		4	2	1				1	2		3			5	1		1	1	Τ		1	Π		4	1
Galium bifolium	4								1									3	3																													
Galium bolanderi	2								?		1							2	2				1																									
Galium californicum ssp. flaccidum	4								1							1										1	l I													1	1	Τ			\square			
Galium cliftonsmithii	1							1																																								
Galium hallii	16		4							2								2	2 1										2								2					3						
Galium jepsonii	4		4																																													
Galium johnstonii	1																															1										Τ						
Galium nuttallii ssp. nuttallii	7									1			1																		1			1		1						Τ			\square	1		1
Galium porrigens var. porrigens	19										4	2														4	2 1					5						5		1							3	
Galium porrigens var. tenue	2															1																														1		
Galium trifidum var. pacificum	1																																															1
Galium triflorum	2							1											1																													
Gamochaeta pensylvanica*	2																															2																
Garrya elliptica	1																																	1														
Garrya flavescens ssp. flavescens	44		1	2			1		1		1 2	2				2		2	2 7	2			2	10	1	2	2														Ι	2	1	3	2			



																								Bi	ore	gi	ons	5																					
Species	Total	AV	ABU	AM	BM BC		Den	DIR	FM	GH	HV	LM	LV	Plm	Pcl	SI	Sm	MintC	MP	NR	ΗO	OP	PM	PV	PMR	гп	POFK	RM	RRR	RV	SadM	SFC 52.137	SGabM	SCR	SPC	SPR	SSM	SawM	SP	SPV	SM	TehM	TTM	Pum	Pcu	Su	ΗΛ	WSM	wr WPR
Garrya flavescens ssp. pallida	12							1									2		1	1	1				3																		1		1	1			
Garrya veatchii	43			1				6	5								1		1	7					4	1							1	-	6					1	1 3		2	1	1			1	2 5
Gastridium phleoides [G. ventricosum]*	2																																	1													1		
Gayophytum diffusum ssp. parviflorum	45		1	0					5			6	3						5		1				5		1			1			1 1	-				1					1		2	2			
Gayophytum heterozygum	5		4	2															1						2																								
Gayophytum humile	5																		1						1					3																			
Gayophytum oligospermum	2																		1						1																								
Gayophytum racemosum	3																		2														1	-															
Gazania linearis*	4					1	1															2																		1									
Genista monspessulana*	2																													1											1								
Geranium californicum	3								3																																						?		
Geranium carolinianum	2																																								2								
Geranium dissectum*	4					1	1																																		3								
Geranium incanum*	1																	1																															
Geranium molle*	5																																								5								
Geranium rotundifolium*	1								1																																								
Geranium viscosissimum	1								1																																								
Gilia achilleifolia ssp. achilleifolia	24							1						?			1			1						~	2 1				1		5				3		7	1	1		1						
Gilia achilleifolia ssp. multicaulis	14	1	1										1					1									1					1					1			1	1		1		4	1			1
Gilia aliquanta ssp. aliquanta	19	1																	1					1			1						1 1	-				11		2	2								
Gilia aliquanta ssp. breviloba	9																							1		4	2											6											
Gilia angelensis	25				1	2	2 2	2						5				1		1							1 3					2	1	1	1		2									1		1	
Gilia austro-occidentalis	2																1								1																								
Gilia brecciarum ssp. brecciarum	43			1	1		1	1	1	2	1	3	2					Ι	3	1				2	3	9	9						2	2			2	1	1	2	2	4		1					
Gilia brecciarum ssp. neglecta	9									1														1			3						1						2			1							
Gilia cana ssp. cana	1																										1																						



																								B	lioi	reg	ioi	ns																							
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLA	CH	HV	TM	LV	Plm	Pcl	SI	Sm	MintC	W	MP	NK	D do	Md	A	PMR	PP	PorR	RM	RRM	RRR	RV	SadM	SGahM	SGM	SCR	SPC	SPR	SSM	SawM	SP	SPV	Solu	SM	TTM	Dim	PcII	Su	НЛ	WSM	WP	WPR
Gilia capitata ssp. abrotanifolia	77		1			4	2		l			7	1				3	2			4 1	1	3	3	3		9			1		() ()	3 2			2		2		6	1	3	1	1	2	2 1	5		1	1	1
Gilia capitata ssp. capitata	20	1					2					2					3	1						1			1					1	2						1	3		1								1	
Gilia capitata ssp. staminea	1																																										1	l							
Gilia clivorum	5																																						3	1			1								
Gilia diegensis	6																																6																		
Gilia interior	4																			4																															
Gilia jacens	8									1			2							2							1							1												1					
Gilia latiflora ssp. cuyamensis	8											2	3							1					1		1																								
Gilia latiflora ssp. davyi	15				1				l	1	1	2												4			2								1							1	ſ	1							
Gilia latiflora ssp. elongata	1																																										ſ	1							
Gilia latiflora ssp. latiflora	17	1				1						1								1				3			2													4		3	1	l							
Gilia leptantha ssp. pinetorum	11												2							8																										1					
Gilia leptantha ssp. purpusii	1				1																																														
Gilia leptantha ssp. transversa	5	1																															1							1		2									
Gilia lutescens	1																																									1									
Gilia malior	2											1																												1											
Gilia minor	3																																							2						1					
Gilia modocensis	5						1													1					1																	1				1					
Gilia ochroleuca ssp. bizonata	66		1		1					3	3 3	13	3											10)		11		1		2		2	1								4	:	3		11	1				
Gilia ochroleuca ssp. exilis	8			1						1	l		1				1							1									1									1					1				
Gilia ochroleuca ssp. lanosa	12								l								4				1	Į			1						1																4				
Gilia ochroleuca ssp. ochroleuca	4																										1						1	1						1											
Gilia ochroleuca ssp. vivida	3																								1		1																1	1							
Gilia sinuata	7								I											1	Ι						2													1	1	2									
Gilia tenuiflora ssp. tenuiflora	2																			1				1																											
Gilia transmontana	1										1																																								



																									B	io	reg	ioi	ıs																							
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	HV	LM	LV	Plm	Pcl	SI	Sm	MintC	MP	ND	HO	OP	PM	ΡV	PMR	PP	PorR	RM	RRM	RRR	RV	SAUN	SCahM	SGM	SCR	SPC	SPR	SSM	SawM	SP	VdS	SOLC	DIVI	TTM	Pum	Pcu	Su	ΗΛ	WSM	WP	WPR
Gilia tricolor ssp. diffusa	1													1	Ì						ľ														l						Ì					l			Π			
Githopsis diffusa ssp. diffusa	2																															1		1																		
Githopsis diffusa ssp. robusta	1																															1																				
Glebionis coronaria*	2																						2																													
Glechoma hederacea*	1																																			1																
Glycyrrhiza lepidota	23					2				1					2			7										1	1	1			1	1									2			2		2				
Gnaphalium palustre	53				1		1			1			1	1			1			2	2	2				5		3		1	1	1		5	3	6	1			3	2						3	2		3		4
Grayia spinosa	2												1						1																																	
Greenocharis [Cryptantha] circumsissa var. circumsissa	34				3	1				1	1	1	3					3							2			7					1	. 4									5				2					
Grindelia camporum var. bracteosa	2																											?										1					1	1								
Grindelia camporum var. camporum	5																						1					1									1				1		1	1								
Grindelia hirsutula var. hirsutula	6																						3					3																								
Gutierrezia californica	21				3		2					1	2					5											1		2			2							1	1										1
Gutierrezia microcephala	6																		1												1			1								:	3									
Gutierrezia sarothrae	16					2						2	1			1		1						1					1		1	2	1															3				
Hainardia cylindrica*	1																						1																													
Harpogonella palmeri	20						8																						4				1	. 1		3					3											
Hazardia squarrosa	15							2																					1	2			2	2					1	3										4		
Hazardia squarrosa var. squarrosa	6														2																		1				3															
Hazardia squarrosa var. grindelioides	27						2	1	1								2			l	4	Ļ	2					1	3							1	1		2				4	1					1	1		
Hazardia squarrosa var. obtusa	41								4						1		2	1		1	8	3 1				4				1						2	1	1	2	2			1	1		6		1		1		1
Hebe speciosa*	1																						1																													
Hedera canariensis*	1																																			1																
Hedera helix*	2												1																										1													
Hedychium coronarium*	1																						1																										Π	\square	T	
Hedychium garderianum*	1																						1																									Ι				



]	Bio	ore	gi	on	s																							
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	HV	LM	LV	Plm	Pcl	SI	Sm	MintC	М	MP	NR 011	0H	OP	PM	PV	PMIK	rr ,	Pork	RM	DDD	KKK DY	K V SadM	SFC	SGabM	SGM	SCR	SPC	SPR	SSM	Sawin	10	SolC	SM	TehM	TTM	Pum	Pcu	Su	ΗΛ	WSM	WP	WPK
Hedypnois rhagadioloides*	7													l		l	l							6		ľ		Ī				ľ		-	1																		
Helenium bigelovii	11																				10																	1															
Helenium puberulum	15		2			1							1																					1			7			1	l								1				1
Helianthus annuus	18																							2		1			1		3	3			2					1	2 1	1	5							1			
Helianthus californicus	11					1																																				1	0										
Helianthus gracilentus	37				1	2	1	2					1		1														1 1	0				3	3					2	4 3	3									2	3	
Helianthus inexpectatus	1																																				1																
Helianthus petiolaris*	1																																										1	Τ									
Heliotropium curassavicum var. oculatum	28														4	1			1					7	1				3		1	1		1		2	1			2	ι		1 1			Γ					1		_
Helminthotheca echioides*	4																							2													1	1															
Hemizonella minima	10			1					1					1							1						2									3							1										
Heracleum maximum	1												1																																								
Herniaria hirsuta var. cinerea*	8					1	2	1																1																1	2	2											
Hesperevax acaulis var. robustior	2																										1																	1									
Hesperochiron californicus	4													3																						1																	
Hesperochiron pumilus	1													1																																							
Hesperocnide tenella	9														3							2													1		2			1													
Hesperocyparis forbesii	3																																								2	2									1		
Hesperocyparis macrocarpa*	2																							1																										1			
Hesperocyparis nevadensis*	2											1																																							1		
Hesperocyparis stephensonii*	6				1			2																					2											1	l												
Hesperolinon micranthum	1																																								1	l											
Hesperoyucca whipplei ssp. cespitosa	7										2	3					1																										1										
Hesperoyucca whipplei ssp. intermedia	2																																							2				Τ								T	
Hesperoyucca whipplei ssp. whipplei	281	9	1		17	4	3	11		11	19	2	5		11		2	11	1			8			4	5	6		2	9 4	1	3	1 1	4		1	1	8		2 3	7 7	7	1 3	;	2	1	8	4	3		23	15	1
Heterocodon rariflorum	5			1														1														:	3											Τ					\square			T	_



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Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	НΛ	LM	LV	Plm	Pcl	SI	\mathbf{Sm}	MintC	М	MP	NR	0H OB	0P 237	PM	PMR	PP	PorR	RM	RM	RRR	RV	SadM	SFC	SGabM	SGM	SUK	SPC	SCM	SawM	SP	SPV	SolC	SM	TehM	TTM	Pum	Pcu	Su	HA	WSM WP	WPR	VIIN
Heteromeles arbutifolia	105		1	2			1	4	1				3		10		3	1				9				2	1	1	5	6			1	3	1	:	5 1	2	1 5	i 4	1			7		2	1			1	4 4	. 3	3
Heterotheca grandiflora	18						1	1					1										4	4		3			1		1			1	1		1				1										1 1		
Heterotheca sessiliflora ssp. camphorata	2								1																																								1				
Heterotheca sessiliflora ssp. echioides	39				1		1						1	2			1	1					4	4		1 3		1								1		2	4	Ļ					1			13				2	2
Heterotheca sessiliflora ssp. fastigiata	13						1						3				3	2	1					2														1															
Heterotheca sessiliflora ssp. sessiliflora	4						1						1											1													1																
Heterotheca subaxillaris ssp. latifolia	2																									l I																		1									
Heterotheca villosa var. hispida	1																				1																																
Heuchera abramsii	1																					1																															
Heuchera caespitosa	1																															1																					
Heuchera elegans	3														?						1	1										1																					
Hieracium albiflorum	4																				1					2										1																	
Hieracium argutum	1		1																																																		
Hieracium horridum	1																									1																											
Hirschfeldia incana*	179	2			5	2	2	4	3	1	1	1	5		17	2	5	7	1	1		7	1	2	1 2	2 2	1	1	11	1 1	10	3		5	3		6	5	1 5	13	3 4	2	5	5		1	1		1	3 1	10 7	1	i
Hoffmannseggia glauca	1																							1																													
Hoita macrostachya	17												1				2	2				3				1												2	1									1	2			2	2
Hoita orbicularis	2																						1																										1				
Holcus lanatus*	1													1																																							
Holocarpha heermannii	1																									l																											
Holodiscus discolor var. discolor	14			1																	9																							3								1	i
Holodiscus discolor var. microphyllus	8													1							3	1													1												1	1					
Hordeum brachyantherum ssp. brachvantherum	6				1									1										2								1																				1	1
Hordeum brachyantherum ssp. californicum	9													1										1		1						1				1	T	╡	╎		1	ĺ						3	1		T	t	
Hordeum depressum	7																						:	5				2	2	1													1								T	T	
Hordeum intercedens	3						?																	1							?								1										1		?	?	?



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Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH HV	I M	LV	Plm	Pcl	SI	Sm	MintC	М	MP	NR	HO	0P	MA	PMR	PP	DorD	RM	RM	RRR	RV	SadM	SFC 52.335	SGabM	SCR	SPC	SPR	MSS	SawM	SP	VIS	Solu	DIVI TahM	TTM	Pum	Pcu	Su	НЛ	MSM	WP WPR
Hordeum jubatum ssp. jubatum	1																			1																													Τ	
Hordeum marinum ssp. gussoneanum*	8																							1	1									1		2				3			1							
Hordeum murinum ssp. murinum*	7																						1	1	1									3						1		1								
Hordeum murinum ssp. glaucum*	15											4	2	2	2				2				1	2	2		1							3								2								
Hordeum murinum ssp. leporinum*	6						1										1						1											1				1												1
Hordeum vulgare var. trifurcatum*	1																																	1																
Hordeum vulgare var. vulgare *	2																						1											1																
Horkelia cuneata ssp. cuneata	2																																					2												
Horkelia rydbergii	6			1																											1			4	Ļ															
Hornungia procumbens*	8					1		1														,	6																											
Hosackia crassifolia var. crassifolia	16			8						1		4	1								1													1	-							1								
Hosackia oblongifolia var. cuprea	1												1	Į																																				
Hosackia oblongifolia var. oblongifolia	14		2			1						1	l				3											1	1				1			1			1							2				
Hosackia stipularis var. stipularis	5								1												2																							2						
Hulsea heterochroma	16							2	1			4	2								3						1						3	1					1					2						
Hulsea vestita ssp. gabrielensis	9			1						1																								5								2								
Hulsea vestita ssp. parryi	1									1																																								
Hydrocotyle verticillata	2																																		2															
Hyparrhenia hirta*	1																						1																											
Hypericum formosum var. scouleri	22																			12					3	3																				7				
Hypochaeris glabra*	5																						1	1	l									1		1				1										
Imperata brevifolia	1																				1																													
Iris germanica*	1															1																																		
Iris hartwegii ssp. australis	1																			1																														
Iris missouriensis	11									1										10																														
Isocoma menziesii var. menziesii	1										Ι	Ι																						1									Ι							



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Species	Total	AV	ABC	AM	BM	BC	CV	DSR	EM	EM	ни	ΓM	LV	Plm	Pcl	SI	Sm	MintC	MP	an	HO	OP	ΡM	ΡV	PMR	ΡP	PorR	RM	RRM	RRR	K V SadM	SFC	SGabM	SGM	SCR	SPC	SPR	SSM	SawM	SP	SEV	MS	TehM	TTM	Pum	Pcu	Su	ΗΛ	WSM	WP
Isocoma menziesii var. sedoides	1																					1																				Τ								
Isocoma menziesii var. vernonioides	9						1															6						1														Τ								1
Isolepis cernua var. cernua	4											3																		1																				
Iva axillaris ssp. robustior	21				2		1				1	2					10							2											1												2			
Ivesia santolinoides	9			3									1						5																															
Ivesia saxosa	1								1	1																																								
Jacaranda mimosifolia*	1																																		1															
Jaumea carnosa	4																					4																												
Johnstonella [Cryptantha] micromeres	8																			1											1				3									1						2
Juglans californica [var. californica]	62		4			3								4		1				4						1		2				1	5		3	5		9				1()	1	3			3		3
Juglans hindsii [J. californica var. hindsii]*	2											2																																						
Juncus acuminatus	1											1																																						
Juncus acutus ssp. leopoldii	24			1			4							1		1	2					8							1	2					2	1													1	
Juncus balticus ssp. ater	8						3					1										2											1												1					
Juncus balticus ssp. balticus	8																2					1		2			1						1										1							
Juncus balticus ssp. vallicola	2																		1								1																							
Juncus bufonius var. bufonius	23						1															6					1						3	2		1				3	3	;							3	
Juncus bufonius var. congestus	4																							1																	2	2	1							
Juncus bufonius var. occidentalis	3																								1															2										
Juncus confusus	1																1																																	
Juncus covillei	1																																	1																
Juncus dubius	2																	1																													1			
Juncus effusus ssp. austrocalifornicus	5																			2					1																			2						
Juncus effusus ssp. pacificus	2																																			2														
Juncus ensifolius var. ensifolius	2																		2																															
Juncus luciensis	1					T	T										Τ											Τ	T					1					Τ	Τ		Ι						Ī		



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Species	Total	ΑV	ABC	AM	BM	BC	CV	DSR	DLK	FM	6H	AH	FM	F.V		2		MintC	W	MP	NR	HO	OP	PM	PV	PMR	PP	PorR	RM DDM	KKM	KKK	K V SodM	SEC	SGahM	SGM	SCR	SPC	SPR	MSS	SawM	SP	SPV	SolC	SM	TehM	TTM	Pum	Pcu	Su VH	MSM	WP	WPR
Juncus macrandrus	8			1						1										4														2								$ \top $								Τ		
Juncus macrophyllus	28			1									1			2	1				1					1		2	1 2	2		2	2	2			3			2								1	2	4		
Juncus mexicanus	55									3	2				1		41	i		11	1				3			2							4				2		1	1						19				
Juncus nevadensis var. nevadensis	5																			1															1													3				
Juncus occidentalis	1																									1																										
Juncus oxymeris	9			1					1								2	2		2					2	1																										
Juncus patens	2												1																									1														
Juncus phaeocephalus var. paniculatus	1													1																																						
Juncus phaeocephalus var. phaeocephalus	1													1																																						
Juncus rugulosus	31			4									2	1		1				2									1 1	1			1	6		4	1			1						4	1	1				
Juncus tenuis	4																															1					1												2			
Juncus textilis	13					1	1										2	2					2		1											1	3			1					1							
Juncus tiehmii	3																									1								1									1							Τ		
Juncus torreyi	8																								3											4						$ \top $			1					Τ		
Juncus xiphioides	20		1		1								1		2		1			1					3				1 2	2						1				1			2					1		2		
Juniperus californica	94	9			11					3	10	2	2				2	2 5	i					3	5			2			1	1	4	2	5						4	2	9		4		6			2		
Juniperus occidentalis	4									1															2	1																$ \top $								Τ		
Keckiella antirrhinoides var. antirrhinoides	2																																2	2																		
Keckiella breviflora var. breviflora	30		1		2								7		1		2	2		2	1					3		1						2						2		$ \top $						2	2	2		
Keckiella breviflora var. glabrisepala	1																			1																																
Keckiella cordifolia	77		1					5	3					,	7	1	1				4			1			1		4				1	2		1	5		6	12	1		2	5		1			1	7	2	3
Keckiella ternata var. septentrionalis	55				4	1		4			1		6				4,	i			5					1		2	1 1	1		3	1	. 1						15			2			1		1				
Keckiella ternata var. ternata	4																				2							1												1												
Kickxia elatine*	1																						1																													
Kochia scoparia*	8																		4				3																								1					
Koeleria macrantha	6					1			T	T	T						1								T	Τ	T														1	1			1		J	2				



																										B	ior	eg	ior	ıs																									
Species	Total	٨V	ABC	AM	AM	BM		DSR	DLR	FM	GH	HV	ΓM	LV	Plm	Pcl	SI	Sm	MintC	М	MP	NR	HO	OP	PM	ΡV	PMR	PP	PorR	RM	RRM	RRR	RV	SadM	SFC	SGabM	SGM SGM	SPC	or C	SEM	Murce	UT Daw M	SP	SPV	Solu	SM	TehM	ITM.	Pum	Pcu	Su	ΗΛ	MSM	WP	WPR
Krascheninnikovia lanata	3	1					T				1	Ī		1	Ī			1								1			1										T	T	T		Т		Τ								Т	Т	
Lactuca sativa*	2																			2																																			
Lactuca serriola*	71	l				2 1	1 1	2		2			2		2		1	5			1			2			1		2	6	1				1	1	1	3	3	2	2 1	4	1	1	1				1	1	1		10	2	
Laënnecia coulteri [Conyza coulteri]	8												1											5					1									l																	
Lagophylla ramosissima ssp. ramosissima	23	3				1							1					1				1				3	2		4	3			2								1	l								3			1		
Lagunaria patersonia*	1																							1																															
Lamarckia aurea*	9						3	3																2						1								2	2				1												
Lamium amplexicaule*	5														1							1		1						1						1																			
Landoltia punctata	1																																					l					Τ												
Larrea tridentata	3	1																																									1		1										
Lastarriaea coriacea	10)					1	l							2																									~ ~ ~	3		1		1				1						1
Lasthenia californica ssp. californica	18	3				2 1	1 1			1	2	2														2			2						2								3												
Lasthenia coronaria	2																																					Į		1	l														
Lasthenia ferrisiae	1																							1																			Τ												
Lasthenia glabrata ssp. coulteri	8																							8																															
Lasthenia gracilis	40)				2 1	1 1	l		2	5		1		4											1			4					1	1	2		1	l			-	5	1 (5		2								
Lasthenia microglossa	2																												2																										
Lathyrus latifolius*	1					1																																																	
Lathyrus vestitus ssp. alefeldii	1																1																																						
Lathyrus vestitus ssp. bolanderi	1																				1																																		
Lathyrus vestitus ssp. laetiflorus	10)				1			2								1	1				1																2	2												2				
Lathyrus vestitus ssp. laevicarpus	32	2													4		1	2																				9)	1	1	5	1		4	4				1		1			1
Lathyrus vestitus ssp. vestitus	37	7				1 3	3	1	2					1			1	3				8	2				2		4							3				1	1	l				1					1	1			1
Laurus nobilis*	1																							1																		Ι													
Layia glandulosa ssp. glandulosa	44	ţ				1		2		2	4	4	1		1											9			4						1	2						Ι		9	9		3							1	
Layia glandulosa ssp. lutea	7			ſ									6																						T	T									1					T					



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Species	Total	ΑV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	НΛ	LM	LV	Plm	Pcl	SI	Sm	MintC	W	ND	OH	dD	Md	PV	PMR	PP	PorR	RM	RRM	RRR	RV	SFC	SGabM	SGM	SCR	SPC	SPR	WSS	SawM	SP	SolC	SM	TehM	MTT	Pum	Pcu	Su	Н	WSM	WFR
Layia heterotricha	8				1				l					2			l				1														4				I								1				
Layia pentachaeata ssp. albida	2																																														2				
Layia platyglossa	16	1																								1		3											2			3	2					1	1		2
Lemna minuta	7								1				1	1	1								1													2															
Lemna turionifera	1																																			1															
Lemna valdiviana	3																																			2			1												
Lepechinia calycina	2																																				2														
Lepechinia rossii	9		1														3												4																						1
Lepidium appelianum [Cardaria pubescens]*	18								1									3			1	L				2	2					5									1							3			
Lepidium campestre*	1																															1																			
Lepidium chalepense*	3								1									1																		1															
Lepidium densiflorum	2																								1														1												
Lepidium dictyotum	7																				l				1			4				1																			
Lepidium didymum*	2																						1													1															
Lepidium draba*	9								1											1			3				1									3															
Lepidium fremontii	3																		2																						1										
Lepidium lasiocarpum var. lasiocarpum	7																						5	i												1															1
Lepidium latifolium*	13									1											1	l	1										1			5										4					
Lepidium latipes	1						1																																												
Lepidium nitidum	15		1			1	1								1		1				1	l			1			1								1		2			2		1								1
Lepidium oblongum	3																						3																												
Lepidium pinnatifidum*	5																						5	i																											
Lepidium strictum	2																						1											1																	
Lepidium virginicum var. menziesii	4																									1							1						1							1					
Lepidium virginicum var. robinsonii	1																																		1																
Lepidium virginicum var. virginicum	3							1							1																		1																		



																								I	Bio	reg	gioı	ns																							
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLA	F.M.	6H HV	LM	LV	Plm	Pcl	SI	\mathbf{Sm}	MintC	М	MP	NR	0H OR	UF	DV DV	PMR	PP	PorR	RM	RRM	RRR	RV	SHUM	SGabM	SGM	SCR	SPC	SPR	SSM	SawM	SP	SPV	SM	TehM	TTM	Pum	Pcu	Su	HA	WSM	WFR	
Lepidospartum squamatum	57				2		2	1		7 6	5 2	2		3	1	2	10	1												1	1	1			2	2			1	2	5	5			2		1		2		1
Leptochloa fusca ssp. fascicularis	1																																1																		
Leptochloa fusca ssp. uninervia	11					2																4	4												4			1													
Leptosiphon androsaceus	7																							Į	1		2	1								1								1							
Leptosiphon aureus ssp. aureus	16			2																				1			3	1													ç)									l
Leptosiphon bicolor	4																					2			1																									1	l
Leptosiphon breviculus	3																1										1														1	1									l
Leptosiphon chrysanthus ssp. chrysanthus	20			1			1			3 1	1						2								1		1						2	3							1	1				4					
Leptosiphon ciliatus	12			5		1						2													2												1					1									
Leptosiphon liniflorus	26			1	2						(1)	;	1			1				1				6	2		3							3									1		1					1	
Leptosiphon nudatus	1																																										1								l
Leptosiphon parviflorus	56		1			1			l		2	4		3			3				3			3	4		1	2			5	2	3					1		5	1	1	2				7			1	
Leptosiphon pygmaeus ssp. continentalis	5								l								1										2					1																			
Leptosiphon pygmaeus ssp. pygmaeus	3																										2	1																							
Leptosyne bigelovii	105	1		1	2	1	1		2	1 2	2 2	11	l							2	4	3		2	3 5		13	2		1	1 2	2 1	2					1		3	e	5 1	4				4		1	1	
Leptosyne californica	1		1																																																
Leptosyne calliopsidea	3														1		1																												1						
Leptosyne douglasii	2					1												1																																	
Leptosyne gigantea	5																					4	4																									1			
Lessingia glandulifera var. glandulifera	23																	2							1								1							4	e	5				8			1		
Lessingia glandulifera var. peirsonii	31				2					1	2 2	2 12	2 1											3			4							1					1							3					
Lessingia leptoclada	2												1																					1																	
Lessingia nemaclada	1									1																																									
Lessingia pectinata var. tenuipes	1																																		1																
Lessingia tenuis	65			2						2			4							4			1		4									6												42					
Lewisia nevadensis	1																			1	Τ																			Τ							IT				I



]	Bio	re	gio	ons																							
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLK	FM	6H	HV I M	LV	Plm	Pcl	SI	Sm	MintC	М	MP	NR	HO	OP	PM	PMR	pp	PorR	RM	RRM	RRR	RV	SadM	SFC	SGabM	SGM	SPC	ads	WSS	SawM	SP	SPV	SolC	SM	TehM	TTM	Pum	Pcu	Su	HA	WSM	WPR
Lewisia pygmaea	1																			1																															
Lewisia rediviva ssp. minor	13			2						1			2	2						3					2	2					1				2																
Ligustrum quihoui*	1																						1																												
Lilium humboldtii ssp. ocellatum	29		1													1					5				1				1					1		4			11						2					1	1
Lilium pardalinum ssp. pardalinum	3																			1											1																1				
Limonium californicum	10																						10																												
Limonium perezii*	3																						2															1													
Limonium ramosissimum*	3																						3																												
Limonium sinuatum*	2																						1												1																
Limosella acaulis	1												1																																						
Limosella aquatica	4																																	4	4																
Linanthus bigelovii	4												1											1										1						1											
Linanthus californicus	41			1			1					?	l	6	5						2	1						2	?				1	2	1	2		10) 1			2	1		1	1				3	; 2
Linanthus dianthiflorus	1																																					1													
Linanthus dichotomus ssp. dichotomus	32				1							1 1	1				1			3				4	1		8			1				1 2	2					4		1		2				1			
Linanthus dichotomus ssp. pattersonii	6												1																											3		2									
Linanthus parryae	25				2	1			1		3	1	L											4	3		3							2						3		4		1							
Linanthus pungens ssp. pulchriflorus	14			1									1							6					3																					1	1				1
Linaria dalmatica ssp. dalmatica*	4									1									2					1	l																										
Linaria maroccana*	1																						1																												
Linum lewisii	23			1									1							11					3																						6	1			
Liquidambar styraciflua*	6																		3				3																												
Lithophragma affine	10																1				4													2									1		1			┓			1
Lithophragma bolanderi	21			2						1		1	I	1						1	1	1					4							2	T		1	. 1	2		1										3
Lithophragma cymbalaria	10									1						2					1				3																		2					┓			1
Lithophragma glabrum	1																																																		1



																									Bi	ore	egi	ons	5										_		_										
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	HV	LM	LV	Plm	Pci	0	MintC	M	MP	NR	HO	OP	PM	ΡV	PMR	PP 2	Pork	RRM	RRR	RV	SadM	SFC	SGabM	SGM	SCR	SPC	SPR	SawM	SP	VIS	SolC	SM	TehM	TTM	Pum	Pcu e	nc VH	MSM	WP	WPR
Lithophragma heterophyllum	3																																	3																	
Lithophragma parviflorum var. parviflorum	6																			1						2													3												
Lithraea caustica*	1																						1																												
Lobelia dunnii var. serrata	17								1						1		1				4					1			2								2	1	1							2	1	1			
Lobularia maritima*	4						2																2																												
Loeflingia squarrosa var. squarrosa	14						2																1		2			1	l				1	3		1				1		2									
Loeseliastrum matthewsii	4																																							1		3									
Loeseliastrum schottii	1																								1																										
Logfia depressa	1																	l																																	
Logfia filaginoides	50					1	1						3		1			3 3					1					1 2	2	1				8					5	6	5	13							1		
Logfia gallica*	22							2					1										1					2	2				1	6			1		2	2	2								4		
Lomatium californicum	8									3	2		1								1																								1						
Lomatium caruifolium var. caruifolium	2																																					2	2												
Lomatium dasycarpum ssp. dasycarpum	52					9			2				2					3 1			2				1	5		4 2	2	2			2	1			1	1	L	2	1						ŧ	5		1	5
Lomatium dissectum var. multifidum [L. multifidum]	15			1		1																1			1	3		2							1					4							1	1			
Lomatium lucidum	3																																	3																	
Lomatium macrocarpum	4									2				1																					1																
Lomatium mohavense ssp. mohavense	42			3							1	1		1			2	2		5		2			3			2						1	2					3		7			1		7 1	1			
Lomatium multifidium	1																																		1																
Lomatium nevadense var. parishii	10																											3					1		1					5	i										
Lomatium parvifolium	1																									1																									
Lomatium utriculatum	29				2					1		2	1	3						2	1				2	2		2										1		2	2			4			1	1			3
Lomatium vaginatum	10				2								1							1					3			1										1		1											
Lonicera interrupta	40		1	3	1	2		1				1	3		1	1	1	2	2	2					2	1		3	1	2	1			1					1	3		3			1	1			1		
Lonicera japonica*	1																				1																														
Lonicera subspicata var. denudata	75		2		4	1			2	2	11	1	1	1	2			3		2	5	3		1		6		2			1			3	2	1	2	2	2 4			1			2		5 2	2	1		



																								Bi	ore	egi	ons	5																					
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	FM	GH	ΗV	LM	LV	Plm	Pcl	SI -	Sm	MINUC	MP	NR	HO	OP	PM	PV	PMR	P.F.	POFK	RRM	RRR	RV	SadM	SFC	SGabM	SCR	SPC	SPR	SSM	SawM	SP	SPV	SM	TehM	TTM	Pum	Pcu	Su	VH	WSW	WPR
Lonicera subspicata var. subspicata	7																	1		1					1												1		2							1			
Lotus corniculatus*	11												1						2			4											2	2															
Ludwigia grandiflora ssp. grandiflora*	2					1																												1															
Ludwigia hexapetala*	1																																	1															
Ludwigia peploides ssp. peploides*	6																					3												3															
Lupinus adsurgens var. adsurgens	3								2																1																								
Lupinus adsurgens var. undulatus	2								1										1																														
Lupinus agardhianus	2																						1																										1
Lupinus albicaulis	14								8										2						2								1								1								
Lupinus albifrons var. albifrons	33			1		1		63		1	2	1		1		3		3	2	1		1			1	1	3			1					3		2			1									1
Lupinus albifrons var. austromontanus [L. excubitus var. a.]	57			2	1			1	1	1	2	3	3			1			7					12	3	(5					1							1			2	1		8	1			
Lupinus albifrons var. collinus	1																													1																			
Lupinus albifrons var. johnstonii [L. excubitus var. j.]	5												1						2						1																		1						
Lupinus andersonii	13								2				1						3						2																	Τ			5			Τ	
Lupinus arboreus var. arboreus	8																					6												1															1
Lupinus arbustus	1								1																																								
Lupinus benthamii var. benthamii	27							1																21			1															4							
Lupinus bicolor	101	1			5	1	2	2		1	1	8		3			2	3		1		1	1	7	1	1 3	3	1		2		1	6	1	1		2	2	8	1:	5 1	6	2		2	3		2	2
Lupinus breweri var. breweri	12							1	1				1						4						1								1					1					1		1				
Lupinus breweri var. bryoides	7												1						6																														
Lupinus chamissonis	2																																				1				1								
Lupinus concinnus spp. concinnus	61			1	1			1	1	1		3	2	3			3		1	2	1			1	8	4	4 1	1			1	2	1 1				2	4	2	5	5		1			3	1 J	1	2
Lupinus concinnus spp. optatus	8											4					1								2																					1			
Lupinus concinnus spp. orcutti	3																1								1																					1			
Lupinus elatus	58			10					3				1						33						8													1			1								1
Lupinus excubitus var. excubitus	39	1				2	1		1		1	3	1	1		1	1	1	4					4	2	(5					2			1					3	3		1		1				



																								B	Bio	reg	gio	ns																						
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLK	FM	6H	1 M	TA	Plm	Pcl	SI	Sm	MintC	М	MP	NR		DM	PV	PMR	ΡP	PorR	RM	RRM	RRR	RV SodM	SFC	SGabM	SGM	SCR	SPC	SPR	SawM	CD	or SPV	SolC	SM	TehM	TTM	Pum	Pcu	Su	MSM	WP	WPR
Lupinus excubitus var. hallii	21									1		1	1			2	3			1				1	4													3			1						2			
Lupinus formosus var. formosus	43					1			2			1	2				1			6	2 2	2		1	4		11					1	2					1			1	2				1	1			
Lupinus formosus var. robustus	7																				1				1		2															1					1			1
Lupinus grayi	1												1																																					
Lupinus hirsutissimus	74				1	1			4					1			1	2			4				1		1	1	2	1	1	1	2		2	4	4	4 2	0 1	1	2			2	2		5	6	i 1	1
Lupinus latifolius var. latifolius	15			2												1				6	2						1									2								1						
Lupinus latifolius var. parishii	17											2				1				10					1			1																2						
Lupinus lepidus var. confertus	23			1																5					4									1				1								11				
Lupinus longifolius	20								4								2				1 1	1 1	1	1								1			1		1 4	1				3								
Lupinus luteolus	14								1	1			1							1					2						1			1							Τ					4	2			
Lupinus microcarpus	13				2					1							1							1	2					2																			3	1
Lupinus microcarpus var. densiflorus	46				6	3	4					3	1	1			2	1			1			4	5		2						2	2					1	l		1			1	1	4		1	
Lupinus microcarpus var. horizontalis	22											1	5				2			4				2	2						?															2	2			2
Lupinus microcarpus var. microcarpus	61			1	1	1	1	1		1			3	1		1	2	1		3	1	1		10) 5		4	1		1	1	1		1				1	7	1		1	3			2	4	1		
Lupinus nanus	18					1			1			2					2				3			1			1		1								1	1					1	2					1	
Lupinus paynei	2														1																							1												
Lupinus polyphyllus var. burkei	4									1			1							2																														
Lupinus sparsiflorus ssp. sparsiflorus	81	1				4	3	1	1		1	1 4		1	2		4	5			1		2	2 2	1	1	4	2	1		1 1	4	3			1		5 2	1	0	3	2	1	1	1		1			2
Lupinus succulentus	46					1	2							1		1		1	1		3	2	2			1		1		1		2	2		2	1	1 4	1	2	2	Τ	6					2	2	7	2
Lupinus truncatus	36						2					3		4		1		3			4							1				3	1			3	-	2			3	1		2	1		1	1		1
Lycium andersonii	1	1																																																
Lycium cooperi	10	1																									1														8									
Lysimachia [Anagallis] arvensis*	15											1									3	<u>, , , , , , , , , , , , , , , , , , , </u>	3														1	2				1					1	1	1	2
Lythrum californicum	18				1		1									1	1					Ι		2	1				1						7	1		1								1				
Lythrum hyssopifolia*	3																					1	1												1		1													
Madia elegans ssp. densifolia	2								1				1																																					



																									I	Bio	reg	gio	ns																								
Species	Total	AV	ABC	AM	BM	BC	CV CV	DSR	DLR	FM	GН	HV	LM	LV	Plm	Pcl	SI	Sm	MintC	M	MP	NK OH	aO	DM	DV	PMR	ΡP	PorR	RM	RRM	RRR	RV	SadM	SFC	SGabM	SGM	SCK	SPC	SPR	SSM	Sawin	Dr.	SPV	SolC	SM	TehM	MIT.	Pum	Pcu	Su	MSW	WP	WPR
Madia elegans ssp. elegans	42	2		4	ŀ	l	l		2	3			5	2		Ì	Ì	1	Т	1	9	1	ľ		1	8	l	1								1	ľ	Ī		2	2	T	T		1	2	T		T	Т	Т	Τ	
Madia elegans ssp. vernalis	3																				1					2															T												
Madia elegans ssp. wheeleri	10									2			1	1							1					3						1								1	i												
Madia exigua	5																	1				1 1	1									1																					1
Madia gracilis	41			1					3								3	1				1 3	3			1									3	1	1	4	:	3				,	4	1	1		3	2			6
Madia sativa	4																					1	1				1													1					1								
Maianthemum racemosum [ssp. amplexicaule]	1																				1																																
Maianthemum stellatum	5																				3					1												1															
Malacothamnus davidsonii	4					1			?					?	1						?	?	?			?																							1	1			
Malacothamnus fasciculatus var. fasciculatus	42	2		1			1			1			1	2	9	1					3	2							1					3			2	1	:	8	1	1			1			1				1	2
Malacothamnus fasciculatus var. laxiflorus	3																																	1			1											1				I	
Malacothamnus fasciculatus var. nuttallis	i 2																					1										?																1					
Malacothamnus fremontii	38			1		7	1			3			1	3							3				1			4	3						3	1					2	2	1						2		2	1	
Malacothamnus marrubioides	127	7		1	. 1	3	1			1			2	2	2				1		2			7	1			1	2	1	5		3	1	2						2	4	2 1	16					1			2	
Malacothamnus marrubioides X M. orbiculatus	3																												1		1													Ι							1		
Malacothamnus orbiculatus	43			4	1	2	2	2		3			1	2					2		2							1	6							3				2	2 3	3		2				1	6		1		
Malacothrix californica var. californica	27					1			2			2	1	6											6	2		3																1		3							
Malacothrix clevelandii	21					1		1	1																	2		2	2						3					1			1	5						2			
Malacothrix coulteri	5						2																											1							2	2											
Malacothrix floccifera	20								5												1	2 1	1			4						2																		5			
Malacothrix glabrata	7																		1									1							1								1	1						2			
Malacothrix incana	1																																				1																
Malacothrix phaeocarpa	4																																																	4			
Malacothrix saxatilis	18				1			4									1												4		2			1						1	í.										3	; 1	
Malacothrix saxatilis var. altissima	3																				1					2																											
Malacothrix saxatilis var. commutata	13																	1			1					4								1			1			Τ		Τ			1	T	T	Τ		2			2



		-																					B	ioı	eg	ioı	ıs																						
Species	Total	AV ABC	AM	BM	BC	CV	DSR	DLK	FM	6H UV	L.M	LV	Plm	Pcl	SI	Sm	MintC	M	MP	NR	OP OP	PM	PV	PMR	PP	PorR	RM	RRM	RRR	RV SadM	SFC	SGabM	SGM	SCR	SPC	SPR	SawM	SP	SPV	SolC	SM	TehM	TTM	Pum	Pcu	Su	VH	WP	WPR
Malacothrix saxatilis var. saxatilis	6																					1														2	2	1		1	1								
Malacothrix saxatilis var. tenuifolia	54	1			3		1	2					1		1	2	2			3			2				7				1	1		3	1	2	2 6	i 4			3			2		1	2	2 1	2
Malacothrix similis	1																				1	-																											
Malephora crocea*	3																				3	5																											
Malosma laurina	42							1							3					7														8	6	2 3	3				7		1				3		1
Malus pumila*	1																			1	1																												
Malva [Lavatera] assurgentiflora	3																				2	2												1															
Malva arborea*	3																				3	3																											
Malva neglecta*	1							1																																									
Malva nicaeensis*	2																				2	2																											
Malva parviflora*	32				1	1		1					2	1						1	5	i										1		4	1	1 2	2	1		1	4						3	1	1
Malva pseudolavatera*	2																	1			1	-																											
Malva sylvestris*	3																				3	3																											
Malvella leprosa	6			1								1									2	2				1							1																
Marah fabacea	40			1						? 1	?		6		1	11							1	2	2	5			1						3										2	1	1 1	1 2	
Marah horrida	17						1			1	1				1											11											1					1							
Marah macrocarpa	53			1		2	11				2						1					1				3				1		5		2	3	2	2 1	2 1		2		1					1	1	1
Marrubium vulgare*	51			1			1	2			1		2		1	3			1	7	1	-	1	2					1	2		2		3	2	4	1	1			7		1	2			1	1	1
Marsilea vestita ssp. vestita	1				1																																												
Matricaria discoidea	20			2			1				1		1								3	3					1					4			1			3				2					1	1	
Matricaria occidentalis	1							1																																									
Matthiola incana*	1																				1	-																											
Meconella denticulata	5	1											1							1														1		1	1												\Box
Medicago lupulina*	11					1					3							2			1														1		2	:			Γ							Τ	1
Medicago minima*	3							1					2																																				\square
Medicago polymorpha*	42					2					1		4			1				4	4	Ļ					1							1	2	1 1	1	3			6		1	1			1 2	4 3	1



																								B	ior	egi	ion	IS																						
Species	Total	AV	ABC	AM	BM		LV Pcb	DSK	FM	CH CH	HV	TM	LV	Plm	Pcl	SI	Sm	MintC	W	MP	NR	an o	PM	ΡV	PMR	ЪР	PorR	RM	RRM	RRR	RV	SFC	SGabM	SGM	SCR	SPC	SPR	SSM	SawM	SP	VdS	SOLC	DIM TehM	TTM	Pum	Pcu	Su	НΛ	MSM	wr WPR
Medicago sativa ssp. sativa*	8																		5			2	:																				Τ			1				
Melaleuca rugulosa*	1																					1																												
Melaleuca viminalis*	1																					1																												
Melia azedarach*	2				1	1	1																																											
Melica californica var. californica	2																														2																			Π
Melica frutescens	2																								1																		Τ				1			
Melica imperfecta	145	2			2 2	2 3	3	6			1	3		5		3	14	1			4		1	2	1		5	1	1	4	1	1	4	1		14			21	7	2	2			5	8	2	1	8	5 1
Melica stricta var. stricta	9			1					2	2		1								2																			1			1	Τ	1						
Melicytus ramiflorus*	1																					1																												
Melilotus albus*	45				1	1	1		2	2		2		1		1	4				1	6	5				1	1	3				1			1			4				Τ		12	2			3	
Melilotus indicus*	52				1	l						1		3		3	6					7		4					2	1		1	1					1	1	1			Τ					2	11	5
Melilotus officinalis*	6																											6																						
Mentha aquatica*	2				2	2																																					Τ							
Mentha arvensis*	1																														1	l											Τ							
Mentha canadensis	6																											3			1	l										1				1				
Mentha Xpiperita*	1				1	l																																												Π
Mentha Xsmithiana*	1																																										Τ					1		
Mentha spicata var. spicata*	3															1						1													1															
Mentha Xvillosa*	2											2																															Τ							
Mentzelia affinis	8				1 1	l						1									2	2		1			1						1										Τ							
Mentzelia albicaulis	20				4			2	1	1		1	1											1	1		3																1			1	3			Π
Mentzelia congesta var. congesta	24			2				1	9	3		1								6	1	l			5		1						1	1					1	1			Τ							
Mentzelia congesta var. davidsoniana	2																			1					1																									
Mentzelia dispersa	42			1					1	1			1				1			3	4	Ļ			9	1	4				2		1	1					3	1				1		6				1
Mentzelia gracilenta	11									1	1									1	1	Į	1		2							2	!							1							1			\square
Mentzelia laevicaulis	18	Τ						2								2	1			Τ	1				2			1			2	3				2						1					1	T		


																								B	ioi	reg	ioi	ns																						
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	FM	CH CH	HV	TM	LV	Plm	Pcl	SI	Sm	MintC	W	MF	NR		Md	PV	PMR	PP	PorR	RM	RRM	RRR	RV SodM	SFC	SGabM	SGM	SCR	SPC	SPR	SawM	CD	TC TC	SolC	SM	TehM	TTM	Pum	Pcu	Su	ΗΛ	MSM	WF
Mentzelia micrantha	49						2	2 4				1									3 2	2			1	2		3	1	1		3	2		3		1	2	6	5				1			4		1	4
Mentzelia montana ssp. montana	26							2	3	1			1							5	2	2			5								1						1	l	2			1		1	ł			1
Mentzelia nitens	1																																								1									
Mentzelia obscura	1																																					1												
Mentzelia pectinata	9								1	1			1				2				1	l			1																						2			
Mentzelia ravenii	6										1																						5																	
Mentzelia veatchiana	65			1	2			1	2	4	1	5	4				2			1	4	Ļ		6	2		5			1		2	3	2		2	1	1 2	1	l	4		2	1	1		3			
Mesembryanthemum crystallinum*	4																					4	Ļ																											
Mesembryanthemum nodiflorum*	9																					9)																								1			
Micranthes californica	6															1					4												1														1			
Micropus californicus var. californicus	6						1																					3				1	1														1			
Microseris douglasii ssp. douglasii	9						1															1					4										1						2				1			
Microseris douglasii ssp. tenella	1																																				1										1			
Microseris elegans	1																				1																										1			
Microseris sylvatica	3																										1																2				1			
Microsteris [Phlox] gracilis	37			1					2			5	5							4				1	2		5											3 3	1	l		2	1	1		1	ł			
Mimetanthe pilosa	41					1		1												1	4 1	Į			6		2	1	3		1	1		4		1		6			3					3	ł		2	
Mirabilis jalapa var. jalapa*	1																					1	-																											
Mirabilis laevis var. crassifolia	62	1	2			1	1		5	2	1			9	1	1		3			6		2				3					4				1	1 2	2	5	5	2	1		1	1			1	1	1 3
Mirabilis laevis var. villosa	6	2								1																	1												1	l	1									
Mirabilis multiflora var. pubescens	8				1							2												3			1																1				1			
Modiola caroliniana*	1																																								1						1			
Monardella australis ssp. australis	2								1											1																											1			
Monardella australis ssp. cinerea	1																																1																	
Monardella australis ssp. occidentalis	1																								1																									
Monardella breweri ssp. breweri	25			1					1								1			2					4						1															14	1			



																									Bi	ior	egi	ion	s																						
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	НЭ	ΗΛ	ΓM	LV	Plm Del	5	31 3	MintC	M	MP	NR	HO	OP	PM	ΡV	PMR	ΡΡ	PorR	RM RRM	RRR	RV	SadM	SFC	SGabM	SGM	SUK	SPD	WSS	SawM	SP	SPV	SolC	SM	TehM	TTM	Pum	Pcu	DU VH	MSM	WP	WPR
Monardella breweri ssp. lanceolata	42		1	5		2			1	1		1									1	1				9		2			1			2		2 1	1	2	4			1					2	1			1
Monardella candicans	1																	1																																	
Monardella hypoleuca ssp. hypoleuca	2																				2																														
Monardella linoides ssp. linoides	3																			3																															
Monardella linoides ssp. oblonga	83			38						14				1						24						1									4												1				
Monardella linoides ssp. stricta	1																			1																															
Monardella macrantha ssp. macrantha	1																											1						?																	
Monolepis nuttalliana	2													1						1																															
Monolopia lanceolata	12					2		1																	3			2				1								1				2							
Monolopia major	1																											1																							
Montia chamissoi	5																			5																															
Montia fontana	5			2																															3																
Morella californica	1																									1																									
Mucronea californica	6													1																								5													
Mucronea perfoliata	5													1				1								2									1																
Muhlenbergia andina	2																									1																					1				
Muhlenbergia asperifolia	24			1	1		1	2					1	2			2	2		2					1	2			1				2											1		2	2	1			
Muhlenbergia californica	1																			1																															
Muhlenbergia filiformis var. filiformis	4													1						2																											1				
Muhlenbergia microsperma	7																						1										1		2							1					2				
Muhlenbergia richardsonis	1																			1																															
Muhlenbergia rigens	38			1					1	2				1			e	5		1	2				1	2		1							4				2					1		2	7	3			1
Muilla maritima	55	1	1	1	2	2		2			1		3				1	2	2	2				1	3			2	3				3	9		4			2	1		5		2					2		
Myoporum laetum*	5																						5																												
Myosurus minimus	5																											3							2																\square
Myosurus minimus ssp. apus	0																											?																							



]	Bio	reş	gio	ons																							
Species	Total	AV	ABC	AM	BM	Dg A	LV Den	DSK	EM	сн	HV	ΓM	LV	Plm	Pcl	SI	\mathbf{Sm}	MintC	М	MP	NR	HO	10	PM	PMR	PP	PorR	RM	RRM	RRR	RV	SadM	SFC 50-1M	SGabM	SCR	SPC	SPR	MSS	SawM	SP	APV 2	SolC	DIM	TTM	Pum	Pcu	Su	HA	WSM	WP	WPR
Myriophyllum aquaticum*	1																						1																									Π			
Myriopteris [Cheilanthes] clevelandii	3							1													2																												i II		
Myriopteris [Cheilanthes] cooperae	1																																		1																
Myriopteris [Cheilanthes] covillei	45			1		1	1	1 3	2	?	1	2	1				3				3			2	1	1		1			1			1 1					1	1		1		3	5	3	4				
Najas guadalupensis ssp. guadalupensis	3											2																							1																
Najas marina	1																																		1																
Nama californica	10									3		1					1										3						, .	2																	
Nama demissa	1					1																																													
Nasturtium officinale*	25					1						1		3		1	1				1		1	(r)	3				4						1	1			4			1	1	1				Π	1		
Navarretia atractyloides	10						~	2													1							1					1	1		1	1	1					1					П	i		
Navarretia capillaris	3																			3																												П	i		
Navarretia fossalis	6																																							6								Π			
Navarretia hamata ssp. hamata	5													1												1																		2	2 1			П	i		
Navarretia hamata ssp. parviloba	1																																					1										П	i		
Navarretia intertexta	3																														3																				
Navarretia mellita	2							1	1																																							Π			
Navarretia mitracarpa	3																																					1		2								П	i		
Navarretia ojaiensis	8																				4														2			1					1					П	i		
Navarretia peninsularis	7			1					1											1														4														П	i		
Navarretia setiloba	9																																							9								П	i		
Nemacaulis denudata var. denudata	3																						2																1									Π			
Nemacladus capillaris	1																											?			1																	П	i		
Nemacladus gracilis	2												1																		1																				
Nemacladus longiflorus var. breviflorus	3																																1	1								2									
Nemacladus orientalis	2																																1	2																	
Nemacladus pinnatifidus	3		Ţ					Ι																															3												



]	Bio	re	gio	ons	5																							
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GН	HV	LM	LV	Plm	Pcl	SI	Sm	MintC	М	MP	NR	HO	0P	PM	PMR	PP	PorR	BM	RM	RRR	RV	SadM	SFC	SGabM	SGM	SCR	SPC	SPR	SSM	CD	or	Solf	SM	TehM	TTM	Pum	Pcu	Su	HA	MSM	WP	WPR
Nemacladus ramosissimus	11						1	2		1																						1		2						1	1	1	2										
Nemacladus secundiflorus var. robbinsii	6											1		1											1	l										1					1	1	1										
Nemacladus sigmoideus	17				1					1	1		2	1							1							1							6	1							2										
Nemophila menziesii var. integrifolia	25	1	1										5									1			1			1					1	1	3					1 2	2 2	2	1	1			1				1		1
Nemophila menziesii var. menziesii	32		1		1		1	2				1										1			2	2		7	,					2	2					1 1	1 1	1	2	2	2	2							1
Nemophila parviflora var. parviflora	1									1																																											
Nemophila parviflora var. quercifolia	2																																							1					1								
Nemophila pedunculata	7														1																	3			1					1	l												1
Nemophila pulchella var. fremontii	5																	1								2																			1		1						
Nemophila spatulata	7																				1														3				1		1	1	1										
Nerium oleander*	5	1																						1											1								1									1	
Nicotiana acuminata var. mulitflora*	2																																				1			1	I												
Nicotiana attenuata	47				2				1	1			1	2				3			4		1		1	1 4		1	1			3			1	2				8	3		3					3	3				2
Nicotiana glauca*	61							1							12		3		3			3		3					1					1	2		9	4		4			1 1	6		1				2		3	1
Nicotiana quadrivalis var. quadrivalis	22					2		1											1		1			1		1			1					4	3	1	1						3		1						1		
Nicotiana sylvestris*	1																									1																											
Nigella damascena*	2																							2																													
Noltea Africana*	1																							1																													
Notholaena californica ssp. californcia	3																																		3																		
Notholithocarpus densiflorus var. densiflorus	4																					2				1	1																										
Nuttallanthus texanus	2																					1		1																													
Oenothera biennis*	1																							1																													
Oenothera californica ssp. avita	1						1																																														
Oenothera californica ssp. californica	37				1		2			1				2		1		3			1				e	5 1		2	2 1					2			1			1	l		1					10	1				
Oenothera deltoides ssp. cognata	1																																												1								
Oenothera deltoides ssp. deltoides	6					1		1																	1	l		1						2																			



																									Bi	or	egi	ion	s																							
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLK	FM	6H	AH NH	LM	Dim	Pel	n IS	Sm 2	MintC	W	MP	NR	HO	OP	ΡM	ΡV	PMR	PP	PorR	RM BBM	DDD	RV	SadM	SFC	SGabM	SGM	SCR	SPC	SPR	SSM	CD	SF	SolC	SM	TehM	TTM	Pum	Pcu	Su	HA	WSM	WPR	
Oenothera elata ssp. hirsutissima	20		1				1		1					1 1	1	2					3		1		1				1				1			1					1	L								3		
Oenothera elata ssp. hookeri	1																																						1	l												
Oenothera primiveris	1					1																																														
Oenothera speciosa*	1																						1																													
Olea europaea*	2																																	1								1										
Oligomeris linifolia	1																																									1										
Opuntia basilaris var. basilaris	52	3			1	1				5 1	11	3						2						2	1			4	1				1	3		2	1				7	1		1		2						
Opuntia basilaris var. brachyclada	24	1			4			12										1							1																	3				2						
Opuntia basilaris var. treleasei	1																								1																											
Opuntia ficus-indica*	1														1																																					
Opuntia littoralis	3					1																															2															
Opuntia oricola	1																						1																													
Opuntia phaeacantha	1			1																																																
Orcuttia californica	6																																							(5											
Osmadenia tenella	1																																						1													
Osmorhiza berteroi	2			1																		1																														
Osmorhiza brachypoda	23		1										1				1				4	1				2		1						3				1	1 1	1 1	1				4						1	
Oxalis albicans ssp. albicans	1															1																																				
Oxalis albicans ssp. pilosa	9																				3																3	2							1							
Oxalis corniculata*	2																						2																													
Oxalis latifolia*	1																						1																													
Oxalis pes-caprae*	1																						1																													
Packera breweri	20					3		1																				12	1															3								
Packera ionophylla	2			2										Ι																											Ι											
Paeonia californica	16		1									,	7																1					4			1													1	i 1	
Panicum capillare ssp. capillare	4																1						2					1																								



																								Bi	ior	egi	ion	s																						
Species	Total	AV	ABC	AM	BM		Den	DSK	FM	GH	HV	LM	LV	Plm	Pcl	SI	Sm	MintC	MP	NR	HO	OP	PM	ΡV	PMR	PP	PorR	RM	KKM	KKK DV	K V SadM	SFC	SGabM	SGM	SCR	SPC	SPR	SSM	SawM	SP	SPV	SM	TehM	TTM	Pum	Pcu	Su	ΗΛ	MSM	wr WPR
Panicum dichotomiflorum ssp. dichotomiflorum*	1																		L																														Τ	
Panicum mileaceum ssp. miliaceum*	1															1																															1		Τ	
Papaver californicum	2																			1																		1									ł			
Papaver heterophyllum	8		1		3	3		1									1																						1	1							ł			
Parapholis incurva*	4																					4																												
Parietaria hespera var. hespera	12							1						1						3												1				2		2									ł		1	1
Parietaria pensylvanica	2													1																															1		1		Τ	
Parthenocissus inserta [P. vitacea]*	6																							5											1												1		Τ	
Paspalum dilatatum*	10							1												1		6										1															1		1	
Paspalum distichum	5											3				1																1															ł			
Paspalum vaginatum*	1																					1																									1		Τ	
Pectocarya anisocarpa	12					1	l											1										1				4								3	2	2					ł			
Pectocarya heterocarpa	2																								1																						1			
Pectocarya linearis ssp. ferocula	29				1	1	l				1			1			3		1					1				2				1	2		4			1		4	4	5					ł			1
Pectocarya penicillata	63				3	1	1	2	2	3	2	3					3		1				2	6	1		6	1			1	2	3		4			1		4	ç	Ð	1				1		1	1
Pectocarya recurvata	9																	1					1										1							4	1	2					ł			
Pectocarya setosa	64			2	8			1 1	1	1	3	4	1				1		4				1		4		3				1 2		3	3						2	ç	Ð	1			4	2		1	1
Pedicularis densiflora	4								1																															3							1		Τ	
Pedicularis semibarbata	23								6				1						1	1					5																						1			
Pediomelum californicum	6								1								1														3			1													1		Τ	
Pediomelum castoreum	1												1																																		ł			
Pellaea andromedifolia	57		2		1	l		1 1						4		2	1			11	L		1		1			1 2	2	2			3			4	1	2	4	1	1			1			2		5	1 2
Pellaea mucronata var. californica	3			2					1																																						\Box	[]		
Pellaea mucronata var. mucronata	35		1						4	1		3		1			3										1	1 '	?	1		1	3	1		3			2		1	l			2	3	i T		1	2
Pennisetum clandestinum*	1																					1																												
Pennisetum setaceum*	8				1											1						2													2	2														



																									Bio	ore	gia	ons																						
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLK	FM	GH 	HV	LM	L V Di	Pel	SI	Sm	MintC	М	MP	NR	HO	OP	PM	PV DVD	PP	PorR	RM	RRM	RRR	RV	SadM	SFC	SGabM	SCR	SPC	SPR	MSS	SawM	SP	SPV	SOLC	TehM	TTM	Pum	Pcu	Su	VH	MSM	wr WPR
Pennisetum villosum*	2																						2																											
Penstemon centranthifolius	116				5	2	3	3	2		4		7	2 1	l		10)		1	4	1			5 (5	5	1	2				5	4 3	3			4	11			8		1		11	3		2	?
Penstemon centranthifolius X P. speciosus	1																									1																								
Penstemon gracilentus	1																			1																														
Penstemon grinnellii var. grinnellii	21												1	1						3	2					1	1						1	6					2			1		2						
Penstemon grinnellii var. scrophularioides	26				1			1	1	1		1	1	1						2	3	1			1	2	2						2						1					4		2				
Penstemon heterophyllus var. australis	22				2	3		1						1	3 1	2											1	1					1	2	1	1				3										
Penstemon heterophyllus var. heterophyllus	50					1		1	4				1	1 1	l	1	2	3		1	2				(5	7				3			2				1	1		1					6	3		1	1
Penstemon incertus	1																																										1							
Penstemon labrosus	70			20						3			4	1						31						3									3				1					1		3				
Penstemon laetus var. laetus	7			1									1	2													1							1	2								1							
Penstemon palmeri var. palmeri	2																																	1								1								
Penstemon rostriflorus	12									1			2	3						3					2	2								1	l															
Penstemon speciosus	17			2						2				1						6					4	5								1	l															
Penstemon spectabilis var. [ssp.] spectabilis	2											?													ź	2																								
Penstemon spectabilis var. [ssp.] subviscosis	1																																									1								
Penstemon Xdubius (P. centranthifolius X P. grinnellii)	1																																	1																
Pentachaeta fragilis	2																									1																					1			
Pentagramma triangularis ssp. triangularis	47		1			1			1					<u>, , , , , , , , , , , , , , , , , , , </u>	3	3	2				11					1		2	1					5		3		1	1	1				1	3		2		2	2
Perideridia californica	1																	1																																
Perideridia gairdneri ssp. gairdneri	3																			3																														
Perideridia parishii ssp. latifolia	5																			5																														
Perideridia pringlei	12									1			1				1										4													4		1								
Peritoma arborea var. angustata	1																																		1															
Peritoma arborea var. arborea	49	1				2		1					4	~	3 2			2						6	5		1			1		1	1		6			3		6		2			1					1
Peritoma arborea var. globosa	15				1							2		1 1	ı		2								1	2				2					1			1												1

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																										Bi	or	egi	ion	S																								
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	HV	LM	LV	Plm	Pcl	SI	Sm	MintC	М	MP	NR	OH	OP	PM	ΡV	PMR	PP	PorR	RM	KKM	RRR	RV	SAUM	SCohM	SGM	SCR	SPC	SPR	MSS	SawM	SP	SPV	SolC	SM	TehM	TTM	Pum	Pcu	Su	ΗΛ	WSM	WP	WPR
Perityle emoryi	1																							1																														
Persicaria amphibia	6																1	1											2				1				1																	
Persicaria hydropiperoides	6																																				6																	
Persicaria lapathifolia	9					1	1											1						1					2				1	l									1											1
Persicaria maculosa [Polygonum persicaria]*	1																							1																														
Persicaria punctata	1						1																																															
Petalonyx thurberi var. thurberi	11	1				1													1											1				2	1								1	2										
Petunia parviflora*	3																							3																														
Phacelia affinis var. affinis	12									1		1		3							1														2	1								1				1			1			
Phacelia austromontana	7			1																	4						1									1																		
Phacelia bicolor	4																																									1		2					1					
Phacelia brachyloba	62					1		4	4				3					6				1	1				3	1	1				4	4	5 4		2	1			8			3						8		1		1
Phacelia campanularia var. campanularia	5																		1																1									3										
Phacelia campanularia var. vasiformis	2																																		1									1										
Phacelia cicutaria var. cicutaria	13					1												1				2					1						2							2				3										1
Phacelia cicutaria var. hispida	133		1		1	1	1	15	5 4				1		1	1	1	5	3		1	4	1	1		1	2		1	5	6	1	1		3 4		2	6		5	33	2			1		1			2		11	2	2
Phacelia ciliata var. ciliata	15													6							1	1							1								1	1		1				1		2								
Phacelia congdonii	1									?		?														?																				1								
Phacelia crenulata var. minutiflora	1										1																																											
Phacelia cryptantha	12				1							1																	3						4							1		2										
Phacelia curvipes var. curvipes	20			1						1	2										4		3				7														1									1				
Phacelia davidsonii	40			2						4	1		5					1			10	1	4				4				1										2			1			1			3				
Phacelia distans	86				4		1	2	1	1	1		5		4				4		2			2		3	3		5	1	3			64	3 7		1			4	5	1		11	2						1	7		2
Phacelia douglasii var. douglasii	29					1		1			2	1		3													3		4					2	2							1		8						3				
Phacelia egena	67			8	2				2	4	1	3	2	2	1						6		2			1	8		2					T				1			2	2				2	T		10	5	T	1	T	
Phacelia exilis	9			1						1				1							2															4																		_



																										Bie	ore	gi	ons	5																							
Species	Total	AV	ABC	AM	DM	BM	DC DC	DSD DSD	Neu	DLK	6H	HV	LM	ΓV	Plm	Pcl	SI	Sm	MintC	М	MP	NR	HO	OP	PM	PV	PMR	rr ,	Pork	RM	RRR	RV	SadM	SFC	SGabM	SGM	SCR	SPC	SPR	SSM	SawM	SP	SPV	SolC	SM	TehM	TTM	Pum	Pcu	NU VU	MSM	WP	WPR
Phacelia fremontii	50		T				1	T			3	1		6		1					6				1		1		3		T				3	2						8		13		T	1		1	1	Τ		Π
Phacelia grandiflora	6																					3															1	1														1	
Phacelia grisea	2																															1													1								\Box
Phacelia hastata var. compacta	1																				1																																
Phacelia hastata var. hastata	2																																		1	1																	\Box
Phacelia heterophylla var. virgata	1																				1																																
Phacelia hubbyi	12	2						l		1						1	1												1 1								2			1					2								1
Phacelia humilis var. dudleyi	1																																			1																	
Phacelia imbricata ssp. imbricata	46	5		1	1	1	1			2 2	2		1	1							5	2	3			2	7		3						4					3	1				1		1		2	4	1		
Phacelia imbricata ssp. patula	8				1	1															2						1							1		1					1								1				
Phacelia longipes	34	-	1							5			2		3			2				4	1				1		1	1		2			1			2			3						2		1	2	1		
Phacelia minor	21	1						1	1						1														1				2	1	2		2					2	2	5									
Phacelia mohavensis	6									1											2															1													2				\Box
Phacelia mutabilis	2																				1		1																														
Phacelia parryi	12	2								3									1					1				1					1				1	2				1							-	1			
Phacelia platyloba	2																					1												1																			
Phacelia ramosissima var. austrolittoralis	2																							2																													
Phacelia ramosissima var. latifolia	9									1								1			1			1																		1		1					:	2	1		
Phacelia ramosissima var. ramosissima	46	5					1			1	1				1		1	2			1	2		6			3			1				1	1				1	7	5			4	1			,	4		1		1
Phacelia ramosissima var. subsinuata	1																																												1								
Phacelia rattanii	1																																																	1			Τ
Phacelia tanacetifolia	30		1					1	1	1				1								1	2	2		3	1		4					1			2				1	1		1		2				1 1	1		1
Phacelia vallis-mortae	2							I																						1																							Τ
Phacelia viscida var. albiflora	7																					2															1	1		1					1					1	l		\Box
Phacelia viscida var. viscida	43		2		1	1	1	1	1	1 1			2		2	1	1	2				4									1			2			8	1	1	1					1		1				1	1	6
Phalaris aquatica*	2																			1															1																		



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Species	Total	ΛV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	ΗV	LM	LV	Plm	Pcl	SI	Sm	MintC	M	MD	NK OH	dD	M	ΡV	PMR	ЪР	PorR	RM	RRM	RRR	RV	SadM	SFC	SGabM	SGM	SCK	SPC	SPR	Nice	Dawin	SP	SolC	SM	TehM	TTM	Pum	Pcu	Su	ΗΛ	WSM	WP	WPR
Phalaris canariensis*	4																					1															1							2	2					Π			
Phalaris lemmonii	1																					1																												П			
Phalaris minor*	10																			2			8																											П			
Phalaris paradoxa*	1																						1																											П			
Phelipanche ramosa*	1																						1																											П			
Phleum pratense*	3									1	1																								1															П			
Phlox austromontana	16			7						3										4	1															1				1	1									П			
Phlox caespitosa	1																				l																													П			
Phlox diffusa	6			1						2										-	3																													П			
Phlox hoodii ssp. canescens	3									1										1	2																													П			
Phoenix canariensis*	3					1												1					1																											П			
Pholistoma auritum var. auritum	24														3	3					4	1						1									2	2	-	3 2	2			1		1				1			1
Pholistoma membranaceum	16																																	2					1		4	4	8	3	1					П			
Pholistoma racemosum	1																																																	1			
Phoradendron bolleanum [P. pauciflorum]	39	2			4						2	2	1						1		l			2	3	1		1					1		1							1 2	2 10	0			2			\Box	2		
Phoradendron juniperum	3	1		?						?		?									?					2																											
Phoradendron leucarpum ssp. macrophyllum [P. macrophyllum]	23								1				1			2		6						1	1	1			1			1		1	1		1		1	1			1	1					1			1	
Phoradendron leucarpum ssp. tomentosum [P. villosum]	55			4	2	1				1	4	1	9		1				1		l				4	1		3		1	1		1	5		1				() (3 1	2 1	1		1	3	1			\Box		1	
Phragmites australis	4				1													1													1						1																
Phyla nodiflora var. nodiflora	2																			2																																	
Physalis philadelphica*	2																						2																											Π			
Pickeringia montana var. montana	7								1												(5																												П			
Pilularia americana	2																																			1						1								\Box			
Pinus attenuata	3							1																																											2		
Pinus canariensis*	2						1																1																														
Pinus coulteri	18							3					1		Ī						2	2						1						1	1		1			8	3												

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																										Bi	or	egi	ion	S																									
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	HV	LM	LV	Plm	Pcl	SI	Sm	MintC	М	MP	NR	HO	OP	PM	ΡV	PMR	PP	PorR	RM	KKM	RRR	RV	SadM	SFC 80.115	SGADM	SCP	SPC	CDD	SSM	SawM	SP	DI CIDE	SPV	SUL	DIVL T.chM	TTM	Dum	r um	Pcu	Su	VH	WSM	WP	WPR
Pinus flexilis	20									1											19																												T						
Pinus halepensis*	11						3	1																											1																	1 :	5		
Pinus jeffreyi	192			28						19	9 1			1							78	1	1				10									1	0				1								4	12					
Pinus lambertiana	23			9						1				1							1		1				8																				2	2							
Pinus monophylla	99			2	10					9	24	1		1				1			9				1	4	9		1							ç	Ð					2	2		1	1		4	ł	9	1	1			
Pinus muricata*	2																																		1	1																			
Pinus ponderosa var. pacifica	25			2					1	1			1	1				1			2		1				11									1 1	l																1	1	1
Pinus sabiniana	25				10		1						3		1														6			1									1					1							1		
Pinus torreyana ssp. torreyana*	1																																																			1			
Pinus wallichiana*	1																							1																															
Piperia elongata	2																	2																																					
Piperia michaelii	1																										1																						Τ						
Pistacia atlantica*	1					1																																											Τ						
Pittosporum crassifolium*	1																							1																															
Plagiobothrys acanthocarpus	2																																						1	l		1	l												
Plagiobothrys arizonicus	62			1	2	2	2	2			2	1	9		1											11			10	1 1	1		1		2	1	l					5	5	2	2	5	5	1	L						
Plagiobothrys bracteatus	6																																			4	5												1	1					
Plagiobothrys canescens var. canescens	30						3				1		4						1								1		1	1			4		5	2			2	2 1		1	l			9	3		Τ						
Plagiobothrys canescens var. catalinensis	1											1																																											
Plagiobothrys collinus var. fulvescens	5		1												1	1		1															1																Τ						
Plagiobothrys collinus var. gracilis	3																																3																Τ						
Plagiobothrys hispidulus	1									1																																													
Plagiobothrys humistratus	3																															T	1			2	2																		
Plagiobothrys leptocladus	6																												5							1	l												T						
Plagiobothrys nothofulvus	25										1		1		2	1			1			1				2				1					2			1	2	2					4	ļ⊿	Ļ		T					ľ	2
Plagiobothrys tenellus	1																					1																																	



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Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	ни	LIM	L V Di	Pcl	IS	Sm	MintC	М	MP	NR	θH	OP	PM	PMR	pp	PorR	RM	RRM	RRR	RV	SadM	SFC	SGADM	SCR	SPC	SPR	SM	SawM	SP	SPV	SolC	SM TahM	TTM	Pum	Pcu	Su	ΗΛ	WSM	wr WPR
Plagiobothrys trachycarpus	1			1																																														
Plagiobothrys undulatus	1																																										1							
Plantago arenaria*	1																																		1															
Plantago coronopus*	4																						4																									ł		\square
Plantago erecta	16					1	1																1		2			3		1			1							5		1								
Plantago lanceolata*	9								1												1		3								2			2																
Plantago major*	4												1																1						1												1			
Plantago ovata var. fastigiata	2																																		1			1												
Plantago patagonica	3													1	l																														2					
Platanthera dilatata var. leucostachys [P. leucostachys]	4																			4																														
Platanthera sparsiflora	5																			5																														
Platanus racemosa var. racemosa	161		3	1			2	5	2			1	2	ç)	5	5		1		7			2				9	14	1			5	2	3	13	;	3	32		1	1 (6	2	3	1		2	13	2 3
Platystemon californicus [var. californicus]	29				1	2						1	3 2	2 1	l	1								1	1 1	l	2	1					2		1			2	4	1		1	1	l				i		1
Plecostachys serpyllifolia*	1																																		1															
Plectritis ciliosa ssp. ciliosa	3																				1													1									1					ł		
Plectritis ciliosa ssp. insignis	5					1																												1	l		1			2										
Pluchea odorata	4																																		4															
Pluchea sericea	6						3								1																				2															
Poa annua*	6																				1													1		1			1					2						
Poa bulbosa ssp. bulbosa*	2																								2	2																								
Poa bulbosa ssp. vivapara*	6																								4	ļ								1	L				1											
Poa cusickii ssp. epilis	1													1																																				
Poa howellii	1																								1	l																								
Poa pratensis ssp. pratensis*	11									1			2	1					4	2					1	L																								
Poa secunda ssp. juncifolia	7									1										1					1 1	l											1					4	2						Τ	
Poa secunda ssp. secunda	185	1		24	3	1		1		13	5	5	1	1 5	5		5	1		12	4				7 6	5	12	2 2		2				1 1	6 2	2			5	4		7	1	l		31	1			3 1



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Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	F.M.	ни	TM	LV	Plm	Pcl	SI	Sm	MintC	MB	NP	HO	OP	ΡM	ΡV	PMR	ΡΡ	PorR	RM	DDD	RV	SadM	SFC	SGabM	SGM	SCR	SPC	SPR	SawM	SP	VIS	SolC	SM	TehM	TTM	Pum	Pcu ^c	nc VH	MSM	WP	WPR
Poa wheeleri	1												1																													\square								
Podocarpus macrophyllus*	1																		1																							\Box								
Polemonium micranthum	6								1												1				3																						1			
Polygonum argyrocoleon*	4							1																														2											1	
Polygonum aviculare ssp. aviculare*	7			1	1		2																										1					1		1										
Polygonum aviculare ssp. depressum*	1																										1																							
Polygonum aviculare ssp. neglectum*	1											1																																						
Polygonum douglasii [ssp. douglasii]	1																		1	l																						\Box								
Polygonum polygaloides ssp. kelloggii	1																		1	1																														
Polygonum ramosissimum ssp. ramosissimum	1																																									\square						1		
Polygonum sawatchense ssp. sawatchense	3																		(°)	3																														
Polypodium californicum	30															2			1	8	3												3			7	1 1					1		1	2			1		2
Polypodium hesperium	3																								2												1					\square								
Polypogon interruptus*	1																																									\Box						1		
Polypogon maritimus var. maritimus *	2																													1																		1		
Polypogon monspeliensis*	86					1	2							2		1	6								1		2	3 7	7			1	1	1		1	2	2 22	2		2	\square			9	8 2	2	10		2
Polypogon viridis*	21				1							4		1		1						1										2	2			1		6	;			\Box			1		1			
Polystichum imbricans ssp. curtum	4																			2	2																1										1			
Polystichum imbricans ssp. imbricans	1																																1																	
Populus fremontii ssp. fremontii	112		3		1		3	1			3	2		6	1		12			1			1	1			2	2 6	5 3	3		2			6	2	2	2 13	3 3		8		1		11	5		9	1	1
Populus nigra*	2															1																	1																	
Populus Xparryi	2																1																		1															
Populus trichocarpa	25													1		5	5			1															1	12							\Box							1
Portulaca oleracea*	1						1																																											
Potamogeton foliosus var. foliosus	8																3																		4						1									
Potamogeton nodosus	3															1	2																																	



																										Bio	ore	gi	ons	5																							
Species	Total	۸V	ARC	AM	AM	BM	DC 200	LV Den	Neu	EM	GH	НV	LM	LV	Plm	Pcl	SI	Sm	MintC	М	MP	NR	HO	OP	PM	PV	PMK	FF P	Pork	RM	BBB	RV	SadM	SFC	SGabM	SGM	SCR	SPC	SPR	SSM	SawM	SP	SPV	SolC	WS	TehM	MLT	Pum	Pcu	Su	VH V	WSM	WF
Potamogeton pusillus	1																												1																								
Potentilla biennis	7									1				1							4	1																															
Potentilla gracilis var. elmeri	5													3							1															1																	
Potentilla gracilis var. fastigiata	2																																																2				
Primula clevelandii var. clevelandii	3							1																					1	l				1																			
Primula clevelandii var. gracilis	2																																	1						1													
Prunus domestica*	1																												1																								
Prunus dulcis*	10)																											6													4											
Prunus emarginata	13	3		2	2					1			4																			1				1										-	4						
Prunus fasciculata var. fasciculata	6																											4	4						2																		
Prunus ilicifolia ssp. ilicifolia	92	2	1			1	2		2	2			7		1		3	6	5			10	2		1		2 1	1	2	1	2	2		3	3		1	7		1	7	5		2	1			2		3	,	4 !	1 1
Prunus persica*	2																																									2											
Prunus virginiana var. demissa	30)		1	l	1			2	2 1			5								1		2				4		2 1	L		1		1							3	1			1					3			
Pseudognaphalium beneolens	11								2	2								2									1								1					1				1	1				1	1			
Pseudognaphalium bioletti	10)																																			7	1				1											1
Pseudognaphalium californicum	28	3				1			l				1		2		1					1							2 2	2					4		2	3		1	2											3 !	1 1
Pseudognaphalium canescens	1																	1																																			
Pseudognaphalium leucocephalum	12	2						1	1	Į				1								4					1		1	l							1	1									1						
Pseudognaphalium luteoalbum*	18	3						1					2		2		1									1			1											1	5							1	3				
Pseudognaphalium microcephalum	24	Ļ						1	2						1		1					1				1			1	1				1				10														3	1
Pseudognaphalium ramosissimum	7																			1				2													3														1		
Pseudognaphalium stramineum	4												1											1											1						1												
Pseudognaphalium thermale	9												6								2										1																						
Pseudostellaria jamesiana	1									1														1																									Τ		T	T	\square
Pseudotsuga macrocarpa	29)						1					1					1				2					3		3						1		1	4			7			Τ			2		Τ	1		2	
Psilocarphus brevissimus var. brevissimus	7																																			1						5	Τ						1				



																										Bi	or	egi	ion	S																								
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	HV	LM	LV	Plm	Pcl	SI	Sm	MintC	М	MP	NR	OH	OP	PM	ΡV	PMR	PP	PorR	RM	RRM	RRR	RV	Sauty	SCobM	SCAUM	SCR	SPC	SPR	SSM	SawM	SP	SPV	SolC	SM	TehM	TTM	Pum	Pcu	Su	ΥH	WSM	WP	WPR
Psilocarphus chilensis	1																																			1																		
Psilocarphus tenellus	12								1						1			2				3	1																	1							2							1
Pteridium aquilinum var. pubescens	5																																		1	l					4													
Pterospora andromedea	4																				3																							1										
Pterostegia drymarioides	54							1	2				2					2	2			6					1			2			1	1	1 7	7		3		4	8	3		4			1			2		2		
Pulicaria paludosa*	1																																				1																	
Purshia stansburyana	2																																									2												
Purshia tridentata var. glandulosa	11									1		1		1							4					1								1	l	2	2																	
Purshia tridentata var. tridentata	1																																	1	l																			
Pycnanthemum californicum	3					2													1																																			
Pyrola aphylla	4																				1						3																											
Pyrola asarifolia ssp. asarifolia	4			3																							1																											
Pyrola picta	5																				1						3																						1					
Pyrrocoma racemosa var. sessiliflora	2																									2																												
Quercus agrifolia var. agrifolia	164		3			4	1	6	1			1	2	1	31		3	2				10					2		1	3	3			4	4 2	2	7	14	Ļ	5	19	4		1	8		1	4			4	9	5	3
Quercus Xalvordiana	7				1	2																				1						1										1				1								
Quercus berberidifolia	135	i	1		3	14	-	13	1	1		1	2		2			4	2		1	12	3				6	1	8	6	1	1	1	2	2 3	3	1	1			18	4		2			4		2	2		7	3	2
Quercus berberidifolia X Q. engelmannii	2																																		1	1										1								
Quercus chrysolepis	110)		3	2	1		2	1	4			5	1			2				12	5	1				8		3	1	5			4	2 2	2 2	2 1	2			20	2				1	9	2	2	1		2	5	1
Quercus douglasii	16				4					1			4	1												2			1																	2		1						
Quercus durata var. gabrielensis	1																																		1	1																		
Quercus garryana var. semota [var. breweri]	24					1							3																2										4		3	11												
Quercus Xhowellii	2																																								2													
Quercus john-tuckeri	136	5 2			15	2				4	20) 4	9	1					2			\Box			1	9	7		9			5]	3	1 3	3 1	0				1	5	3	2	1			1	11	5	\square			
Quercus Xjolonensis	2											1																	1																									
Quercus kelloggii	25			10									5								1								1						Ι		1				4	1							2					



														_										Bi	ore	egi	on	S																						
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	EM	CH	HV	ΓM	LV	Plm	Pcl	SI	Sm	MintC	MP	NR	HO	OP	PM	PV	PMR	PP 2	Pork	RIM RRM	RRR	RV	SadM	SFC	SGabM	SGM	SPC	SPE	WSS	SawM	SP	SPV	SolC	SM	TehM	MI I	Pum	rcu Sn	NH	MSM	WP	WPR
Quercus lobata	9						1					2												1									1	1	l		2			П	i								1	
Quercus Xmorehus	7											4							?						1													1		\Box										1
Quercus palmeri	3																																				1									2	1			
Quercus turbinella	2																						1	1																										
Quercus wislizeni var. frutescens	60			1		1			1	3	1	5						1	1	6					4	1	4	1				1	1	2				12	1					1 1	1 7	1 2	1			1
Quercus wislizeni var. wislizeni	35			1	3	1				4	1	5								1							6			3			1	1				6			1		1							
Rafinesquia californica	61		1		2		1	9	1			3		2	1		1	1										2				1	5		4	ŀ		12	3		2		1					5	3	1
Rafinesquia neomexicana	2							1																								1																		
Ranunculus alismifolius var. alismellus	1												1																																					
Ranunculus aquatilis var. diffusus	1																																	1																
Ranunculus californicus var. californicus	11																			1							1					1				1	1					4	1							1
Ranunculus canus var. ludovicianus	1								?	,									?																															1
Ranunculus cymbalaria	17								2	2			2						8															2						П					 	3		Τ		
Ranunculus glaberrimus var. glaberrimus	1																																		1	L														
Ranunculus hebecarpus	14					2										1				2							4	4				1	1	1	l									1						1
Ranunculus muricatus*	1																																				1													
Ranunculus sardous*	1																																		1															
Ranunculus testiculatus*	2												1																					1																
Rhamnus crocea	11					1	1											3												1		2			2	2				1										
Rhamnus ilicifolia	165			1	6	1		12	1	3		8		15		2	9		2	4	1		1	2	3		5	3 6	3	1		2	4	2	2 1	0	4	16	7			1		1 4	4 3	3 1		14	5	1
Rhinotropis cornuta var. fishiae	32		1											1		2				4														1	1	3	4					2		1 2	2					1
Rhus aromatica	100		1		7			5	l		1	4		2			10	2		10	1		2	1	2		3	3 2		1		3	6	2	2			12	3	3	1			1 1	1	4	ł	5		1
Rhus integrifolia	7															3																		1	l		1												1	1
Rhus integrifolia X R. ovata	5											1																1 1					1																	1
Rhus ovata	35		1		1		2					2		3									1				:	5 1	5			1	3				1	2										2	4	1
Ribes amarum var. amarum	5	1														1																							1			1		1						



																								Bi	ore	egi	ons	5																						
Species	Total	AV	ABC	AM	BM RC	DU DU	DSD	DLR	FM	GH	HV	LM	LV	Plm	Pci	SI S	MintC	M	MP	NR	HO	OP	PM	PV	PMR	rr nn	POFK	RM	RRR	RV	SadM	SFC	SGabM	SGM	SPC	SPR	WSS	SawM	SP	SPV	SolC	SM	TehM	D	PcII	Su	ΗΛ	WSM	WP	WPK
Ribes aureum var. aureum	6																1						2										3																	
Ribes aureum var. gracillimum	12				1	1	l										1 3	3									1	L				1	3								1									
Ribes californicum var. californicum	15							2												2						1				1					1		1					2	3	3					:	2
Ribes californicum var. hesperium	15																			4	1				1	1							1		1		1					3	1	1						1
Ribes cereum var. cereum	47												1						44	ļ					2																									
Ribes indecorum	5					1	Į																										1		2	2	1													
Ribes lasianthum	1				1																																													
Ribes malvaceum var. malvaceum	35						4	Ļ								1				7					1		2	2					6		1 2	2 1	. 1					3	2	2			1		1	2
Ribes malvaceum var. viridifolium	6																			2													1			1						2								
Ribes montigenum	2												1						1																															
Ribes nevadense	16			3					2										4						7																									
Ribes quercetorum	46				3				1	9	2	4							1	1				2	1	1	7												1				3	1						
Ribes roezlii var. roezlii	36			2			1	. 1	1			6	1						3		3				2	1	5			1								2	3		1	1	1 1	1						
Ribes speciosum	12							1								1			1	6																						1					1			1
Ribes velutinum	11								3		1		1						6																															
Ricinus communis*	7															1																		4	1 1		1													
Rigiopappus leptocladus	32				1	Į		1	1			1					1			1					2		5		1	5		1		2				2	5										:	3
Robinia neomexicana*	3																																1				2													
Robinia pseudoacacia*	9				3	3	1	-									1																3													1				
Romneya coulteri	8							2									1								1										l											2	1			
Romneya trichocalyx	25							4					1				2			2					5	1				1				4	2								1	1		6				
Rorippa curvisiliqua	5												1						1															1											2					
Rosa californica	64		1		1	Ļ	2	2	2	1		7		2		,	7 1	-		2			1				1	1		2		1	2	2 2	2 1			6		1					12	2 1		3	:	2
Rosa woodsii ssp. gratissima var. gratissima	11								1				3						3						1									1											2			∟		
Rosa woodsii ssp. ultramontana	2																		1						1																									
Rosmarinus officinalis*	1						1																																											



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																										B	Sio	reg	ioı	ns																								
Species	Total	AV	ABC	MA	AM	BM	BC	cv	DSR	DLK	FM	GH	HV TM	LM	LV B	Plm	DI D	N	E C C C C C C C C C C C C C C C C C C C	MINUC	MP	NB	HO	OP	PM	ΡV	PMR	PP	PorR	RM	RRM	RRR	RV	SadM	SFC	SGabM	SGM	SCR	SPC	SFK	South	CD	or	SEV	DIC	TehM	TTM	Pium	Pcu	Su	HA	WSM	WP	WPR
Rubus bifrons [Rubus armeniacus]*	8															1													6																		Τ			Τ	1			
Rubus leucodermis	6																				1						3																				2							
Rubus parviflorus	3			2	2																						1																											
Rubus pensilvanicus*	1									1																																												
Rubus ursinus	66	5	1	1	l		2		1	1			4	5		1		1	1			6	5 1								9					3		5	4	4	2 1	5		1	1		1					3		2
Rumex acetosella*	2																										1									1																		
Rumex californicus	6			4	1						1																													1	1													
Rumex conglomeratus*	6												1	1												2								1						1	1											1		
Rumex crispus*	15	i						1					1	1					1											3	1					2		1		1		1	1		1	L	2							
Rumex dentatus*	2																																					2																
Rumex fueginus var. fueginus	3																																					3																
Rumex fueginus var. ovato-cordatus	1																							1																														
Rumex hymenosepalus	24							1					1							3						1			3					2				4		2	2		1	1 3	3			1	1		1			
Rumex obtusifolius*	5							2																														3			?													
Rumex persicarioides	1														1																																							
Rumex pulcher*	1							1																																														
Rumex salicifolius [var. salicifolius]	17			1	l						1		3	3 2	2				1		1	1							1				1				1	2					1	1				1						
Rumex violascens	1																																					1																
Rupertia physodes	2									1																																			1	L								
Ruppia cirrhosa	2																																1												1	L								
Ruppia maritima	2																																					2																
Sabulina [Minuartia] douglasii	45		1	1	l		2		2	1		2	4	1					3		1	2	2 1			1	3		1				3		2	4				1	1	1	1	100	3			1		1		3		
Sabulina [Minuartia] pusilla	7		1										1	1		1													2				1																					1
Sagina decumbens ssp. occidentalis	2																				1	1																																
Sagina saginoides	3																		Ι		3																																	
Salix exigua var. exigua	40						1	4			2					2	3	1	5	1	2	1				2			1		1	1			1	1			1		1	3	1	1 1	1	1			1	1			1	



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Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLK	F.M.	GH HV	LM	LV	Plm	Pcl	SI	Sm	MintC	М	MP	NR	HO aO	PM	pV	PMR	PP	PorR	RM	KKM	KKK DV	K V SadM	SFC	SGabM	SGM	SCR	SPC	SPR	SawM	CD	SF	SolC	SM	TehM	TTM	Pum	Pcu	Su	ΗΛ	WSM	WF	WER
Salix exigua var. hindsiana	28						2	1							1		1							2					1	1		1							2	2	1			\square	7	8					
Salix gooddingii	15			1	2							1		1										1			2						3		2								1	\square						1	1
Salix laevigata	110			1	3	1	3	1	2		1	1 2	1	8	1	3	6	1		2	1	1 2	2 1	2	2		5	1	5	2	2	3	2	1	6	3	2	2 3	1	1	1	1	2	1	12	5	1	2	5	1	1
Salix lasiandra var. lasiandra	26				1							2					6	1			2			1						1	1		3		8									\square			1				
Salix lasiolepis var. lasiolepis	133			3	2			:	3	1	1	4	2	6		4	6		1	8	4	2	1		4		2	2	2	1 1	1	1		2	4	7	2	2 10	0 3	3		6	2	3	4	18	5	3	1	2	2
Salix melanopsis	1																			1																								\square							
Salsola australis*	3																											1							2									\square							
Salsola gobicola*	1																																					1						\square							_
Salsola paulsenii*	2				1													1																										\square							
Salsola tragus*	35				3	1	2		1		1	l		2	1									1			1	2	1	2		3			1		1	1	2	2	2			\square			1		3 1	2 2	2
Saltugilia australis	22		1			1		2			1	2															2					1	3			1				1	1 6			\square						1	1
Saltugilia latimeri	1																																											1							
Saltugilia splendens ssp. grantii	4											1													1								1								1			\square							
Saltugilia splendens ssp. splendens	25		1									7								1				1			7					2	1					1			2			1						1	1
Salvia apiana var. apiana	108		1			1	1	6	3			1		14		3	5				9	1	1	1	1			1	3	1		2	2		2	6	1 7	7 9) 1	1 1	1 3	5	1	3	2		3		5	1 1	1
Salvia apiana X S. leucophylla	1																																											1							
Salvia azurea var. grandiflora*	1									1																																		\square							
Salvia carduacea	20											3						1						4					1								1	l	1	1	8		1	\square							_
Salvia columbariae	161	2			9	1	1	4	4	3 :	5	9	1	4			11	2		1	7	2	1		2		6	2	1 3	3 2	2 1	3	4	2		3	4	1 22	2 4	4 1	1 5	1	1	3	1	9	5		6 3	2 1	1
Salvia dorrii var. dorrii	10	1												1						1				2			1						1								3			\square							_
Salvia dorrii var. pilosa	25	1			1						4	5		1				3		1				3			4					2									3			\square	1						_
Salvia leucophylla	139		1		2	1	4	1	1					34	3	2	6	1			3		1		1			2	4	5	1	3	3		10	2	1 1	1	5	5		5		1	1			5	6 1	3 4	1
Salvia mellifera	159		1		9	1	1	5 3	3			4		18	2	2	1	3			7			3	1			14	3 (6		5	9		2	4	1 3	8	1	0	1	1		1			1		13 1	4 2	2
Salvia spathacea	6								1												1																					4		\square							
Salvia Xbernardina	1																																				1	l				T		\square							
Sambucus mexicana [S. nigra ssp. caerulea]	133	2		2	6	1	1	5		2 3	3 1	5 ا		16	1	2	3	3		5	2		1	3	3	2	2	3	1	1	1	3	3	1	7	1	7	7 14	4 2	2	3			2		2	1	3	4 :	3 1	1



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Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLK	L M	GH HV	LM	LV	Plm	Pcl	SI	Sm	MintC	MD	NR	ΟH	OP	PM	PV	PMR	P.P.	PorK	RM	RRR	RV	SadM	SFC	SGabM	SGM	SDC	SPD	MIS	SawM	SP	SPV	SolC	SM	TehM	MIT	Tum Tum	rcu Sn	no HA	MSM	WP	WPR
Sanicula arguta	1																																1																	
Sanicula bipinnata	10			1			1																														6												2	
Sanicula bipinnatifida	1																								1																									
Sanicula crassicaulis var. crassicaulis	43								1			2		4		1	1			7	2								2				5			3 1	2					6		2			1		2	1
Sanicula graveolens	2									1		1																																						
Sanicula tuberosa	14					1														1							3 1	l		1		3	2						2								Τ			
Sarcodes sanguinea	8																		5	i					3																									
Saussurea americana	1																																		1															
Schinus molle*	23						1								2	1																		ģ	Ð		4			1	2						2	1		
Schinus terebenthifolius*	1					1																																												
Schismus arabicus*	9							1			2	2			1												1						1					1	1		1									
Schismus barbatus*	30									1		1		1				2 3	3								1	1				1	8						5		6					1				
Schoenoplectus acutus var. occidentalis	8													1			2							1			1					1						1					1							
Schoenoplectus americanus	5											1		1		1		1																			1													
Schoenoplectus californicus	9											1												1										(5								1							
Schoenoplectus pungens var. longispicatus	11											1		1													1	1 1														\Box		3	3 4	4				
Schoenoplectus saximontanus	1																																						1											
Scirpus microcarpus	8					2													3	3					1							1	1																	
Scrophularia californica ssp. californica	5																							1									1		1	l							1				1			
Scrophularia californica ssp. floribunda	1																																										1							
Scutellaria mexicana	11																	1									1												7		2									
Scutellaria siphocampyloides	25			1				-	2	3		4					1			1					2		2			5		1														3	;			
Scutellaria tuberosa	6																		1								1	1									1							1			1			1
Secale cereale*	7				1																			3		1	2																1							
Sedum spathulifolium	4																										1	1																				3		
Selaginella bigelovii	66		1	1		1	1	2	2			1		3		3	1			8	2		1		2		4	4 3					4		1	3	3	7			1			1 2	2	2	:	6		1



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Species	Total	AV	ABC	AM	BM	BC	LV DED	DLR	FM	GН	ΗV	LM	۲۸	Pel	IS	Sm	MintC	М	MP	NR	HO	JO.	PV	PMR	PP	PorR	RM	RRM	RRR	KV SadM	SFC	SGabM	SGM	SCR	SPC	SPK	SawM	SP	SPV	SolC	SM	TehM	MLL	Pum	Pcu	nc HA	MSM	WP	WPR
Selaginella watsonii	1																																				Τ												1
Senecio aphanactis	1																																	1															
Senecio californicus	8					1								3																	1							3											
Senecio cineraria*	1																																	1															
Senecio flaccidus var. douglasii	74	1		1	2		1	1 4	3		2	1		1	1	2			1	2	1 1	1	3	2		3		1	1		2	3			4	1 5	; 8	3		6			1		2 1			2	2
Senecio flaccidus var. monoensis	3																						1				1													1									
Senecio spartioides	2																						1															1											1
Senecio vulgaris*	12													1									1				2								2			3				1				1			1
Sesuvium verrucosum	3																									3																							1
Setaria adhaerens*	1					1																															Τ									Τ			1
Setaria parviflora	3											2						1																															1
Setaria viridis var. viridis*	1																																														1		1
Shepherdia argentea	2																																												2				1
Sherardia arvensis*	2																	2																															1
Sidalcea malviflora ssp. californica	1																																																1
Sidalcea malviflora ssp. malviflora	5																						4								1																		1
Sidalcea neomexicana	6			1									2													3																							
Sidalcea sparsifolia	31			3		1			2				2						4				2	2		4					1		2								1				7	Τ			
Sidotheca caryophylloides	5																							5													Τ									Τ			1
Sidotheca trilobata	10						1	l I				1														4											4												1
Silene antirrhina	10																8			1																		1											1
Silene bernardina	3																		2																								1						1
Silene coniflora [S. multinervia]*	1						1	1																																									
Silene gallica*	2					1	l																												1													\Box	
Silene laciniata ssp. californica	12		1			3						1																			1	1				1													4
Silene laciniata ssp. laciniata	20			T		2							T							1							1		Τ		1	1	T	3	1	5	;				3	Ţ			1	. 1			



																									Bi	or	egi	ion	s																							
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	HV 	LM	L V Dim	Del	IS	Sm	MintC	M	MP	NR	HO	OP	PM	PV	PMR	PP	PorR	RM	KKM	RRR	RV	SadM	SPU	SGM	SCR	SPC	SPR	SSM	SawM	SP	SPV	SolC	WS	TehM	WLL	Tum D	rcu Sn	HA	MSW	WP	WPR
Silene lemmonii	3																															1									2								Τ			
Silene major	1																																	1															Τ			
Silene nuda	1																				1																												Τ			
Silene parishii	1																																	1																		
Silene verecunda	8		1	2						2										1																				1	1											
Silybum marianum*	8																																	2	2	1			2					1					2			
Sisymbrium altissimum*	84	1			15		1	3			1	3	4	1	Į		2	2							1	2		3	2 2	2	1		4	2 4	1					15	2		6				e	5 1		3		
Sisymbrium irio*	14												2			1			1						1									1 2	2					2	1		1					1				1
Sisymbrium officinale*	2																																	1																		1
Sisymbrium orientale*	37				1			1		1			1				1	2		1	1							1			1			e	5		2		2		2		1	1	1				T	9	1	1
Sisyrinchium bellum	11																			3																					6										2	
Solanum americanum	10					2											1								3								1			1	1						1						Τ			
Solanum dimidiatum*	1														1																																					
Solanum douglasii	39		1						1							2			1		4								1	1				1		9	1		7	1				6					3			1
Solanum elaeagnifolium*	2																								1						1																					
Solanum lycopersicum [Lycopersicon esculentum]*	2																												1							1																
Solanum parishii	2	1																																							1											
Solanum umbelliferum	46				4	2				1			5								1				1	1		10	3				1	5 5	5					1	1		2				1	1		1		
Solanum wallacei	1																																				1															
Solanum xanti var. xanti	74		1		1		1	1	2	1		1	1	e	5		3	1		2	6				2	1		8	2			1	1	1 1	1	3	6		4	1	2				1	1	~ ~ ~	3 3	1	1	1	2
Solidago confinis	9												2					1						1	1	1																1	1		1							
Solidago guiradonis	1																			1																																
Solidago spectabilis	1											1																																								
Solidago velutina ssp. californica	41				1	1		4												4								1	2 4	4				1 3	3					14						1	1 3	3		2		
Solidago velutina ssp. sparsiflora	1																				1																											┦				
Soliva sessilis*	1						1																																										T			



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Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLA	L M	HV	TM	LV	Plm	Pcl	SI	Sm	MintC	W	MP	NR	ao	DM	Ad	PMR	PP	PorR	RM	RRM	RRR	RV SadM	SFC	SGabM	SGM	SCR	SPC	SPK	SawM	SP	VQS	SolC	SM	TehM	TTM	Pum	Pcu	Su VH	MSM	WP	WPR
Sonchus asper ssp. asper*	40							2				2					3				2			1	2		1	1	1	1			1		2		2	6	1	1			1			2	1 1	4	1	1
Sonchus oleraceus*	28						1							3			1												2			1	2		1	3		6	1								1	5	1	
Sorghum bicolor var. bicolor*	1					1																																												
Sorghum halapense*	3																					1	l														2													
Spartium junceum*	29	1					1	1	3					2		2	3				2					2				1		1	4		1		1										1	2	1	
Spergularia bocconi*	3																																		3															
Spergularia macrotheca var. leucantha	1																			1																														
Spergularia marina [S. salina]	6						1																												3		1										1			
Sphaeralcea ambigua var. ambigua	1																																								1									
Sphaeralcea emoryi var. emoryi	2																	2																																
Sphaeralcea parvifolia	1																															1																		
Sphenosciadium [Angelica] capitellatum	7																			7																														
Spinacia oleracea*	1																																		1															
Sporobolus airoides	2																							1				1																						
Sporobolus cryptandrus	1																																1																	
Stachys ajugoides	4					1			l																										2															
Stachys albens	76		1	2		1		2	2 2	2		2	2			1			1	3	5 1	1	1	4	1		1	1	5							1		18	;		1		1	1				6		1
Stachys bullata	16															2					4														1	3	1					2					1			2
Stachys rigida var. quercetorum	2																																	1												1				
Stachys rigida var. rigida	5																								1									1		1														2
Stanleya pinnata var. pinnata	15	1			1		5																	2			2	1				1									1								1	
Stebbinsoseris heterocarpa	20						2											1															6						10)			1							
Stellaria media*	23								l			1		3							5			1	1								3			2	2		1					1			1			1
Stellaria neglecta*	2													1										1																										
Stellaria nitens	8							1				1															1	1				1	1						2									Ι	\Box	
Stephanomeria cichoriacea	33							1								2	2				2								2				1			10		3						1	3	1	3	2		



																									Bi	ior	egi	on	s																							
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	HV	LM	LV	Dal	ru SI	01 C	ып MintC	M	MP	NR	ΗO	OP	PM	ΡV	PMR	PP	PorR	RM	DDD	RV	SadM	SFC	SGabM	SGM	SCR	SPC	SPR	South	Sawiyi	or	SPV	SM	TehM	TTM	Pum	Pcu	Su	ΗΛ	WSM	WP	WPR
Stephanomeria diegensis	1												ľ	ľ			ľ			1													1				Ì				ľ								Π			
Stephanomeria exigua ssp. carotifera	6												6																																				Π			
Stephanomeria exigua ssp. coronaria	20									1			5																					1	1					1	1	2	2				9					
Stephanomeria exigua ssp. exigua	6	1													1											3																1	1						Π			
Stephanomeria paniculata	1									1																																										
Stephanomeria parryi	4																																	4																		
Stephanomeria pauciflora var. pauciflora	36	3						2					4					2										1	1 1	. 4	Ļ	1	2	1	2				(1)	3		1 5	5			2				1		
Stephanomeria tenuifolia	1							1																																												
Stephanomeria virgata	51			4	9			1					1				1	1		1					1			1	8 1	2	2		2						1	1							3			5		
Stephanomeria virgata ssp. pleurocarpa	30				1			1	1				2	1			1	1		1	1				1	4				4	Ļ				2	2			e	5		1	1					1				
Stephanomeria virgata ssp. virgata	28							1							1	1	Į	1										1	2	3	3		3	1	1		1		7	7		1								1	1	2
Stillingia linearifolia	11																															3	1						3			2	2						1			1
Stipa brachychaeta*	0																																																Π			
Stipa cernua	26	1			1		2					1						2							2			3						1						4	4	7	7							2		
Stipa comata var. comata	1																										1																									
Stipa coronata	50					2	2		1				2		1	2	2 5	5 1			5	2		1		1		1	1	1			1				3		3 3	3 1	1	1			1	1	1	2		1	1	3
Stipa hymenoides	12	1									1	1								1					1										1							1	1				5		Π			
Stipa latiglumis	1																																		1														Π			
Stipa lemmonii var. lemmonii	3																																		3														Π			
Stipa lepida	23						3								1 1	l		2											2	2	2		3			1	2		1			2	2						Π	1	1	1
Stipa miliacea var. miliacea [Oloptum miliaceum]*	71					1	1	1							2 1	4	1 2	2			1		5						7 6	5 2	2		5	1		2	14		2 6	5 1	1							1	1	2	1	2
Stipa pulchra	22				2		1								?						1															2				63	3	1	1	1					4		6	1
Stipa speciosa	83	4			6	1		2		3	7		5		1			3						1	3	1		3	1 1					3			T		2	2 5	5	1	2			6	9		\square	4		
Stipa tenuissima*	1																		1																								T	T					Π	$ \top$	╡	
Stipa thurberiana	6																			3						2																	T	T			1		Π	i T	T	
Streptanthus campestris	1																																						1	ι			T	T					Π		╡	



							-																		B	lioi	eg	ioı	ıs																						
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	HV	LM	LV	Plm	Pcl	SI	Sm	MintC	MB	MD ND	NK OH	ao	Md	Ad	PMR	PP	PorR	RM	RRM	RRR	RV	SAUM	SGahM	SGM	SCR	SPC	SPR	SSM	SawM	SP	SEV	SMS	ТерМ	MTT	Pum	Pcu	Su	НЛ	WSM	wr WPR
Streptanthus tortuosus	2																											1			1																	Π			
Stuckenia pectinata	4														1													1						1								1									
Stuckenia striata	1																																			1															
Stutzia [Atriplex] dioica	1																																			1															
Stylocline gnaphaloides	25				1		1		1				2						2			1						2					2	2 5				1				7	7								
Stylocline masonii	4																																									4	Ļ								
Stylocline psilocarphoides	1																																									1									
Suaeda calceoliformis	7																						6	5												1															
Suaeda californica	9																						7	7												2															
Suaeda esteroa	11																						1	1																											
Suaeda nigra	8																						6	5												2															
Suaeda taxifolia	17																						1	6												1												\square			
Symphoricarpos albus var. laevigatus	27			9						6										67	3						1	1						6						1								П			
Symphoricarpos mollis	10												2					2									1					1		2		1	1											\square			
Symphoricarpos rotundifolius var. parishii	111			2						1				1						9	8	1				6																			1		1				
Symphyotrichum ascendens	2													1												1																									
Symphyotrichum chilense	1		1																																																
Symphyotrichum dumosum var. dumosum*	1																																				1														
Symphyotrichum greatae	13																													3				1						4						3	1			1	
Symphyotrichum lanceolatum var. hesperium	2													1			1																																		
Symphyotrichum spathulatum var. spathulatum	1																1																															\square			
Symphyotrichum subspicatum var. subspicatum	5																			2	ţ		1																									Π			
Symphyotrichum subulatum var. elongatum*	2												2																																			Π			
Symphyotrichum subulatum var. parviflorum	3						1											1																					1												
Syntrichopappus fremontii	6	1																						1				1													2	1							Ш		
Syntrichopappus lemmonii	5																							1																	3	1									



																								B	lioi	reg	ior	ıs																							
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLA	L'M	GH HV	L.M	TA	Plm	Pcl	SI	Sm	MintC	M	MP	NK	un D	PM	PV	PMR	PP	PorR	RM	RRM	RRR	RV SodM	SFC	SGabM	SGM	SCR	SPC	SPR	Sourch F	CD	or cmu	SolC	SM	TehM	TTM	Pum	Pcu	Su	HA	WSM WP	WF	VV F.IV
Tamarix aphylla*	1	ĺ			?		?			ľ	2	?		?	?					I				?						?					1								?		?				??	??	?
Tamarix chinensis*	2																																1								1								T		
Tamarix parviflora*	1																															1																			
Tamarix ramosissima*	34		1		2		3							4		2											1		1	1			1		3	1	2	4 1	_						1	2			5 1	i	
Taraxacum officinale*	2											1																														1							Τ		
Taraxia [Camissonia] subacaulis	1						1																																												
Tauschia arguta	36				1			1	l			7				1	1				4					1			1				3			3		4	5 1	1				2	1				1 2	2	
Tauschia hartwegii	14					3			1	l				1														1				1					2		10	3		1		1					Τ		
Tauschia parishii	14								4	5		2								2					2								1													2			Τ		
Tetradymia axillaris var. longispina	2																																						1	l	1								Τ		
Tetradymia canescens	3					1			1	l																												1	l										Τ		
Tetradymia comosa	9					1												1														1	1				1	1	2	2	2								Τ		
Tetradymia stenolepis	2										1																						1																Τ		
Tetrapteron [Camissonia] graciliflorum	27				3						1 2	2												3			7				1		2							3	1		3						Τ	1	1
Tetrapteron [Camissonia] palmeri	6				1						1									3																					1								Τ		
Thalictrum fendleri var. fendleri	4			1					1	l			1																													1							Τ		
Thalictrum fendleri var. polycarpum	2																																1																Τ	1	1
Thamnosma montana	1																																								1								T		
Thermopsis californica var. argentata	21			1	1				1	2		2													11		2																			1			Τ		
Thermopsis macrophylla var. macrophylla	1								l																																								Τ		
Thermopsis macrophylla var. venosa	1																								1																								T		
Thysanocarpus curvipes ssp. amplectens	4							2																											2														T		
Thysanocarpus curvipes ssp. curvipes	26				2	1					1	2		2													11					1						1	4	1									T	1	ı
Thysanocarpus curvipes ssp. eradiatus	1																																																1		
Thysanocarpus desertorum	5	Ţ							T	T		1	T							T				1					1									1	1	1	1						T		T	Τ	
Thysanocarpus lacinatus var. laciniatus	53		1			4		2				4		3			1						1	1			4	1	1	1	1 2	2 3	5			2		6	5 2	2	5					1			2		1



																								Bio	ore	gi	on	s																							
Species	Total	AV	ABC	AM BM	BC	CV	DSR	DLR	FM	GH	HV	LM	LV	Prim	n IS	Sm	MintC	М	MP	NR	ΟH	OP	PM	PV	PMK	Г. ПП	FOLK	RM RRM	RRR	RV	SadM	SFC	SGabM	SGM	SUK	SPU	SCM	SawM	SP	SPV	SolC	SM	TehM	TTM	Pum	Pcu	Su	HA	WSM WP	WPR	
Torilis arvensis*	9						1																										1		7	7															
Torilis nodosa*	2																																		2	2															
Toxicodendron diversilobum	160		2		1		9	2				4	1	.0 3	2	8		1		7	1		1		1	1 2	2	5 12	2			2	4		1 1	0	4	30) 1	1	1	6		1	5		2	2 1	14 2	2	
Toxicoscordion [Zigadenus] brevibracteatum	7							1					1						2						1					1			1																		
Toxicoscordion [Zigadenus] fremontii	12							3							1					3	1									1														2						1	
Toxicoscordion [Zigadenus] venenosum var. venenosum	3																		1											2															Π						
Tragopogon dubius*	8			2					2							1			1					1										1																	
Tribulus terrestris*	5																											1				1	1		1	l		1							Π						
Trichostema austromontanum ssp. austromontanum	1			1																																															
Trichostema lanatum	78			2	9		2	1				2		7	1	2	6			6								6	1			7	3		2	2	1	. 1	6		3			1	2				3 2	2	
Trichostema lanceolatum	12			1		1						1			1																		2		1					1		2							2		
Trichostema micranthum	4												1																					3																	
Trichostema parishii	3																																2								1										
Trifolium albopurpureum var. albopurpureum	21			1	L	3	1																	3	1	4	2	2	2			1							1				3							1	
Trifolium ciliolatum	10					4														3													1									1						1			
Trifolium cyathiferum	2																		2																																
Trifolium depauperatum var. amplectens	1																																				1														
Trifolium depauperatum var. truncatum	1																																			1	1														
Trifolium fucatum	5												1																								3	i										1			
Trifolium gracilentum var. gracilentum	32					4	2							1 1									1	1		4	4	2	1			2							9		2		2		Π						
Trifolium hirtum*	5						1																					1					1																2		
Trifolium microcephalum	10			1		1						1		1		1											1			1											1					2					
Trifolium monanthum ssp. grantianum	4																		4																										Π						
Trifolium monanthum ssp. monanthum	3																		3																																
Trifolium obtusiflorum	9											4														4	2	2	2																				1		
Trifolium variegatum var. geminiflorum	5																													1				3												1					



																								B	ior	eg	ion	IS																						
Species	Total	AV	ABC	AM	BM		LV Pcb	DSK	FM	GH	ΗV	ΓM	LV	Plm	Pcl	SI	Sm	MINUC	MD	NR	HO	OP	PM	ΡV	PMR	ΡΡ	PorR	RM	RRM	RRR	RV SodM	SFC	SGabM	SGM	SCR	SPC	SPR	SSM	SawM	SP	Solf	SM	TehM	TTM	Pum	Pcu	Su	ΗΛ	MSM	wr WPR
Trifolium variegatum var. major	1								1																																						ł			
Trifolium variegatum var. variegatum	15			1					1												2			1						1	1			2												4	1			1
Trifolium willdenovii	12								1			1		1													1						2			3										1				2
Trifolium wormskioldii	6																		1					2	3																									
Triodanis biflora	1																																						1											
Tripleurospermum inodorum*	1																																		1															
Triteleia ixioides ssp. ixioides	0																			?					?																						ł			0
Triticum aestivum*	4																	1	1					2																										
Tropidocarpum gracile	28				1	1 1	1			1	2							1						2			5						4							1	5	5	4				ł			
Turricula parryi	60			1		1		1			1	2	1				2		1	13	3 1			1	6		5	2			1		1	2	1	1			8	2	1			3			1		Τ	1
Turritis [Arabis] glabra	10											1													1			1						1					1							5				
Typha angustifolia	1																																		1															
Typha domingensis	43							1				2		6	1	2	4								1			1	4	1					2	4			2						8	2			1	1
Typha latifolia	2																																			1		1												
Ulmus minor*	2																	1														1																		
Ulmus parvifolia *	2																																		1					1										
Ulmus pumila*	1																																1																	
Umbellularia californica var. californica	35		1			1	1	1						1		3	1			5	2				1								3		1	5		2				2		4			1			1
Uropappus lindleyi	111	1			10	1 6	5	8		1		3					7	2						7	2		2	4		7		2	3	3	2	3			5	5	1	4	1			5			5	2
Urospermum picroides*	3																																			3														
Urtica dioica ssp. holosericea	35		1		1			1		1		2		2			1		8				1				2		1						3			2	3	1	l				1	1		2	1	
Urtica urens*	8											2		1		1																1	2		1															
Venegasia carpesioides	2															1																				1											\square	\Box		
Veratrum californicum var. californicum	3																		3																													\Box		
Verbascum thapsus*	3				2	2																											1															⊥		
Verbascum virgatum*	2																															1			1												1			



																									Bi	ore	egi	on	S																						
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	AH	LM	LV Di	Pel	IS	Sm	MintC	M	MP	NR	HO	0P	PM	ΡV	PMR	μ	PorR	RM	RRR	RV	SadM	SFC	SGabM	SGM	SUK	2 DEC	WSS	SawM	SP	SPV	SolC	SM	TehM	MIT.	Pcu	Su	НЛ	MSM	WP WPR	77 F F F
Verbena bracteata	1																																					1													
Verbena lasiostachys var. lasiostachys	26		1		1												3				1				2	2					2		1	2		1		2								1	3		1	1 2	2
Verbena lasiostachys var. scabrida	9												2											1				1	1				1	1						2											
Verbena tenuisecta*	1						1																																												
Verbesina encelioides ssp. exauriculata*	2																						2																												
Veronica americana	15									2				2						10)																								1	l					
Veronica anagallis-aquatica*	26					3	1	1					1		1		2										1				4		1	1		1			1	3		2		1					1	1	
Veronica peregrina ssp. xalapensis	14						1			1				1						2																				8										1	
Veronica persica*	4																																													4					
Veronica serpyllifolia ssp. humifusa	1																			1																															
Vicia americana ssp. americana	26				2								4	1			1								4	1		7					1					1	1				1	2							
Vicia hassei	4																													1								2		1											
Vicia ludoviciana var. ludoviciana	1																												1																						
Vicia villosa ssp. varia*	1									1																																									
Vicia villosa ssp. villosa*	1				1																																														
Vinca major*	3																																			2	2											1			
Vinca minor*	2																																			2	2														
Viola macloskeyi ssp. macloskeyi	1																			1																															
Viola pedunculata ssp. pedunculata	7													4	2		1																1			1														2	2
Viola pinetorum ssp. grisea	4													1						3																															
Viola pinetorum ssp. pinetorum	6													1						4						1																									
Viola purpurea ssp. mesophyta	1																			1																															
Viola purpurea ssp. mohavensis	4				1						2		1																																						
Viola purpurea ssp. purpurea	25					2							5															5			3								2	1						7					
Viola purpurea ssp. quercetorum	17									1							3				1	2				5									2							1					1			1	
Vitis californica	1														Ι																					1															



																					T				Bi	or	egi	ion	IS																						
Species	Total	AV	ABC	AM	BM	BC	CV	DSR	DLR	FM	GH	HV	LM	۲V	Pel	5	Sm 2	MintC	M	MP	NR	HO	0P	PM	ΡV	PMR	ΡΡ	PorR	RM	KKM	RRR	K V SodM	SFC	SGabM	SGM	SCR	SPC	SPR	SSM	CD	SPV	SolC	SM	TehM	TTM	Pum	Pcu	Su VII	WSM	WP	WPR
Vitis girdiana	5																													?				3		2								Π					Τ		
Vitis vinifera*	1																												1	1														Π					Τ		
Vulpia [Festuca] bromoides*	3																								1	1						1												\square					Τ		
Vulpia [Festuca] microstachys var. ciliata	4												1															1											1	l				1							
Vulpia [Festuca] microstachys var. confusa	5												1																										2	2 1	1			1							
Vulpia [Festuca] microstachys var. microstachys	34												1			1	4			1	1				2	3		2	1				1	2			2		2 1	1 4	4	2		1			2	1			Π
Vulpia [Festuca] microstachys var. pauciflora	18				1	1	1	1																	1			3			2		1							2	2	5		Π							
Vulpia [Festuca] myuros var. hirsuta*	2																																1				1							Π					Τ		Π
Vulpia [Festuca] myuros f. megalura*	1																														1													\square							Π
Vulpia [Festuca] myuros f. myuros*	41			1				1					2		1		1	3					1					1	1		1	1	1	3	2		2		e	5 3	3	2		Π			5			2	1
Vulpia [Festuca] octoflora	5																1	2	2																							2		\square							Π
Vulpia [Festuca] octoflora var. hirtella	1																											1																\square							Π
Vulpia [Festuca] octoflora var. octoflora	7												1				1											1						1						1	1	2									
Washingtonia robusta*	2						1																													1								\square							Π
Woodwardia fimbriata	5															1													1	1							3														
Wyethia ovata	1																																									1									
Xanthium spinosum*	1						1																																												
Xanthium strumarium	23					-	1							4	4	1	2												1	3		1		1		2			1 1	l	1							1	1 2		1
Xylorhiza tortifolia var. tortifolia	1																	1																																	
Yabea microcarpa	11			1									1		1											2								1			1		1	1	1		1							1	
Yosemitea [Boechera] repanda	20			8						1										2		1				6									1				1	l											
Yucca brevifolia var. herbertii	12				1								2												5			2												2	2										
Zannichellia palustris	17					2								1	2													2				2		1		7															
Zeltnera exaltata	5						1								1													1				2																			
Zeltnera venusta	3						1																								1									1	1										



	Bioregions
Species	Total AV ABC AM BM BM BM BM BC CV CV CV DSR DRR FM FM FM Plm MintC M MintC M MintC M MintC M MintC M M MintC M M Plm N RRM Plm SS SS SS SS SS SS SS SS SS SS SS SS SS
Total # Observations	39,058 161 161 161 161 161 161 161 11 701 801 801 801 801 801 701 701 701 701 701 701 701 701 701 701 701 701 701 701 701 701 702 565 565 572 111 111 111 1133 1264 605 923 1337 11431 1337 1543 1543 1543 1543 1543 1543
Total # Taxa	2,356 98 98 269 269 269 269 269 269 269 269 269 260 261 262 291 267 267 267 267 260 261 262 374 260 374 260 261 262 343 365 144 260 572 270 378 188 378 164 165 375 260 260 365 373 373 378 152 260 260 260