

A photograph of a field of native plants with purple flowers, set against a background of rolling green hills. The text is overlaid on the image.

# Native Plant Ordinance Stakeholder Meeting

January 21, 2025

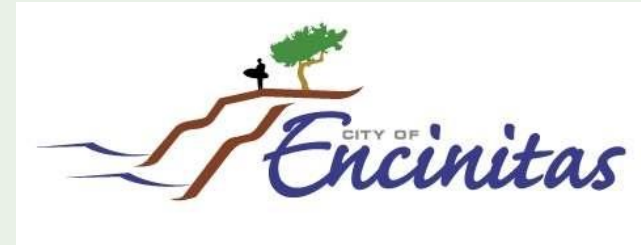
# Agenda

- Introductions (All) 5 min
- Background/History (City) 10 min
- Project Goals and Objectives (City) 5 min
- Identifying the List(s), Three Part Process (*not a new list*) 75 min
  1. Review comprehensive research "Lists" (*solicit feedback*)
  2. Review ranked/recommended "Lists" (*solicit feedback*)
  3. Group Exercise: rank recommended lists into primary and secondary and identify top 4.
- Next Steps

# Project Team Introductions

## City of Encinitas

- Patty Anders, Planning Manager
- Sara Cadona, Associate Planner



## Consultant Team

- Lindsay Teunis, SWCA, Restoration Ecologist
- Shirley Innecken, SWCA, Senior Biologist
- Jennifer Montgomery, Schmidt Design Group, Landscape Architect
- Patrick Montgomery, Native West, Nursery Professional

# Background

- The City Council created a Native Plant Ordinance (NPO) subcommittee (Ehlers and Lyndes) and they held three joint meetings with the Planning Commission, Environmental Commission, and Urban Forest Advisory Committee on March 2022, May 2022, and August 2022.
- January 2023, City Council adopted Resolution No. 2023-03 to initiate the preparation of a NPO.
- March 2024, staff presented the City Council subcommittee's refined scope of work and estimated budget. Council provided policy direction and no action taken.
- June 2024, the City Council adopted Resolution No. 2024-65 approving a \$150,000 budget for the simplified NPO and to hire a consultant.
- July 2024, staff released a request for proposal (RFP) to hire a consultant for the NPO.
- October 2024, City Council approved the professional services agreement with SWCA Environmental Consultants.

*\*Note: The demonstration garden is a separate work effort and is being managed by David Norgard, Parks and Recreation Department.*

# Goals of Stakeholder Meeting

Per City Council Direction:

1. Review existing list(s) of southern California native plants and discuss what existing native plant lists shall be included in the NPO.
  - a) May contain one or more existing list(s) that have been created and maintained by other professional organizations.
  - b) No new plant palette will be created
  - c) No modifications to existing lists

# What Makes a Viable List?

## City/SWCA Team

- Complies with Council direction
- Updated Regularly
- Based on good science (documented/references)
- Regionally specific options (zip code, county, etc.)
- Shows native and non-native
- User-friendly by general public
- Added bonus for landscaping and other valuable info

# Review comprehensive research list

(Any resources missing that would make a valid list? 15 minutes)

- Reviewed 35+ resources with focus on San Diego and southern California
- Heavier focus on databases with indications of being viable "lists"
- Assigned each resource to a "category for ordinance use"
  - Primary/Secondary List for Native and Non-Native Classification
  - Other Resource for Potential General Public Use
  - Professional Resources
  - Seed/Plant Material Resources

	A	B	C	D	E	F	G	H	I	J	K	L
	Name	Sponsor/Organization	Link	Document Type	Maintained	Contact Information	Simple or Complex	Database (Y/N)	Description	Defensability of Definition(s)	Pro(s)	Con(s)
1	CalScape	CalScape is sponsored by CNPS	<a href="https://calscape.org/search">https://calscape.org/search</a>	Web-Based Document or List; excel spreadsheet	Yes; frequency unknown	<a href="https://calscape.org/contact">https://calscape.org/contact</a>	Moderate-Complex	Y	CNPS created CalScape to make it easier for more people to find and grow beautiful native plant gardens. Today, CalScape enjoys more than a million visits a year, making it California's top native plant website. CalScape Committee is comprised of CalScape users, landscape and nursery professionals, technology experts, and other native plant experts. Search database for 8550 native plants along with a variety of filters as well as address/city/zip. <i>CalScape adopts the taxonomy of the Jepson eFlora, the authoritative floristic reference for the state of California. The Jepson eFlora provides distributional information that CalScape uses to model potential plant ranges.</i>	High	User-friendly search and filtering options; can search by address; provides a comprehensive list of species; can search by nursery availability, plant type, sun and water needs, special uses, soil drainage, ease of care, wildlife suitability, size, flowering season, seasonality, cultivars and plant communities	(1) Does not show non-natives of anykind so use cannot verify that something ISN'T non-native. Can offset this con with a secondary search on an alternative website. Not a significant concern. (2) Cannot refine by "southern California" singularity. Not a significant concern. Confirm range by individual species or search by County
2	Calflora Search for Plants	Calflora	<a href="https://www.calflora.org/search.html">https://www.calflora.org/search.html</a>	Web-Based Document or List	Yes; frequency unknown	(510) 883-3148	Complex	Y	Calflora is a searchable database with a number of search pages including a general search for plants (opening page), a "what grows here" search page, and a planting guide search page. On the planting guide page you can search by address and select from a number of criteria including low water, riparian, shade, sci name, common name, etc. Less user-friendly than WUCOLS	Moderate	Can search by county; is comprehensive; has multiple search page options; can save lists to personal account; can search "what grows here" selecting from various search criteria and save resulting palettes	(1) doesn't include all common names, i.e. California pepper tree only comes up as Peruvian, perhaps because they don't want people to call it CA pepper tree but having a site with a variety of common names is important; (2) taxonomically current; (3) lacks plant and landscaping info useful for the general public
3	UC Davis -- California Center for Urban Horticulture	Water Use Classification of Landscape Species (WUCOLS)	<a href="https://ccuh.ucdavis.edu/wucols-db">https://ccuh.ucdavis.edu/wucols-db</a>	downloadable Lists based on selected search criteria	Yes; frequency unknown	530-752-1011; <a href="https://ccuh.ucdavis.edu/contact">https://ccuh.ucdavis.edu/contact</a>	Simple	Y	The WUCOLS Database allows the searcher to run queries based on: City/Region, Plant Name, Water Use, and/or Plant Types; one of the selectable Plant Types is CA Native; <i>the WUCOLS database is housed within the UC Davis California Center for Urban Horticulture and is, thus, overseen by a reputable educational/research facility</i>	Low (plant list based on a poll of LA use)	User-friendly; provides Water Use per plant; indicates which plants are native regardless of query; includes photographs for most spp.; can search by City or Region through a drop down or map; lists can be downloaded as QR codes, 5x7 bench cards, 7x11 bench cards, or in excel	(1) No option to create an account and save lists online; (2) limited to query options if plant name is unknown, or if only common name is known (3) unsure of how comprehensive the plant database is

# *Stakeholder Input/Group Discussion, 30 minutes*

## ***What do you think the top 2-3 viable lists are?***

### ***Reminder of Viable List Attributes:***

- Complies with Council direction
- Updated Regularly
- Based on good science (documented/references)
- Regionally specific options (zip code, county, etc.)
- User-friendly by general public
- Shows native and non-native
- Added bonus for landscaping and other valuable info

# Plant Lists Currently Identified as Viable by Consultant Research

*Let's talk about the differences, if any? 15 minutes*

- CalScape
- Calflora Search for Plants
- UC Davis -- California Center for Urban Horticulture
- USDA Plants Database
- San Diego County Plant Atlas
- Consortium of California Herbaria (CCH)
- Jepson

*Stakeholder Consensus Top 3?*

### Pros:

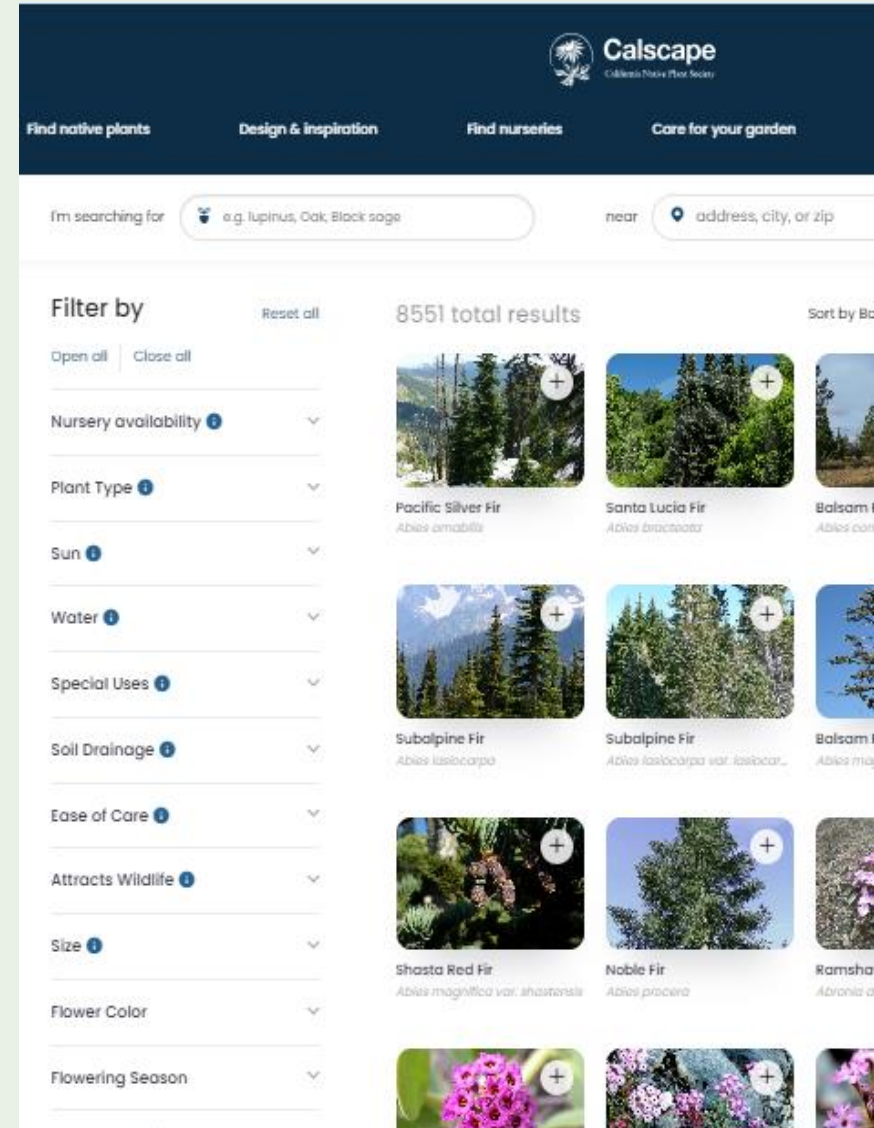
- CNPS created Calscape to help people find and grow native plant gardens. Over a million visits annually, making it California's top native plant website.
- Committee includes users, landscape and nursery professionals, tech experts, and native plant experts.
- Search a database of 8,550 native plants. User-friendly search and filtering options, can search by address. Uses Jepson eFlora taxonomy, the authoritative reference for California plants.
- Comprehensive list of species with descriptions, growth habits, care requirements, companion plants, and pollinators.
- Can search by nursery availability, plant type, sun and water needs, special uses, soil drainage, ease of care, wildlife suitability, and additional horticultural information.

### Cons:

- Doesn't show non-natives. Need to verify non-native status on an alternative website.
- Cannot refine by "Southern California" Range confirmed by individual species or search by County.

### Recommendation:

- Recommend as primary list for defining natives.
- Use secondary list (i.e. WUCOLS or Calflora or USDA Plants) for species that aren't found on this list when searching.



The screenshot shows the Calscape website interface. At the top, there's a navigation bar with links for 'Find native plants', 'Design & inspiration', 'Find nurseries', and 'Care for your garden'. Below this is a search bar containing 'a.g. lupinus, Oak, Black sage' and a location field with a placeholder 'address, city, or zip'. A 'Filter by' sidebar on the left allows users to refine results by various criteria: Nursery availability, Plant Type, Sun, Water, Special Uses, Soil Drainage, Ease of Care, Attracts Wildlife, Size, Flower Color, and Flowering Season. The main content area displays '8551 total results' and a grid of plant cards. Each card features a photo of the plant, a plus sign icon, and the plant's name and scientific name. Visible plants include Pacific Silver Fir (*Abies ornabilis*), Santa Lucia Fir (*Abies bracteata*), Balsam Fir (*Abies concolor*), Subalpine Fir (*Abies lasiocarpa*), Shasta Red Fir (*Abies magnifica* var. *shastensis*), and Noble Fir (*Abies procera*).



# Calflora: the nonprofit wild plant database

<https://www.calflora.org/search.html>

## Pros

- Users can search by county, use multiple search options, save lists to personal accounts, and search "what grows here" with various criteria
- Search page, and a planting guide search page
- Can search by address and select from a number of criteria including low water, riparian, shade, scientific name, and common name

## Cons

- Less user-friendly than WUCOLS
- Issues: (1) Not all common names included; (2) Taxonomically VERY current; (3) Lacks general public plant and landscaping info
- Used by landowners with LA support and professional LAs with native plant knowledge

## Conclusion

- Not recommended for primary list source, could be secondary

Calflora PLANTING GUIDE TOOLS

More Criteria  low water  riparian  shade

Check for wild plants:

- in the same ecoregion
- in the same county
- within 10 miles

Plants that grow with:

Scientific Name

Common Name

Click on the map to choose a new location, or enter an address.

Encinitas, CA

274 plants  Group by lifeform

<input type="checkbox"/>	Grass	36
<input type="checkbox"/>	Annual Herb	74
<input type="checkbox"/>	Perennial Herb	102

**Abronia maritima**  
*Sticky sand verbena*  
Perennial herb

**Abronia umbellata**  
*Beach sand verbena*  
Perennial herb

**Acmispon glaber**  
*Deerweed*  
Perennial herb

<https://www.calflora.org>

### Pros

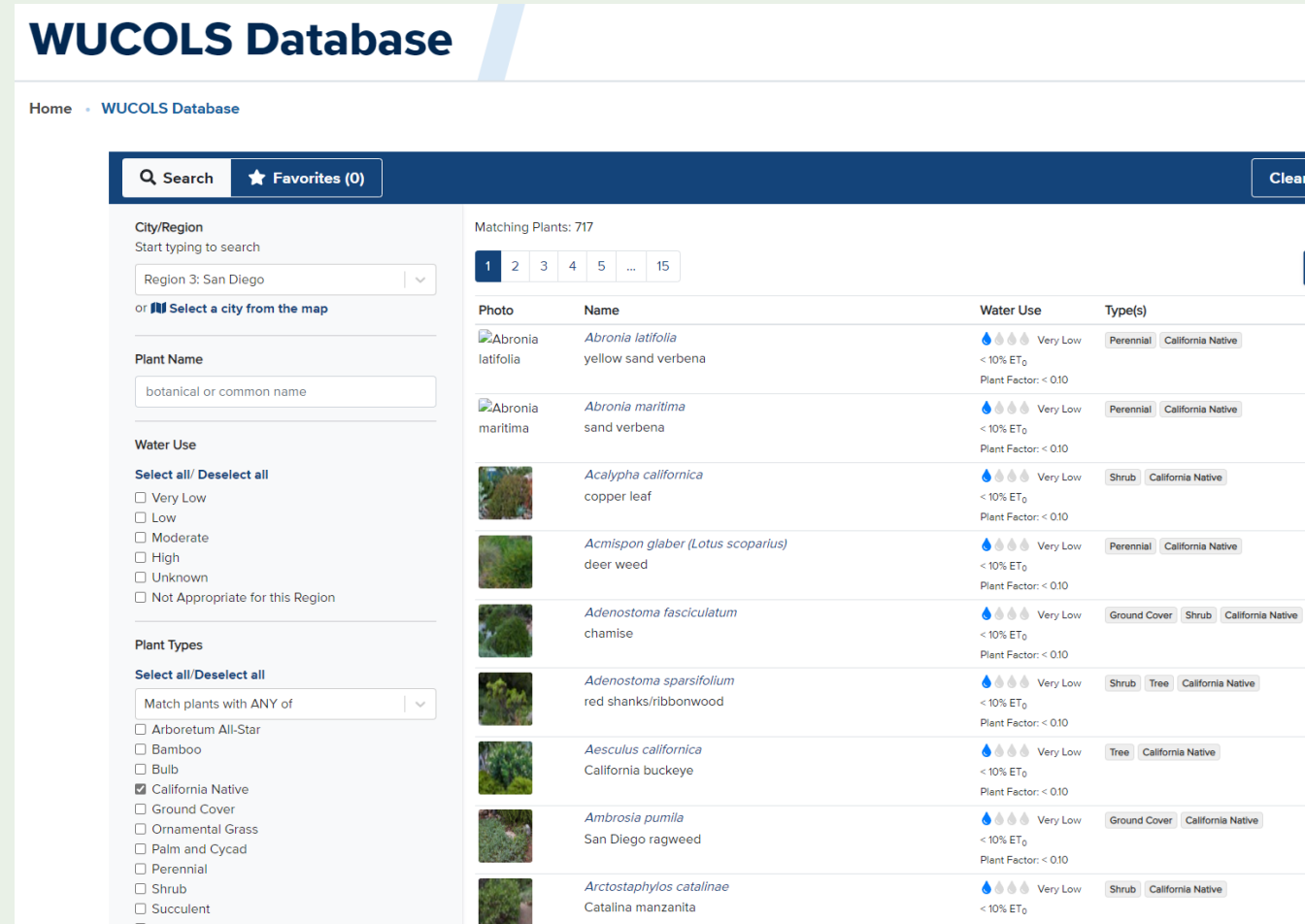
- Searchable by City/Region, Plant Name, Water Use, and Plant Type (including CA Native)
- Hosted by UC Davis California Center for Urban Horticulture
- User-friendly interface with options to search via drop-down menu or map
- Provides Water Use per plant and includes photographs for most species
- Indicates native plants, regardless of query

### Cons:

- No option to create an account and save lists online
- Limited query options when only the common name is known
- Sorts alphabetical and by water use (could lead to confusion)
- Plant list not comprehensive
- Native definition exceptionally broad

### Conclusion:

- Not recommended for primary list sources, could be secondary



**WUCOLS Database**

Home • WUCOLS Database

Search Favorites (0) Clear










City/Region  
Start typing to search  
Region 3: San Diego  
or Select a city from the map

Plant Name  
botanical or common name

Water Use  
Select all/ Deselect all  
 Very Low  
 Low  
 Moderate  
 High  
 Unknown  
 Not Appropriate for this Region

Plant Types  
Select all/ Deselect all  
Match plants with ANY of  
 Arboretum All-Star  
 Bamboo  
 Bulb  
 California Native  
 Ground Cover  
 Ornamental Grass  
 Palm and Cycad  
 Perennial  
 Shrub  
 Succulent  
 Tree

Matching Plants: 717

Photo	Name	Water Use	Type(s)
	<i>Abronia latifolia</i> yellow sand verbena	Very Low < 10% ET <sub>0</sub> Plant Factor: < 0.10	Perennial California Native
	<i>Abronia maritima</i> sand verbena	Very Low < 10% ET <sub>0</sub> Plant Factor: < 0.10	Perennial California Native
	<i>Acalypha californica</i> copper leaf	Very Low < 10% ET <sub>0</sub> Plant Factor: < 0.10	Shrub California Native
	<i>Acmispon glaber</i> ( <i>Lotus scoparius</i> ) deer weed	Very Low < 10% ET <sub>0</sub> Plant Factor: < 0.10	Perennial California Native
	<i>Adenostoma fasciculatum</i> chamise	Very Low < 10% ET <sub>0</sub> Plant Factor: < 0.10	Ground Cover Shrub California Native
	<i>Adenostoma sparsifolium</i> red shanks/ribbonwood	Very Low < 10% ET <sub>0</sub> Plant Factor: < 0.10	Shrub Tree California Native
	<i>Aesculus californica</i> California buckeye	Very Low < 10% ET <sub>0</sub> Plant Factor: < 0.10	Tree California Native
	<i>Ambrosia pumila</i> San Diego ragweed	Very Low < 10% ET <sub>0</sub> Plant Factor: < 0.10	Ground Cover California Native
	<i>Arctostaphylos catalinae</i> Catalina manzanita	Very Low < 10% ET <sub>0</sub> Plant Factor: < 0.10	Shrub California Native



# Natural Resources Conservation Service

U.S. DEPARTMENT OF AGRICULTURE

<https://plants.usda.gov/>

## Pros

- Native and naturalized plants of the PLANTS Floristic Area (PFA) which consists of North America and all additional U.S. territories and protectorates
- 38,000 plants + additional 5000 non-naturalized species.
- Detailed information on appearance, uses, growth needs, and ecological roles
- Features like Characteristics Search and the National Wetland Plant List help identify plants based on specific traits and wetland indicators
- Includes lists of invasive species and endangered plants, supporting conservation and land management efforts.
- Fact sheets and plant guides provide detailed, practical information for restoration and management

## Cons

- Search queries cannot be combined (e.g., State and Duration searches)
- Extensive... too much to navigate?
- When searching a state, you must choose by state and individual plant, rather than by a state or subregion to produce a comprehensive list for that geography;
- Is not very user-friendly for the general public

## Conclusion:

- Not recommended for primary list sources, could be secondary

The screenshot shows the PLANTS Database website interface. At the top, there is a navigation bar with links for 'PLANTS Database Home', 'Topics', 'Team', 'Downloads', 'Partners', 'Related Tools', 'Help', and 'Release Notes'. Below the navigation bar is a search form with a 'Scientific Name' dropdown menu, an input field, and a 'Search' button. To the left of the search form are several search filters: 'Characteristic Search', 'Duration Search', 'Fact Sheets/Plant Guides', 'Group Search', 'Growth Habit Search', 'Image Search', 'Invasive/Noxious Search', 'Rarity Search', 'State Search', and 'Wetland Search'. The main content area displays the 'PLANTS Database' title and a subtitle 'Plant List of Attributes, Names, Taxonomy, and Symbols'. It indicates 'Showing 12 of 12 results' for the search term 'white sage'. A list of results is shown, with the first result highlighted in blue: 'ARLU *Artemisia ludoviciana* Nutt. , white sagebrush'. Other results include 'SAAPC *Salvia apiana* Jeps. var. *compacta* Munz , compact white sage', 'SAAP2 *Salvia apiana* Jeps. , white sage', 'SAAPA *Salvia apiana* Jeps. var. *apiana* , white sage', 'ARLUA *Artemisia ludoviciana* Nutt. ssp. *albula* (Wooton) D.D. Keck , white sagebrush', 'ARLUC8 *Artemisia ludoviciana* Nutt. ssp. *candicans* (Rydb.) D.D. Keck , white sagebrush', 'ARLUE *Artemisia ludoviciana* Nutt. ssp. *estesii* K.L. Chambers , white sagebrush', 'ARLUI2 *Artemisia ludoviciana* Nutt. ssp. *incompta* (Nutt.) D.D. Keck , white sagebrush', 'ARLUL2 *Artemisia ludoviciana* Nutt. ssp. *ludoviciana* , white sagebrush', 'ARLUM2 *Artemisia ludoviciana* Nutt. ssp. *mexicana* (Willd. ex Spreng.) D.D. Keck , white sagebrush', 'ARLUR *Artemisia ludoviciana* Nutt. ssp. *redolens* (A. Gray) D.D. Keck , white sagebrush', and 'ARLUS *Artemisia ludoviciana* Nutt. ssp. *sulcata* (Rydb.) D.D. Keck , white sagebrush'. Below the list is a large image of a white sagebrush flower. To the right of the search results is a sidebar with a small image of a plant and the text 'Osage-or...' and 'Maclura pom...', and a 'View Profi...' button. At the bottom of the page, there is a section titled 'New PLANTS Website' with a welcome message and a link to 'What is PLANTS'.

<https://www.sdplantatlas.org/>

### Pros

- Intensive plant specimen collecting effort begun in 2003
- High density survey of the more than 2800 species found in the county
- Scientifically-sound, Intended as a tool for professional botanists, biologists or citizen scientists

### Cons

- Not designed for general public or landscaping
- Focused on San Diego County, not Southern California
- Steep learning curve/not user-friendly

### Conclusion:

- Not recommended for primary list sources, could be secondary but ultimately recommend as a general resource for interested users and not the ordinance reference.

<a href="#">Introduction</a>	<a href="#">Misc Info</a>	<a href="#">San Diego Plants</a>	<a href="#">Plant Searches</a>	<a href="#">Plant Mapping</a>
			<a href="#">Plants at a Location</a> <a href="#">Search a Map Rectangle</a> <a href="#">Plant Name Finder</a> <a href="#">Search the Database</a> <a href="#">Search Plant Photos</a> <a href="#">Geographic Searching</a> <a href="#">Login Required</a> <a href="#">Direct Entry to Herbarium DB</a>	
		<p><i>This project is sponsored by the San Diego Natural History Museum, Department of Botany Jon Rebman, Ph.D., Curator of Botany Layla Aerne Hains, Collections Manager</i></p>		
		<p>San Diego Natural History Museum Botany Department PO Box 121390 San Diego, CA 92112-1390</p>		



# Consortium of California Herbaria (CCH)

<https://ucjeps.berkeley.edu/consortium/>

## Pros

- Highly-curated vascular plant data from the Consortium of California Herbaria and other California specimens housed in herbaria, worldwide
- Scientifically-sound
- Can provide historical reference for plant distributions
- CCH adopts the taxonomy of the Jepson eFlora
- Provides coordinate data (latitude/longitude) for as many California specimens as possible

## Cons

- Not easy to use
- No common name search, or general regional lists
- Returns individual specimen observations
- Extensive... too much information to navigate
- Intended more so for use by researchers or professional botanists / biologists

## Conclusion:

- Not recommended for primary list sources, could be secondary but ultimately recommend as a general resource for interested users and not the ordinance reference.

## CCH1: Vascular Plants of California Search Page

### Scientific Name Search ?

- Select to search for name as entered  
(leave unchecked to search all synonyms)

Salvia apiana

e.g.: [Dudleya blochmaniae](#), [Dudleya blochmaniae insularis](#)

- Select to search hybrid formula names  
e.g.: [Dudleya blochmaniae](#). [Juglans regia](#)

### Geographic Location Search ?

One or two-word, ordered locality search

Enter one or two words

(The last word can be a partial word)

Results will search for these words in order

e.g.: [Round Meadow](#) returns only records with round and meadow in that order

[Mokel](#) will return all records that have a word starting with 'Mokel'

[Mount Dana](#) will search both 'Mount Dana', 'Mt. Dana' and other variants

Multi-word, unordered, strict keyword search

### Collector and Collector Number

Collector's Name

Enter one collector's name

(single-word search, last names produce the best results)  
e.g.: [Muir](#)

Collector Number

Enter one collector number

(any type, including strictly numeric or alpha-numeric)  
e.g.: [2334](#)

### County Search ?

All counties  
Alameda  
Alpine  
Amador  
Butte  
Calaveras  
Colusa  
Contra Costa  
Del Norte  
El Dorado  
Fresno  
Glenn  
Humboldt



<https://ucjeps.berkeley.edu/eflora/>

## Pros

- Statewide resource for industry professionals
- High quality data for those who need to identify/key native plants

## Cons

- Focus on plant identification, dichotomous key, too much for the home gardener
- No non-natives
- Only single plant searches/no geographical lists/no zip codes/county

## Conclusion:

- Not recommended for primary list sources, could be secondary but ultimately recommend as a general resource for interested users and not the ordinance reference.

### [Search the eFlora for a name:](#)

- **Scientific Name**

- **Common Name**

- **[Index to accepted names and synonyms:](#)**

| [A](#) | [B](#) | [C](#) | [D](#) | [E](#) | [F](#) | [G](#) | [H](#) | [I](#) | [J](#) | [K](#) | [L](#) | [M](#) |  
| [N](#) | [O](#) | [P](#) | [Q](#) | [R](#) | [S](#) | [T](#) | [U](#) | [V](#) | [W](#) | [X](#) | [Y](#) | [Z](#) |

- **[Key to families](#) | [Table of families and genera](#)**

### [Search eFlora Fields:](#) **[Advanced Search Page](#)**

### [Identify a plant from your region:](#)

- **Simplify plant identification with the new application [KeyBase](#), which filters keys based on Jepson regions:**

- **Click the map for more information about Keybase:**

