California Rare Plant Ranking and Conservation

Presented to the Board of Forestry, Joint Committee Meeting 8 December 2020 | virtual GoToWebinar





Aaron E. Sims | Rare Plant Botanist | (916) 738-7610CALIFORNIAasims@cnps.orgNATIVE PLANT SOCIETYasims@cnps.org



I. Rare Plant Status Review Process

II. California Rare Plant Ranks and CEQA

III. Rare Plant Surveys – 9 quad search

CNPS and CNDDB COPPERATIVE agreement since 1981

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- Collaborative goal of maintaining and enhancing knowledge of California rare plants
- Reduce duplication of effort
- Increase efficiency and be more cost effective
- Share all botanical data
- Co-located staff

CNPS and CNDDB assign conservation ranks to rare plants in California

CNPS initiates the <u>Status Review Process</u> and assigns / reassigns CRPRs in the CNPS Inventory with your assistance and guidance

Welcome to the Inventory of Rare and Endangered Plants of California

A resource for information about California's rare plants to promote education, scientific research, conservation planning, and effective enforcement of environmental laws.

SIMPLE SEARCH ADVANCED Full Data Search

Search

Fringe-petaled linanthus (Linanthus dianthiflorus) stands out as a spectacular member California's coastal bluff flora. Photo by Nick Jensen

Additions / Changes / Deletions		Currently in Review				
Frasera albicaulis var. cusickii added to CBR on 2018-12-10		Brodiaea rosea				
Frasera albicaulis var. modocensis added to 2B.3 on 2018-12-10		Erythronium citrinum var. roderickii				
Downingia willamettensis added to 2B.2 on 2018-09-27		Ceanothus foliosus var. viejasensis				
Petrophytum caespitosum ssp. caespitosum added to CBR on 2018-09-13		Ceanothus pendletonensis				
		Ceanothus thyrsiflorus var. obispoensis				
Catabrosa aquatica added to CBR on 2018-09-13						
Fucephalus glabratus added to 4.3 on 2018-08-29	*	Rare Plant Status Review Forum Forum Membership Information Status Reviewer Form				

www.rareplants.cnps.org

All Major Changes Since 6th Edition, 2001

Key factors assessed during review RARITY

- Total number and condition of Element Occurrences (EOs)
- Population size(s), range extent, and area of occupancy of EOs
- Environmental specificity

TRENDS

- Short- and long-term trends of EOs
- Is the element declining/increasing and how fast?

THREATS

- Scope, severity, and immediacy of threats
- Number of protected and managed EOs
- Intrinsic vulnerability

Sand plant (*Pholisma arenarium*) considered but rejected (CBR)

Status review documents are produced and distributed

Literature Review

Localities

Data Entry

2-4 Page Document

		Page	Name Used (if different)	EO D
	Floras (general)	1	and a second	
	Flora of North America (Vol. 3)	80		No
	Jepson Manual (1993)	450		No
	Jepson Flora (1907-1979) Vol. II			
	Jepson (1925)	372		Yes
	Munz (1959)	113		No
	Siepson, 2nd edition online at	http://ucjeps.t arkaley.edu/tj m2/review/tre atments/cabo mbaceae.htm #16062		
	Floras (Southern CA)			
	Mung (1974)	-		
	The Jepson Desert Manual (Elektwin et al. 2002)			
	Veg & Flora of the Sonoran Desert (Shreve & Wiggins 1964)- Vol.			
	Flora of Baja CA (Wiggins 1980)			
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Braseria schreber occurs in shallow freshveder lakes, ponds, dtches, and slow moving streams from approximately 30 to 2,200 meters in elevation. It mostly occurs in lakes throughout the north coast ranges and northern high Sierra Nevada of California.

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Documents are posted on Rare Plant Status Review Forum

California Native Plant Society		Search	▼ Q
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Topics	Statistics	Last Post	
Eucephalus vialis Started by asims, 06-09-2020, 04:36 PM	10 responses 39 views 0 likes	by MKnight 07-06-2020, 03:42 PM	
Remacladus inyoensis Started by asims, 06-10-2020, 05:22 PM	10 responses 85 views 0 likes	by keirmorse 07-02-2020, 12:14 PM	
Thermopsis gracilis Started by asims, 05-28-2020, 04:15 PM	8 responses 54 views 0 likes	by Rob Preston 06-19-2020, 04:17 PM	
Thermopsis californica var. argentata Started by asims, 05-28-2020, 04:29 PM	8 responses 50 views 0 likes	by Rob Preston 06-19-2020, 04:15 PM	

Documents are nosted on

Review forum is *not* open access, but anyone can request to join

- 1. All specific rare plant occurrences are posted
 - Prevent poaching and vandalism
 - Landowner privacy
- 2. Prefer to have qualified reviewers that provide scientifically accurate information
- 3. Don't have time/capacity to moderate public forum
- 4. Full reviews are also sent to regional email groups and public is notified via CNPS website

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Documents are emailed to Regional Review Groups



Regional Review Groups

over 200 participants are assigned to single or multiple groups



Contributors to the Review Process affiliations of the 200+ rare plant status reviewers



The diversity of qualified reviewers ensures that the final determinations of California Rare Plant Ranks are strong and well vetted.

Summary of status review process determining consensus and posting addition or change

- 1. Proposed addition or change identified
- 2. Conduct research and develop status review documents
- 3. Distribute documents to forum and regional groups
- 4. After 5-week period, review comments and any new data received
- 5. Determine if consensus is reached
 - Extend review if consensus is not reached or if people need more time
 - If consensus is reached make addition or change to CNPS Online Inventory and CNDDB

I. Rare Plant Status Review Process

II. California Rare Plant Ranks and CEQA

III. Rare Plant Surveys – 9 quad search

CNPS Inventory consists of six California Rare Plant Ranks (CRPRs)

California Rare Plant Ranks (CRPRs)

- 1A & 2A presumed extirpated in CA (28 plants)
- 1B rare in CA and elsewhere (1,185 plants)
- 2B rare in CA, common elsewhere (510 plants)
- 3 more information needed (74 plants)
- 4 limited distribution / watchlist (600 plants)

Threat Ranks

- 0.1 seriously threatened
- 0.2 moderately threatened
- 0.3 not very threatened

where the legislation kicks in

California Environmental Quality Act (CEQA)

- Government and public agencies must prepare environmental impact reports (EIRs) to disclose project impacts
- Required to identify mitigation measures and project alternatives
- Must allow public to review/comment, which may have influence on the process

CEQA Guidelines § 15380

Plants that meet the definition of rare, threatened, or endangered must be treated as such during environmental review

CRPR definitions in relation to CEQA 15380

CRPR 1A, 2A, 1B, and 2B *must be analyzed* during preparation of environmental documents relating to CEQA
CRPR 3 and 4 *should be analyzed*...

CEQA helps protect plants that are rare in California, but common outside of the state (CRPR 2Bs)



CEQA can help protect plants that are not endangered, but have a limited distribution in California (CRPR 4s)



Calochortus uniflorus (CRPR 4.2)



Darlingtonia californica (CRPR 4.2)

and CEQA can help protect plants that are locally rare **CEQA Guidelines § 15125 subd. (c)**: *"Special emphasis should be placed on environmental resources that are rare or unique to that region and would be affected by the project."*



Clarkia tembloriensis subsp. tembloriensis is locally rare in Corral Hollow, Alameda Co., but more common elsewhere in California.

Photos: © 2010 Neal Kramer (left), © 2010 Chris Winchell (right) (CalPhotos)

I. Rare Plant Status Review Process

II. California Rare Plant Ranks and CEQA

III. Rare Plant Surveys – 9 quad search

Why survey? yes, it can be costly, but...

- Must be conducted in order to comply with legislation and fulfill regulatory requirements
- May result in new species discovery (who wouldn't want to discover a species that's new to science? And in California it happens more than you might think...)
- Can prevent species from being ranked
- Can potentially result in species being downranked or deleted
 - CNPS and CNDDB need to analyze survey data in order to evaluate species for downrank or deletion

Why 9-quad search?

searches for project planning are meant to be broad

- Species may be present in other areas where conditions are favorable
- More refined searches do not capture potential species presence
- CNDDB and CNPS location data cannot be used as substitution for pre-project review or on-site surveys
 - Must conduct on-site surveys to determine species presence

Increased occurrences can coincide with field surveys and data prioritization





Increased occurrences can coincide with field surveys and data prioritization

CNDDB data from 2009 near UC Merced (map courtesy of Kristi Lazar 2017)



CNDDB plants in Shasta Lake region in 2009



CNDDB plants in Shasta Lake region in 2019



4 Shasta Lake region endemics described in within 3 years and a 5th nearby being described right now...

Erythranthe taylorii 1B.1 (Nesom 2013)

Erythronium shastense 1B.2 (York et al. 2015) (Photo: 2015 Len Lindstrand III) Vaccinium shastense subsp. shastense 1B.3 (Kierstead Nelson and Lindstrand 2015)

Adiantum shastense 4.3 (Huiet et al. 2015)

Oregon goldthread (*Coptis laciniata*) changed from 2B.2 to 4.2 in 2014



Images © 2017 Hayley Ross (CalPhotos.org)

41 occurrences of *Coptis laciniata* in 2009

122 occurrences of *Coptis laciniata* in 2014



41 occurrences of *Coptis*

122 occurrences of *Coptis* laciniata in 2014

Valuable Lessons

- 1) Absence of data in CNDDB and CNPS Inventory must not be used to justify negative declarations
- 2) CNDDB and CNPS Inventory are only as good as the data received
- 3) Surveys can lead to discovery of new species
- Surveys can prevent species from being ranked and may also result in species being downranked or deleted



Many thanks!

Roxanne Bittman Kristi Lazar Nick Jensen Greg Suba Julie Kierstead CNDDB & Ca. Dept. of Fish and Wildlife The Nature Conservancy **NatureServe** Consortium of

California Herbaria & Jepson Herbarium and the 100's of volunteers that contribute to rare plant science and conservation! Contact Info: Aaron E. Sims Rare Plant Botanist (916) 738-7610 asims@cnps.org