

California Rare Plant Ranking and Conservation

Presented to the Board of Forestry, Joint Committee Meeting

8 December 2020 | virtual GoToWebinar



Conservation



Education



Gardening



Publications



Rare Plant Science



Vegetation Science



CALIFORNIA
NATIVE PLANT SOCIETY

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I. Rare Plant Status Review Process

II. California Rare Plant Ranks and CEQA

III. Rare Plant Surveys – 9 quad search



CNPS and CNDDDB cooperative agreement since 1981

- ❁ 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 CNDDDB assign conservation ranks to rare plants in California

- ❁ CNPS initiates the Status Review Process 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** SEARCH Full Data Search



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

Additions / Changes / Deletions

- [Frasera albicaulis var. cusickii](#) added to CBR on 2018-12-10
- [Frasera albicaulis var. modocensis](#) added to 2B.3 on 2018-12-10
- [Downingia willamettensis](#) added to 2B.2 on 2018-09-27
- [Petrophytum caespitosum ssp. caespitosum](#) added to CBR on 2018-09-13
- [Catabrosa aquatica](#) added to CBR on 2018-09-13
- [Fucephalus olabratus](#) added to 4.3 on 2018-08-29

Currently in Review

- [Brodiaea rosea](#)
- [Erythronium citrinum var. roderickii](#)
- [Ceanothus foliosus var. viejasensis](#)
- [Ceanothus pendletonensis](#)
- [Ceanothus thrysiflorus var. obispoensis](#)

[Rare Plant Status Review Forum](#) | [Forum Membership Information](#) | [Status Reviewer Form](#)

All Major Changes Since 6th Edition, 2001

www.rareplants.cnps.org

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)

Documents are posted on Rare Plant Status Review Forum



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FORUMS

RARE PLANT RANKING & REVIEW INFO

New Topics

Forum > Rare Plant Status Review

Rare Plant Status Review

Forum for exchanging information related to the review of rare plant status.

✓ SUBSCRIBED

TOPICS

LATEST ACTIVITY

MY SUBSCRIPTIONS













PHOTOS

+ New Topic

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Filter



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
 Nemacladus 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 posted 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



FORUMS

New Top

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Started by

 [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



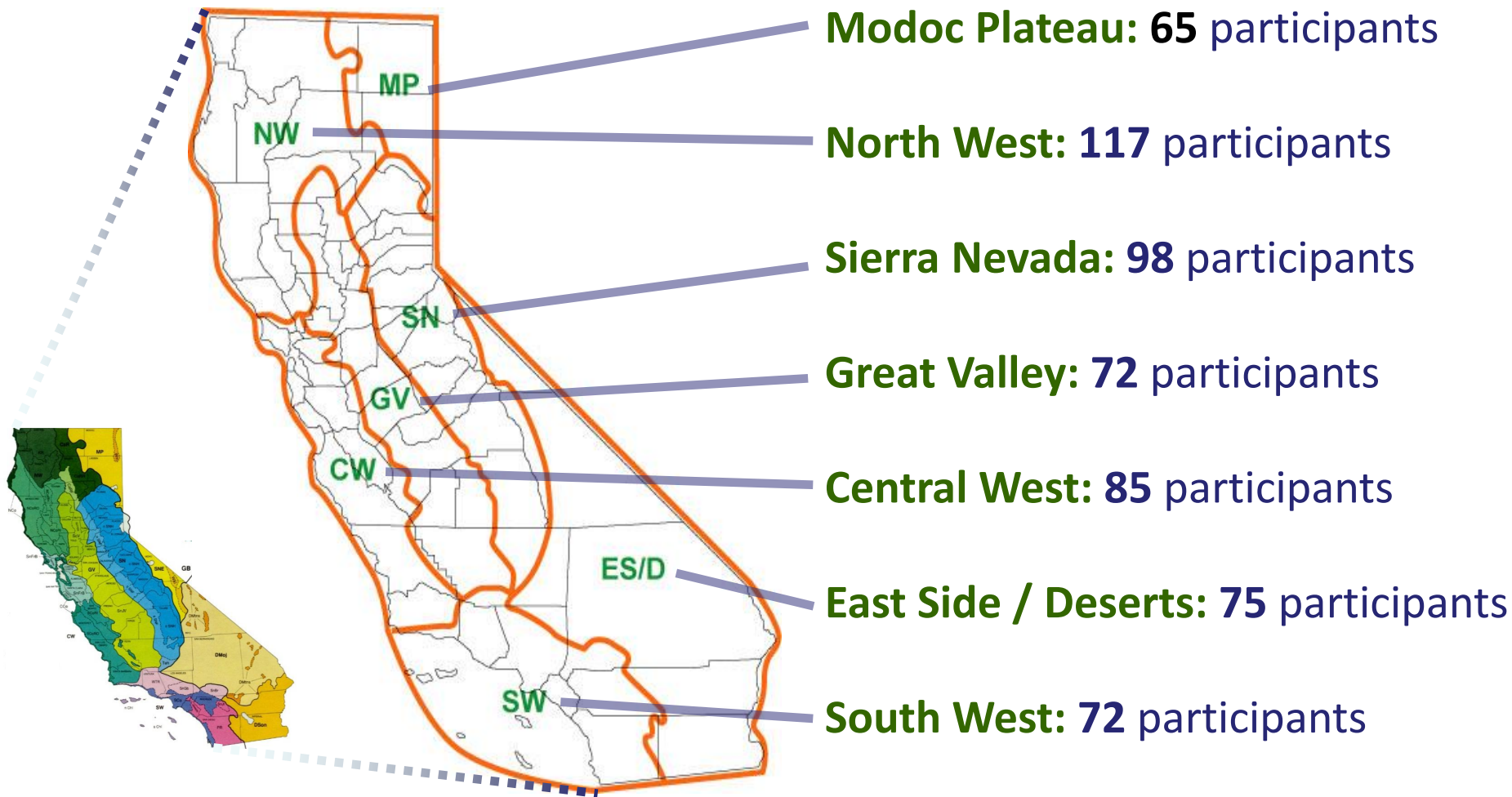
RIBED

Documents are emailed to Regional Review Groups



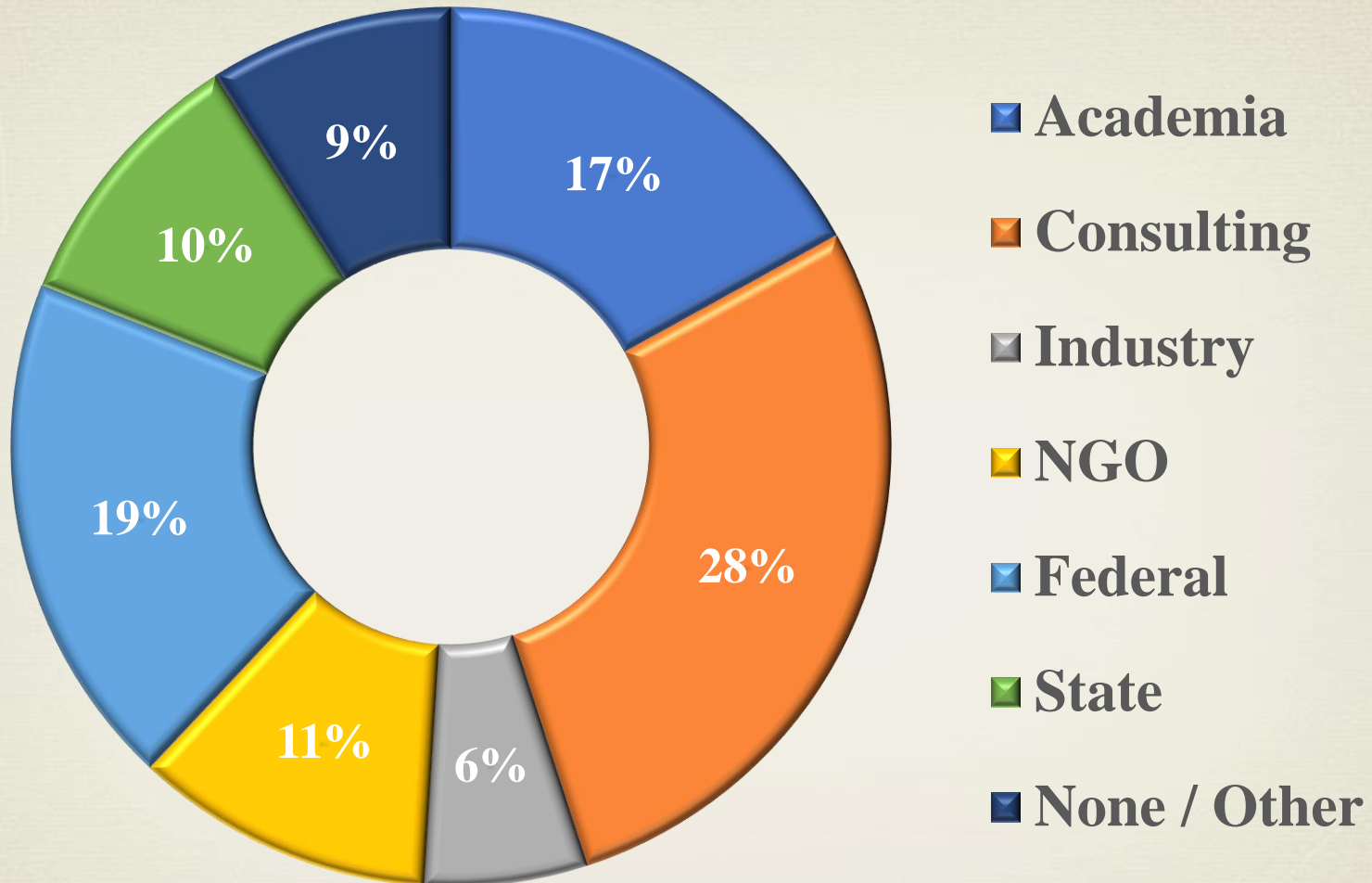
Regional Review Groups

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 CNDDDB

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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)



Botrychium manganense (CRPR 2B.2)



Drosera anglica (CRPR 2B.3)

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.

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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 CNDDDB need to analyze survey data in order to evaluate species for downrank or deletion

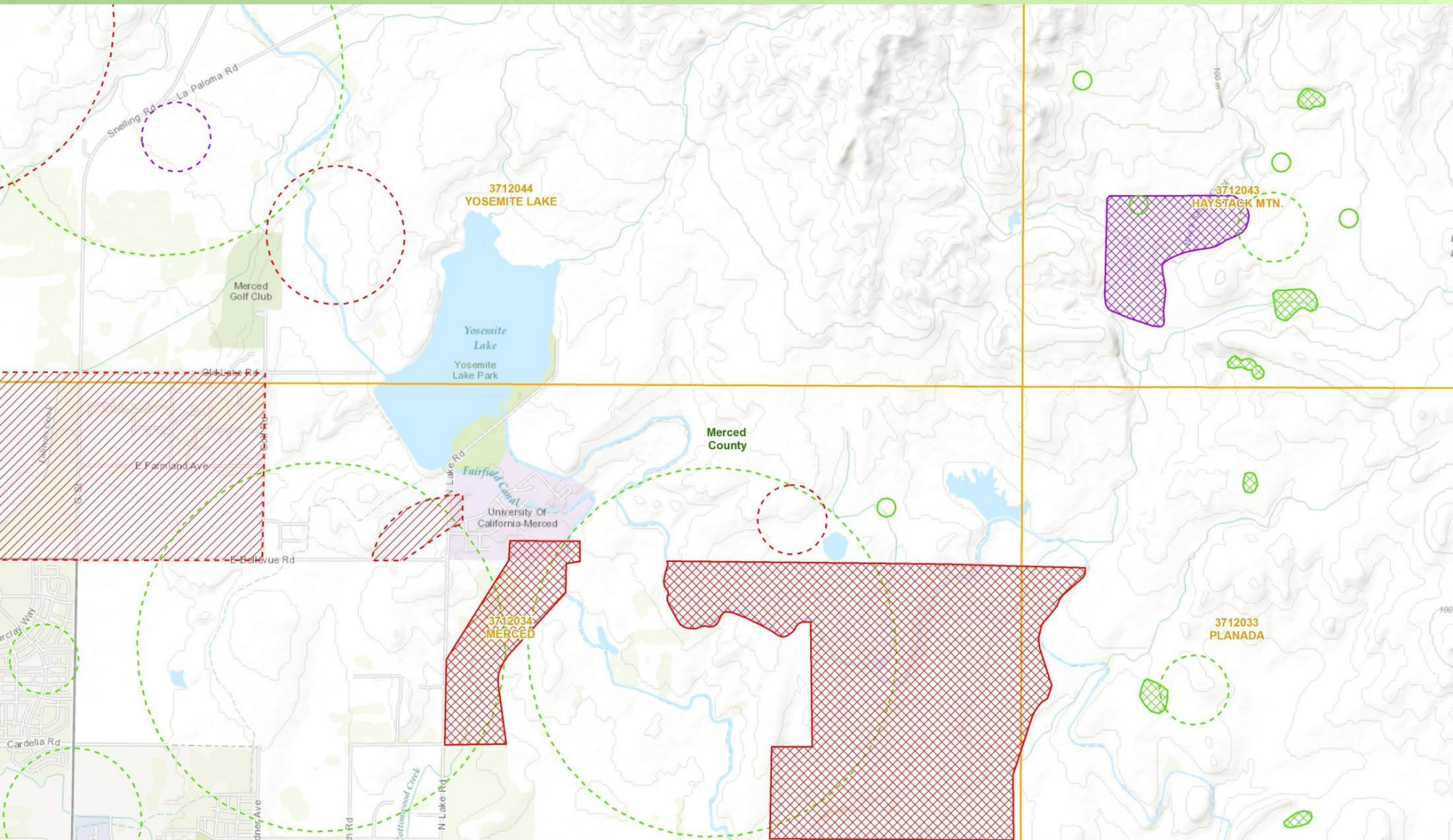
Why 9-quad search?

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
- CNDDDB 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

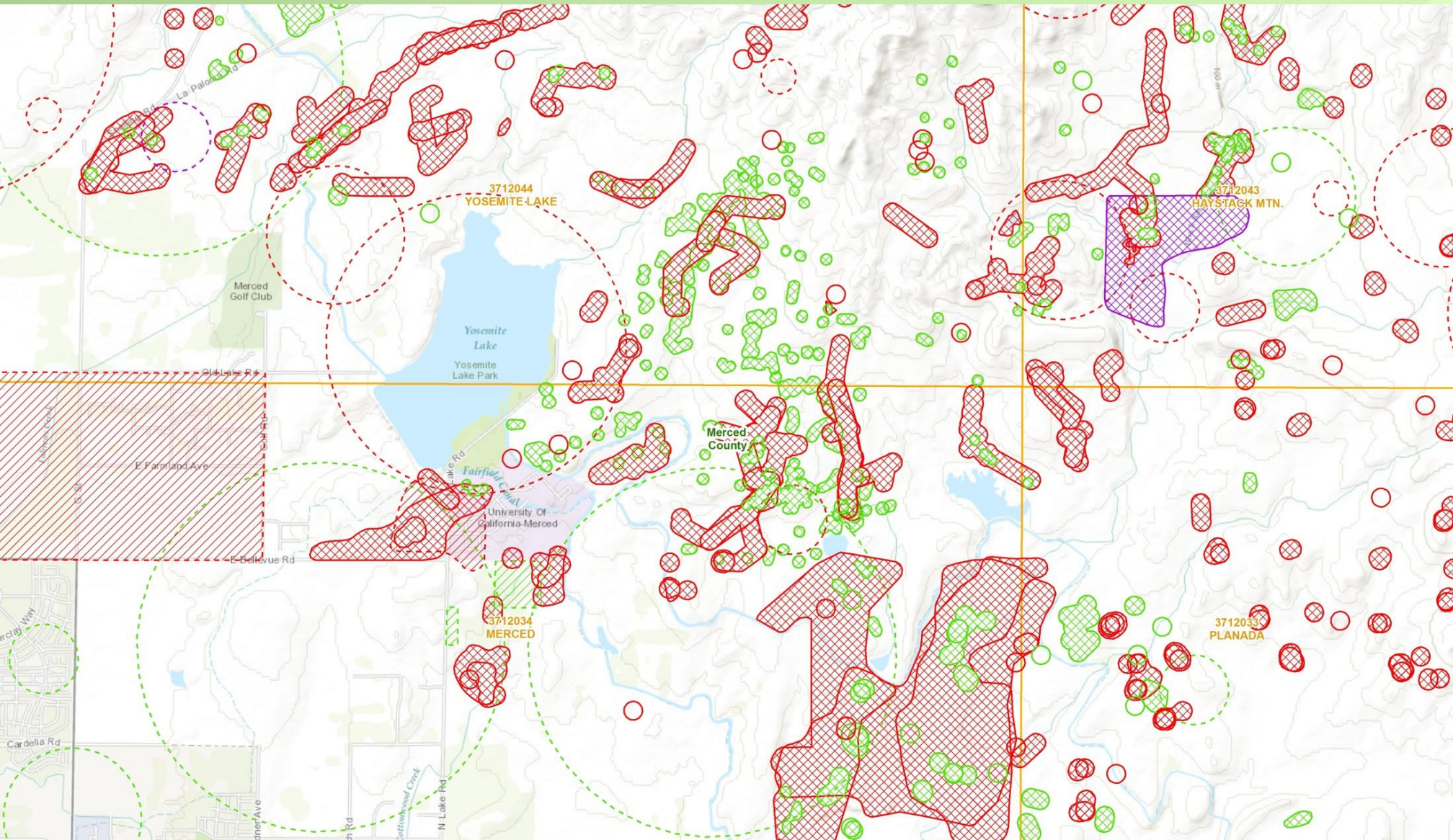
Increased occurrences can coincide with field surveys and data prioritization

CNDDDB data from **2000** near UC Merced (map courtesy of Kristi Lazar 2017)

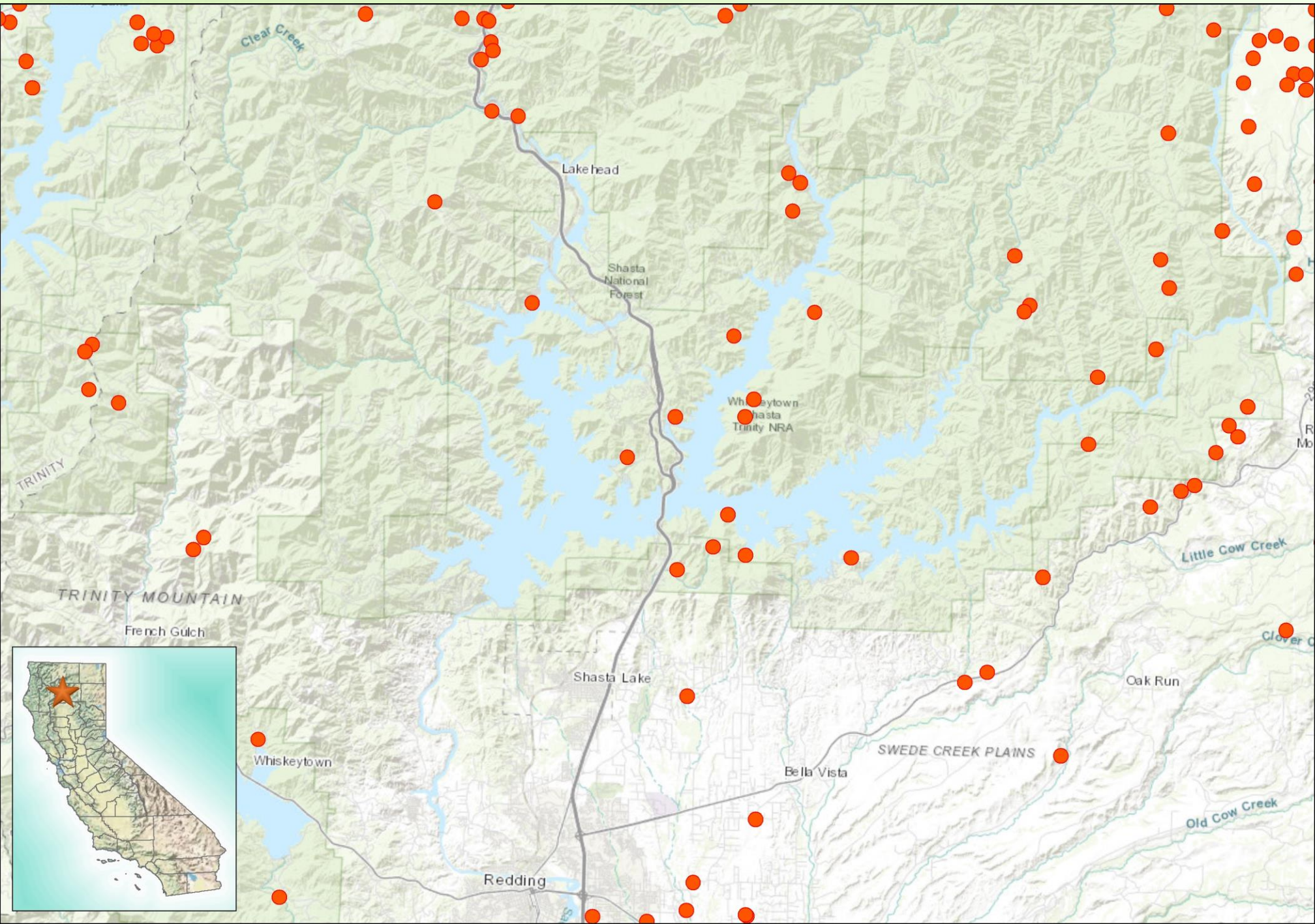


Increased occurrences can coincide with field surveys and data prioritization

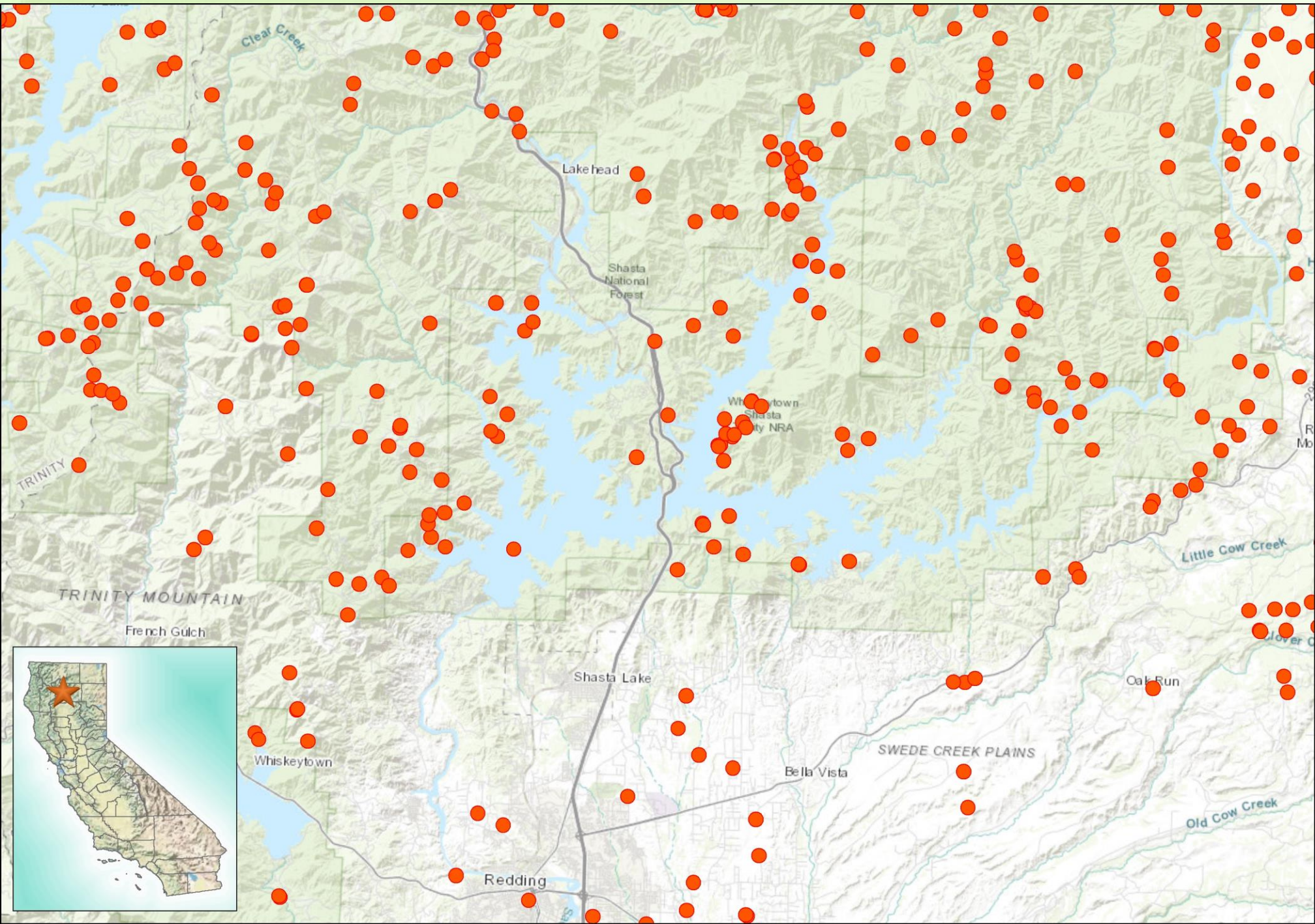
CNDDDB data from **2009** near UC Merced (map courtesy of Kristi Lazar 2017)



CNDDDB plants in Shasta Lake region in 2009



CNDDDB 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)



Vaccinium shastense subsp. *shastense* 1B.3
(Kierstead Nelson and Lindstrand 2015)



Erythronium shastense 1B.2 (York et al. 2015)
(Photo: 2015 Len Lindstrand III)



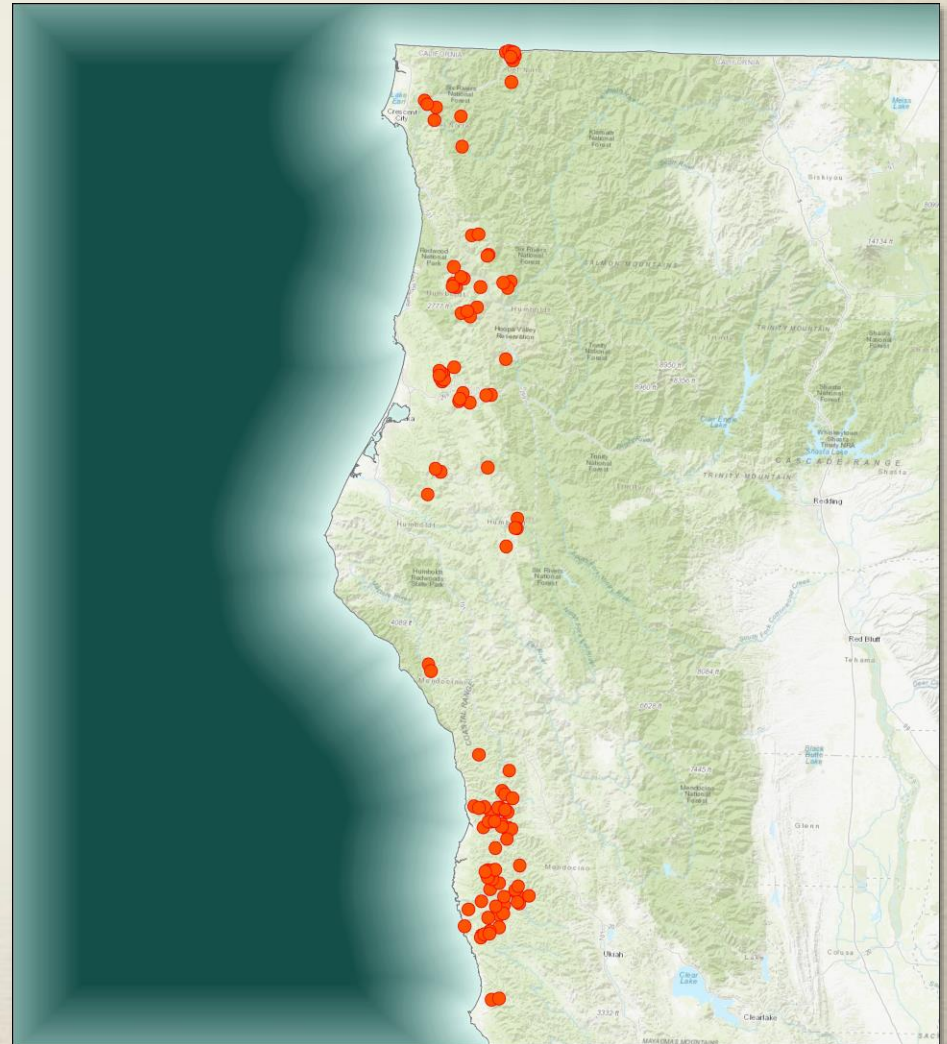
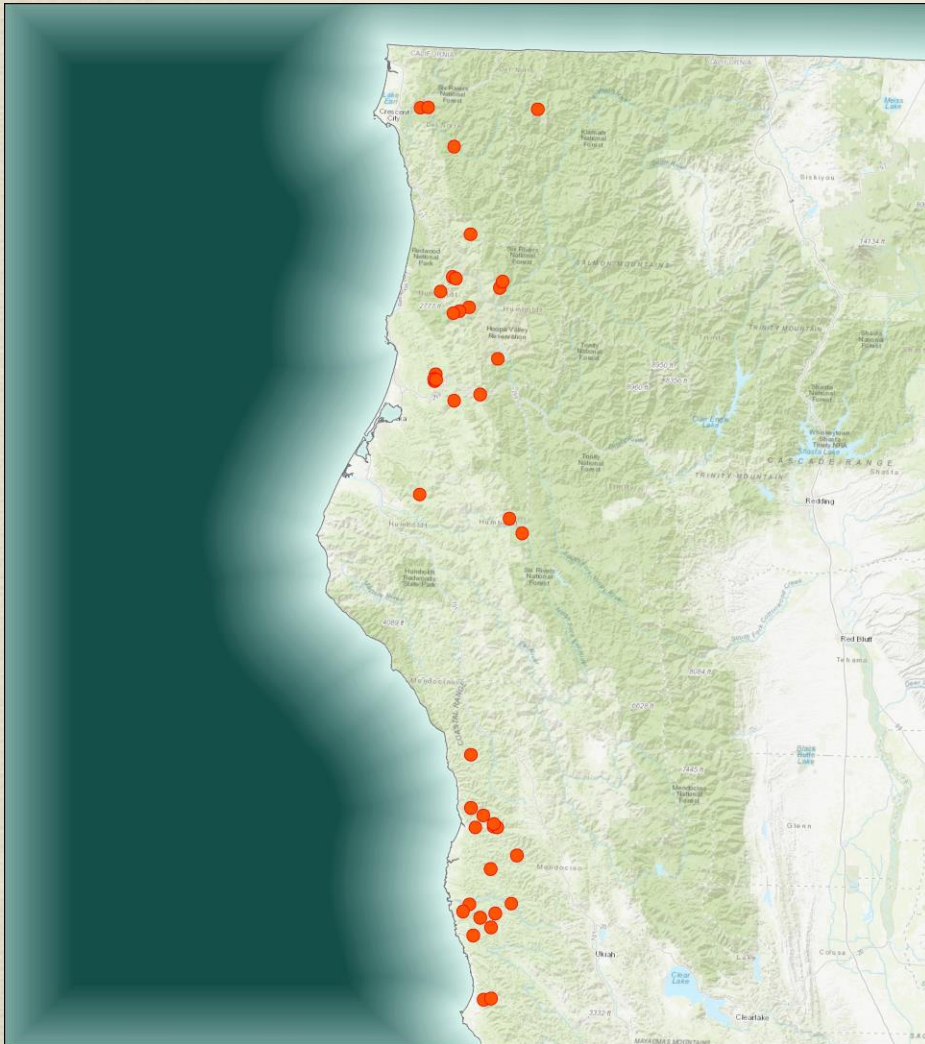
Adiantum shastense 4.3 (Huiet et al. 2015)

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



41 occurrences of *Coptis laciniata* in 2009

122 occurrences of *Coptis laciniata* in 2014

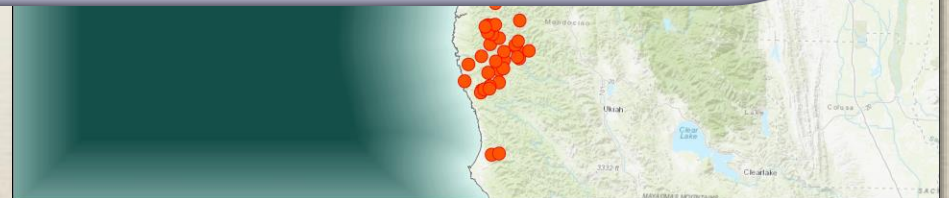


41 occurrences of *Coptis laciniata* in 2009

122 occurrences of *Coptis laciniata* in 2014

Valuable Lessons

- 1) Absence of data in CNDDDB and CNPS Inventory must not be used to justify negative declarations
- 2) CNDDDB and CNPS Inventory are only as good as the data received
- 3) Surveys can lead to discovery of new species
- 4) 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

CNDDDB & 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!



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