

# Coordinated Regional Strategy in the Central Sierra Using CalWeedMapper

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UC Cooperative Extension -

Central Sierra

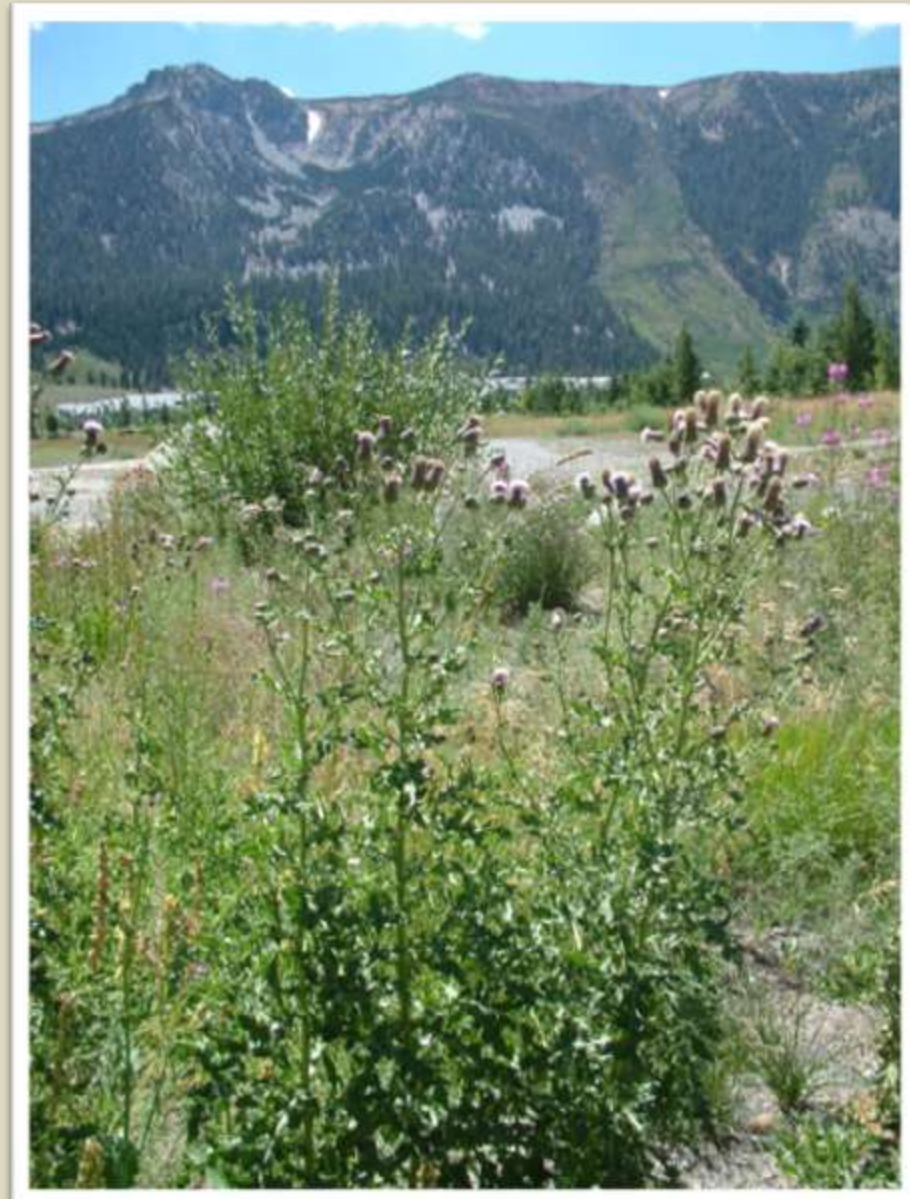


Photo: Bob Case

# Regional Planning with CalWeedMapper

- Prepare for funding opportunities
- Collaborative planning at the landscape level (2-5 counties)
- A region contains many Cal-IPC Inventory species
- Goal: focus on a handful of early detection species within a region
- Supplement, not supplant, existing local priorities



- Result of Cal-IPC statewide mapping effort - and your expert knowledge contributions!
- Provides information about the distribution of species statewide by combining expert knowledge data and occurrence (GIS) data into one system
- Data submitted to Calflora or CalWeedMapper will update distribution of that species

<http://calweedmapper.calflora.org>



# Regional Planning: Steps

Cal-IPC works with local land managers to:

1. Translate information from CalWeedMapper to **regionwide** opportunities for surveillance & eradication
2. Draft **Strategic Plan** for review by land managers
3. **Eradication** targets: apply for funding to address top 5 regional species
4. **Surveillance** targets: learn and survey for early detection and rapid response
5. Watch for **new detections** of these species and respond rapidly!

# Regional Strategy

Step 1:

Translate information from CalWeedMapper to **regionwide** opportunities for surveillance & eradication

- Based on Cal-IPC rating, impacts, mapping and local concerns.



# Regional Strategy

Step 2:

- Draft **Strategic Plan** for review by land managers



**REGIONAL STRATEGY FOR THE CENTRAL COAST – 2012**

This Regional Strategy can help land managers improve their coordination of invasive plant management at a multi-county scale, while providing the basis for future funding proposals. It is derived from local knowledge and CalWeedMapper's Management Opportunity Report at [calweedmapper.calflora.org](http://calweedmapper.calflora.org). Species were selected from Cal-IPC's statewide [Invasive Plant Inventory](#). Please submit weed location data to [Calflora](http://Calflora) and alert Cal-IPC of new potential [wildland invaders](#) in your region. Send questions to [mapping@cal-ipc.org](mailto:mapping@cal-ipc.org) or call 510-843-3902.

**I. ERADICATION TARGETS.** Land managers will work together to eradicate all populations of these species in the region within five years. These are intended to be integrated into local strategies, if appropriate, without replacing existing local priorities. Species may be removed from the eradication list, pending more information.

SPECIES	COMMON NAME	LINK TO MAP
1 <a href="#">Aegilops triuncialis</a>	barb goatgrass	<a href="#">CalWeedMapper: Aegilops triuncialis</a>
2 <a href="#">Centaurea stoebe ssp. micranthos (= Centaurea maculosa)</a>	spotted knapweed	<a href="#">CalWeedMapper: Centaurea stoebe ssp. micranthos (= Centaurea maculosa)</a>
3 <a href="#">Lythrum salicaria</a>	purple loosestrife	<a href="#">CalWeedMapper: Lythrum salicaria</a>
4 <a href="#">Asparagus asparagoides</a>	bridal creeper	<a href="#">CalWeedMapper: Asparagus asparagoides</a>
5 <a href="#">Fallopia japonica (= Polygonum cuspidatum)</a>	Japanese knotweed	<a href="#">CalWeedMapper: Fallopia japonica (= Polygonum cuspidatum)</a>
6 <a href="#">Centaurea diffusa</a>	diffuse knapweed	<a href="#">CalWeedMapper: Centaurea diffusa</a>
7 <a href="#">Chondrilla juncea</a>	rush skeletonweed	<a href="#">CalWeedMapper: Chondrilla juncea</a>

# Central Sierra Regional Strategy

## Top 5 Eradication goals:

1. Purple starthistle *Centaurea calcitrapa*
2. Diffuse knapweed *Centaurea diffusa*
3. Spotted knapweed *Centaurea stoebe ssp. micranthos*
4. Canada thistle *Cirsium arvense*
5. Oblong spurge *Euphorbia oblongata*



*Oblong spurge*



*Purple starthistle*



*Spotted knapweed*

# Eradication target 1: purple starthistle

**basic** | **advanced**

SEARCH BY COMMON NAME ▾  
SEARCH BY SCIENTIFIC NAME ▾

suitable range map available




Photo © Regents of the University of California

***Centaurea calcitrapa***  
**(purple starthistle)**

Cal-IPC Rating: Moderate  
Other Ratings: CDFA B

**species description**

Get Species Map Report

Draft Regions ▾  
SELECT REGION ▾

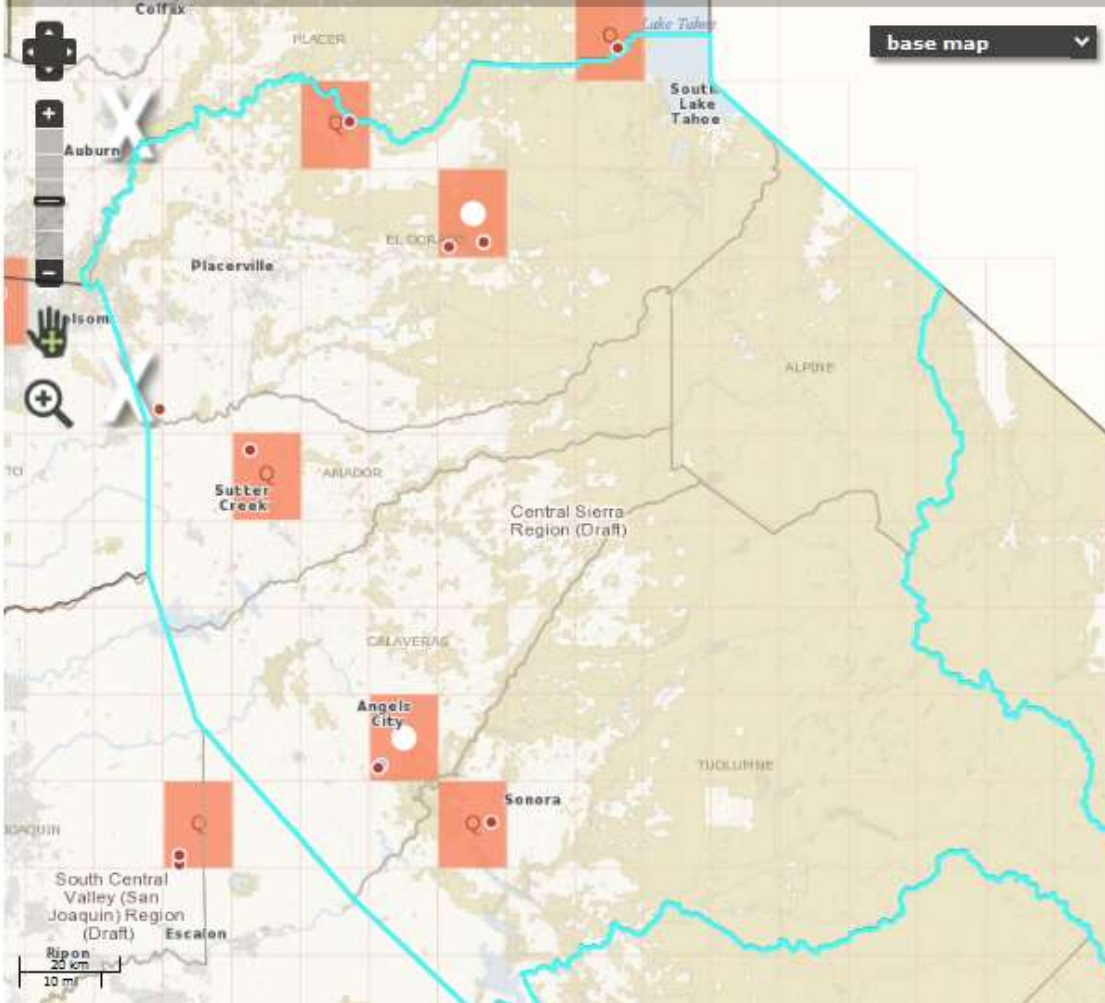
**Central Sierra Region (Draft)**

**Management Opportunities**

Surveillance: ?	30 species >>
Eradication: ?	7 species >>
Containment: ?	118 species >>
Managed: ?	38 species >>

CREATE A REPORT ▾ | MANAGE MAP LAYERS ▲ | ?

base map ▾



Medium  
High

**Trend**

- Spreading
- Managed, spreading
- ◻ Managed, decreasing
- ✕ Eradicated

**Verification Needed**

- ◻ Verify Quad
- ◻ Verify Species

Adjust transparency:

**SORRY. THERE IS NO SUITABLE RANGE MODEL AVAILABLE FOR THIS SPECIES.**

OCCURRENCE OBSERVATIONS

- Consortium of California Herbaria
- Calflora

**CONSERVATION LAYERS**

DFG's Areas of Conservation

East Sierra Region (Draft)

Ripon 20 km / 10 mi



# Eradication target 2: diffuse knapweed

basic
advanced

CREATE A REPORT
MANAGE MAP LAYERS
?

SEARCH BY COMMON NAME

SEARCH BY SCIENTIFIC NAME

suitable range map available




Photo © Regents of the University of California

***Centaurea diffusa***  
**(diffuse knapweed)**

Cal-IPC Rating: Moderate  
Other Ratings: CDFA A, BAEDN

*species description*

Get Species Map Report

Draft Regions

SELECT REGION

**Central Sierra Region (Draft)**

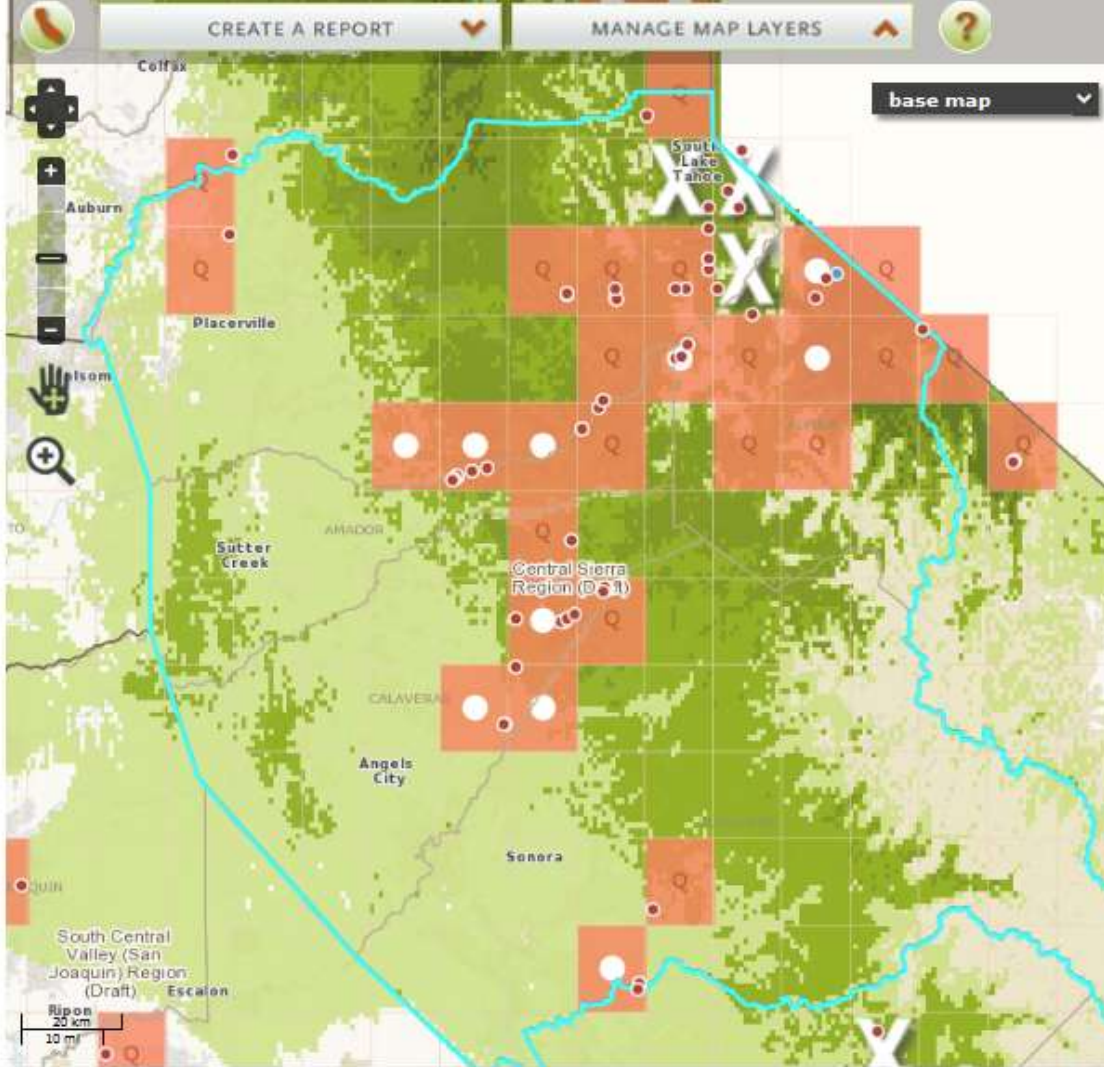
**Management Opportunities**

Surveillance: 2 30 species >>

Eradication: 7 7 species >>

Containment: 2 118 species >>

Managed: 7 38 species >>



base map

- Medium
- High

**Trend**

- Spreading
- Managed, spreading
- Managed, decreasing
- Eradicated

**Verification Needed**

- Verify Quad
- Verify Species

Adjust transparency:

**SUITABLE RANGE**

2010  2050

- Low
- Medium
- High
- Very High

OCCURRENCE OBSERVATIONS

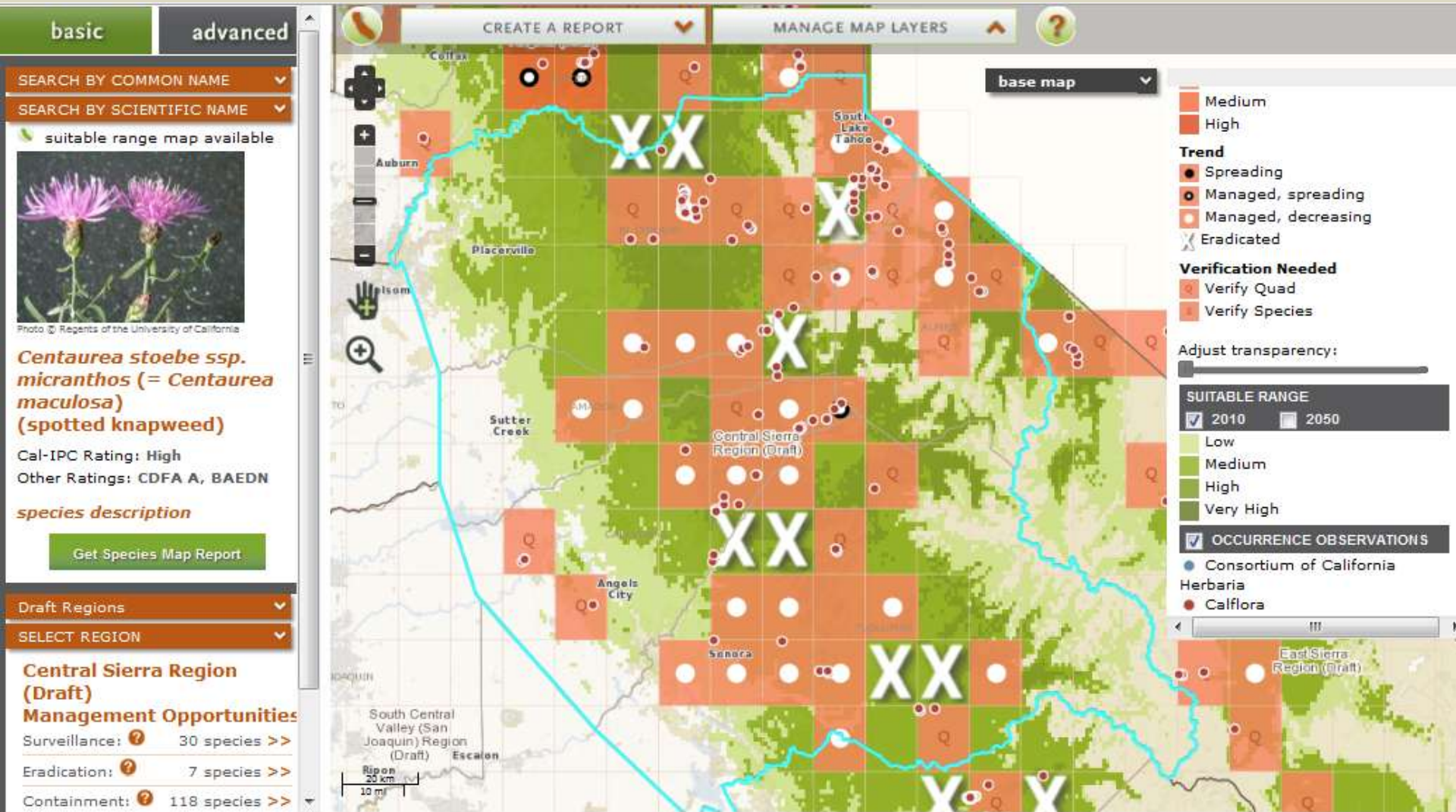
- Consortium of California Herbaria
- Calflora

East Sierra Region (Draft)

South Central Valley (San Joaquin) Region (Draft)

Ripon 20 km  
10 mi

# Eradication target 3: spotted knapweed



# Eradication target 4: Canada thistle

CREATE A REPORT
LEGEND / CHOOSE LAYERS
?

SEARCH BY COMMON NAME

SEARCH BY SCIENTIFIC NAME

*indicates suitable range map is available in advanced mode*




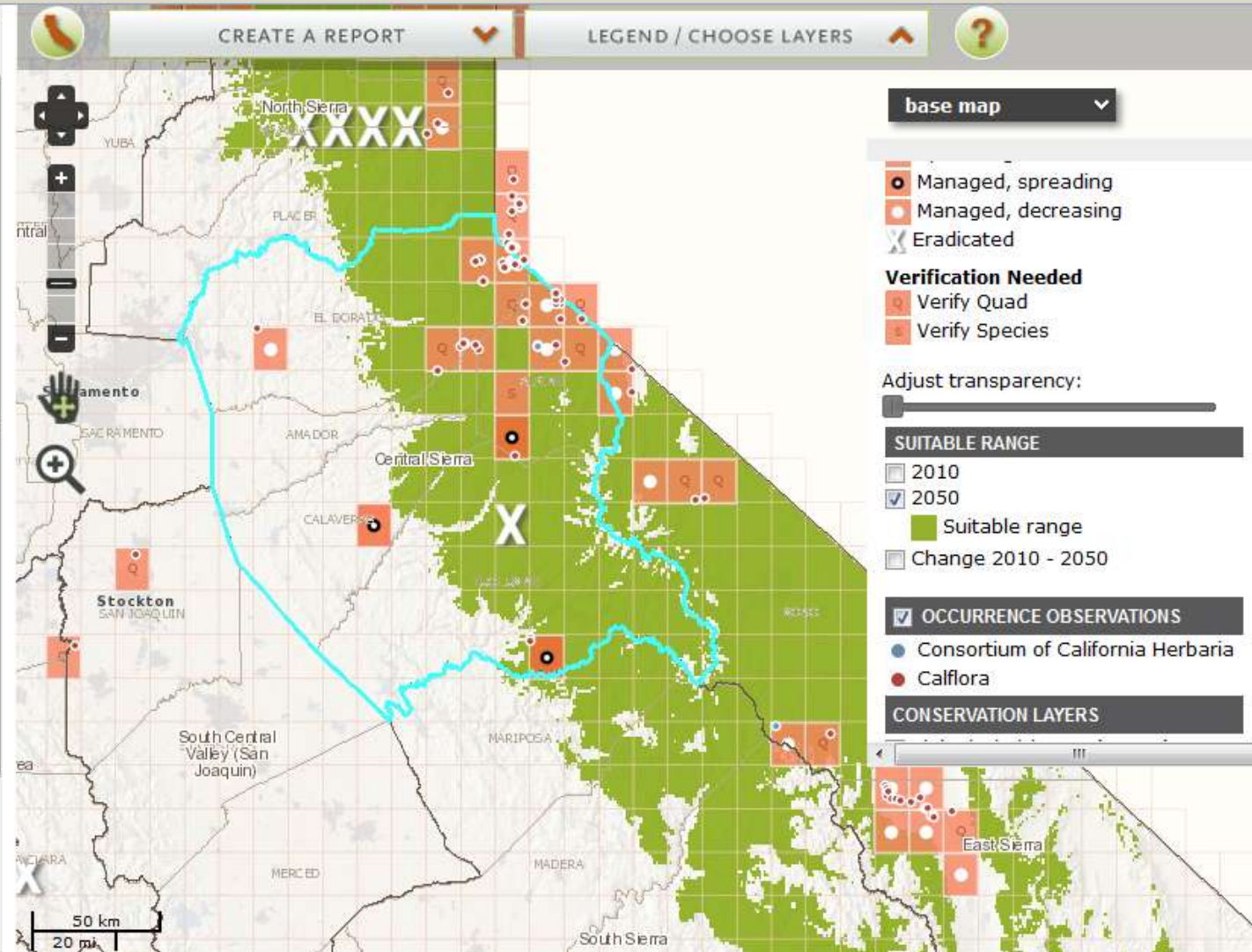
Photo © Regents of the University of California

***Cirsium arvense***  
**(Canada thistle)**

Cal-IPC Rating: **Moderate**  
Other Ratings: CDFA B, BAEDN

*species description*

Get Species Map Report



**base map**

- Managed, spreading
- Managed, decreasing
- X Eradicated

**Verification Needed**

- Verify Quad
- Verify Species

Adjust transparency:

**SUITABLE RANGE**

- 2010
- 2050
- Suitable range
- Change 2010 - 2050

**OCCURRENCE OBSERVATIONS**

- Consortium of California Herbaria
- Calflora

**CONSERVATION LAYERS**

Cal-IPC Draft Planning Regions
SELECT REGION

**Central Sierra Management Opportunities**

Surveillance: ? 35 species >>

# Eradication target 5: oblong spurge

basic
advanced

CREATE A REPORT
MANAGE MAP LAYERS
?

SEARCH BY COMMON NAME

SEARCH BY SCIENTIFIC NAME

suitable range map available



Photo © Regents of the University of California

***Euphorbia oblongata***  
(oblong spurge)

Cal-IPC Rating: Limited  
Other Ratings: CDFA B, BAEDN

*species description*

Get Species Map Report

Draft Regions

SELECT REGION

**Central Sierra Region (Draft)**

**Management Opportunities**

Surveillance: ? 30 species >>

Eradication: ? 7 species >>

Containment: ? 118 species >>

Managed: ? 38 species >>



base map

Medium

High

**Trend**

Spreading

Managed, spreading

Managed, decreasing

Eradicated

**Verification Needed**

Verify Quad

Verify Species

Adjust transparency:

**SUITABLE RANGE**

2010  2050

Low

Medium

High

Very High

OCCURRENCE OBSERVATIONS

Consortium of California Herbaria

Calflora

# Surveillance Targets

- 17 surveillance species identified for the Central Sierra
- Chose targets for public outreach and education
- Field crews and volunteers can be trained to watch for new species invading, using Calflora's Plant lists (website, .pdf or downloadable to a Smartphone)

← → C www.calflora.org/app/pl?vid=&list\_id=px147&bloom=t


### Central Sierra Region Surveillance Species

These species are top priority surveillance species for the 5 county (Alpine, Amador, Calaveras, Eldorado & Tuolumne) Central Sierra region.

17 Plants

**Acacia dealbata** *Silver wattle*


• Invasive non-native  
Tree, Shrub  
FABACEAE



© 2008 Neal Kramer © 2002 Dean Wm. Taylor

**Arctotheca calendula** *Cape weed*


• Invasive non-native  
Annual, Perennial herb  
ASTERACEAE



© 2009 Doreen L. Smith © 2001 CDFA

**Atriplex semibaccata** *Australian saltbush*

• Invasive non-native  
Perennial herb



# Surveillance Targets and Outreach


## 17 species, including:

- *Salvinia molesta* (giant salvinia)
- *Saponaria officinalis* (bouncingbet)
- ***Stipa miliacea* var. *miliacea* (*Piptatherum miliaceum*) (smilgrass)**
- *Carthamus lanatus* (woolly distaff thistle)
- *Saccharum ravennae* (ravennagrass)
- ***Nicotiana glauca* (tree tobacco)**
- ***Cynara cardunculus* (artichoke thistle)**
- *Cynoglossum officinale* (houndstongue)
- *Halogeton glomeratus* (halogeton)

# Regional Strategy

## Results:

Central Sierra group has applied for NFWF funding for eradication of 5 top priority species over 5 years



Easygrants ID: 33507  
National Fish and Wildlife Foundation – Pulling Together: Managing Invasives 2012, Full Proposal (A)  
Title: Priority Invasive Plant Eradication in the Central Sierra

**Grant Request Information**

**Title of Project**  
Priority Invasive Plant Eradication in the Central Sierra

<b>Total Amount Requested</b>	\$ 74,040.00
<b>Matching Contributions Proposed</b>	\$ 263,000.00
<b>Proposed Grant Period</b>	10/01/2012 - 09/30/2014

**Project Description**  
CWMAs in a 5-county central Sierra region have identified high-priority eradication targets. This project conducts eradication activities and shares a prioritization approach with other regions.

**Project Abstract**  
The Sierra Nevada region of California is experiencing increased invasive plant incursion. Through early detection

# CalWeedMapper

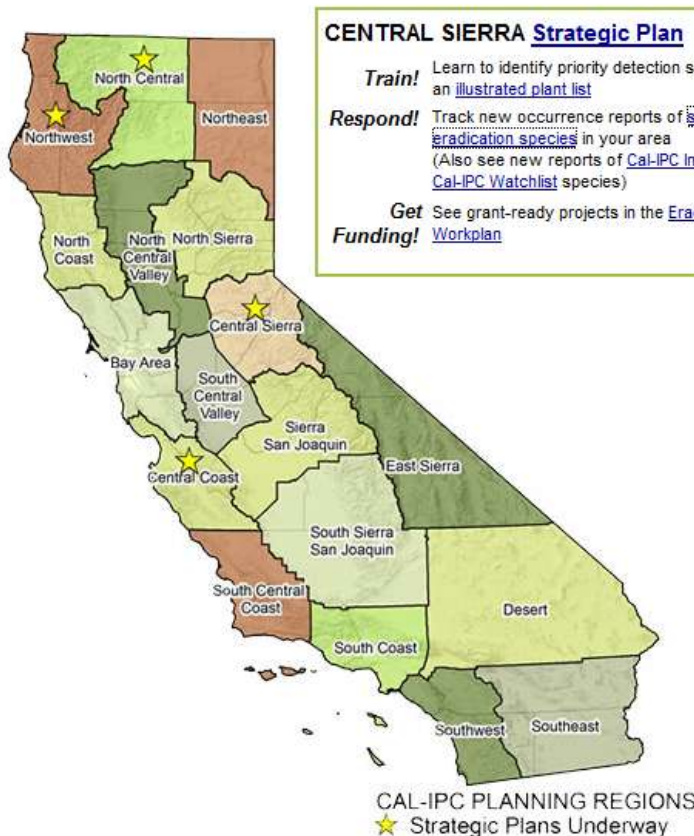
BETA

## Northwest

Del Norte, Humboldt and Trinity WMAs have identified 12 eradication and 17 surveillance targets. An eradication workplan is under construction and will be reviewed at upcoming December meeting. A presentation to learn about these species is under development for Humboldt County's general WMA meeting in the spring.

## Central Coast

Monterey, Santa Cruz and San Benito participants identified 8 eradication and 8 surveillance targets in a strategic plan. A presentation to learn about these species is under development for an upcoming joint Santa Cruz/Monterey WMA meeting. WMA chairs are coordinating directed searches/mapping to determine infestation sizes and location to finalize the eradication workplan. Monitor these and other **newly reported** occurrences in California.



## CENTRAL SIERRA Strategic Plan

- Train!** Learn to identify priority detection species using an [illustrated plant list](#)
- Respond!** Track new occurrence reports of [surveillance & eradication species](#) in your area (Also see new reports of [Cal-IPC Inventory](#) and [Cal-IPC Watchlist](#) species)
- Get Funding!** See grant-ready projects in the [Eradication Workplan](#)

## North Central

Siskiyou and Shasta WMAs have identified 9 eradication and 15 surveillance targets and have a draft strategic plan. Participants will use an upcoming WMA meeting to review and update the mapping of the eradication species. An eradication workplan is under construction and will be reviewed at upcoming December meeting.

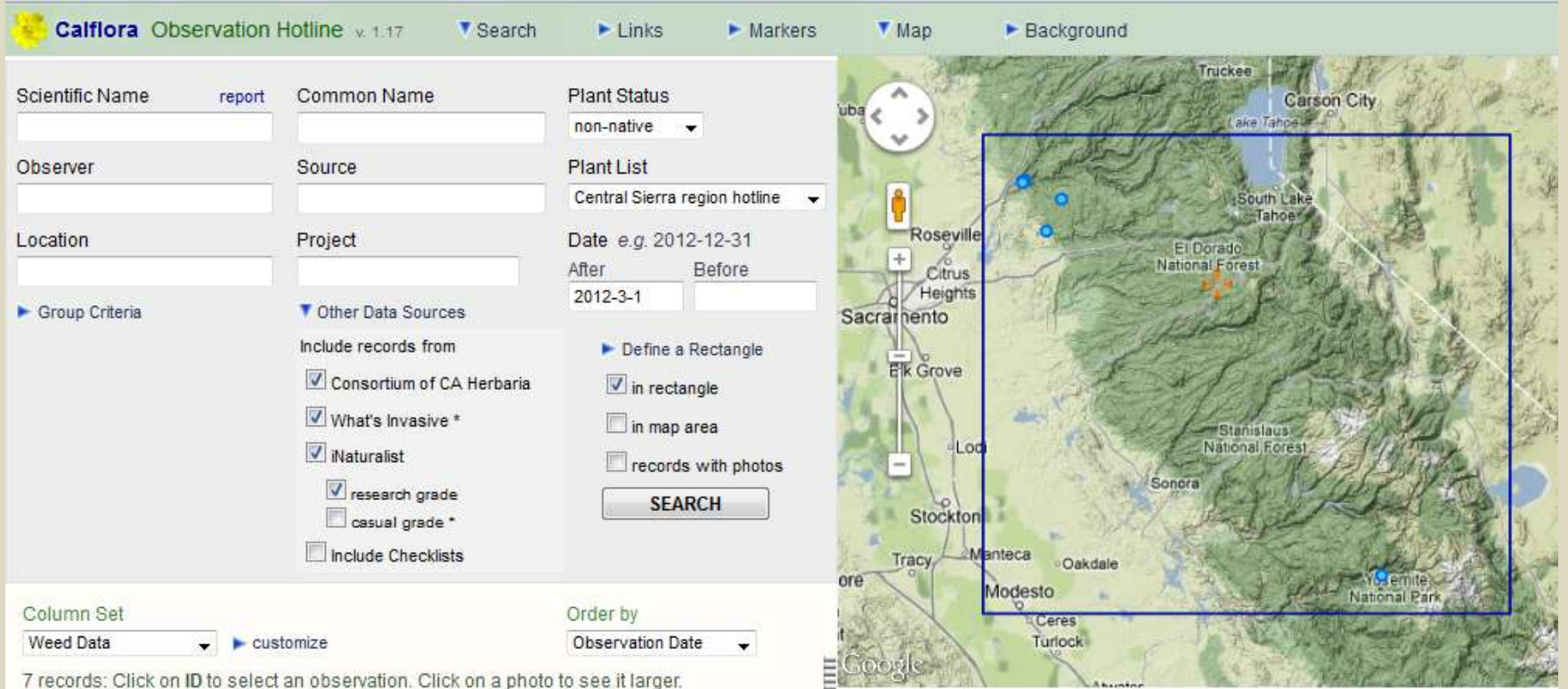
## Central Sierra

Alpine, Amador, Calaveras, El Dorado, and Tuolumne counties prioritized 10 eradication and 15 surveillance targets. This strategy has been used in a Pulling Together grant proposal to NFWF from which we'll hear results on Nov 30. Near term goal is to review/update eradication species in CalWeedMapper by Nov 15 and submit new occurrences to California, if found. Monitor these and other **newly reported** occurrences in California.



# Watch for new detections and coordinated rapid response!

[Central Sierra's Weed Observation Hotline](#) displays surveillance and eradication occurrences submitted recently in our region...



ID	Plant	Photo	Observer	Source	Observation Date	Phenology	InfestedArea	GrossArea	Cover	Distribution	National Ownership
cbo7768	<a href="#">Hypericum perforatum</a> Klamathweed, common St. Johnswort		Takagi & Prince		2012-06-30	Flowering	0.1 Square Feet		0 - 1%		* National Park Service

# Other Regions

Other regions using this process:

- Monterey - San Benito – Santa Cruz Counties
- Shasta & Siskiyou Counties
- Del Norte – Humboldt – Trinity Counties
- Cache Creek Watershed (Yolo/Lake Counties)
- State Parks Santa Cruz Mountain Sector
- More to come in 2013!



# Acknowledgments

Thanks to all of the land managers who have contributed their time and knowledge.

Funding provided by:

- ❖ US Forest Service, State & Private Forestry
- ❖ California Dept. of Food and Agriculture
- ❖ California Landscape Conservation Cooperative
- ❖ Richard and Rhoda Goldman Fund
- ❖ USDA Forest Service Special Technology Development Program
- ❖ National Forest Foundation
- ❖ Shasta-Trinity National Forest

*Cal-IPC is an equal-opportunity provider.*