

# **San Diego County Weed Management Area**

**Lead: County of San Diego,  
Department of Agriculture Weights & Measures (AWM)**

**Coordinator: UC Co-operative Extension, Chris  
McDonald**

**Jason Giessow, Dendra Inc:  
jgiessow@cox.net**

**Mark Martinez, County of San Diego AWM:  
Mark.Martinez@sdcounty.ca.gov**

**Chris McDonald, UC Cooperative Extension  
cjmcdonald@ucanr.edu**

# San Diego WMA

- Annual Summer Symposium
- Quarterly steering committee meetings (20 attendees)
- WEB site: [SDWMA.org](http://SDWMA.org)
- County AWM is lead on large regional EDRR Program
- CDFA WMA Grants:
  - Spotted knapweed and barbed goatgrass
  - Volutaria (desert knapweed)
  - Ward's weed

**Annual Summer Symposium, ave 100-120 attendees,  
15 years**

**All Day: eight talks, networking, lunch**

**Typical topics:**

**Invasives work updates, how to report (County Ag,  
iNaturalist, CalFlora), how to ID, bio control, chemical  
control, funding opportunities, open discussion**



# WEB Site:

## Meeting registration, presentations, invasives ID sheets, Invasive Plant Reporting Form

**Agriculture, Weights and Measures**

Google Custom Search

MENU



### San Diego Weed Management Area (SDWMA)

**NEW! Registration is open** for the annual **San Diego Weed Management Area Summer Symposium**. The event will take place on **June 6th, 2019** at **Sweetwater Summit Regional Park**. The seminar is **FREE** and open to the public, with an emphasis on those who manage land. Please [see this link](#) for more information and registration.

**NEW!** The County of **San Diego Pesticide Regulation Program** will be sponsoring a pesticide container recycling event on **Saturday, June 8th, 2019**, at **EDCO Recycling in San Marcos**. Please see [this flyer](#) for more information.

**NEW!** The **San Diego Weed Management Area** will be holding its **annual meeting** on **June 6th, 2019** at **Sweetwater Summit Regional Park**. Please see [this flyer](#) for more information.

The San Diego Weed Management Area (SDWMA) is a group of agencies, organizations and individuals working together to control selected invasive plant species within San Diego County. Collaboration of the members within the SDWMA has created and continues to generate the success of this organization.

The SDWMA holds quarterly meetings for stakeholders to coordinate efforts, and an annual meeting for networking, educating members and organizing future activities. All interested persons are welcome to attend annual meetings, where they will have the opportunity to listen to stakeholders present their program's accomplishments and/or projected work. While there are a select group of invasive species targeted for mapping and control efforts within the SDWMA group, many stakeholders also work on additional weed species within their project areas, which they may also choose to discuss.

Opportunities arise for members of the SDWMA to develop positive relations with San Diego county citizens as







## NOTICE



**CLICK HERE  
TO REPORT  
INVASIVE  
PLANTS**

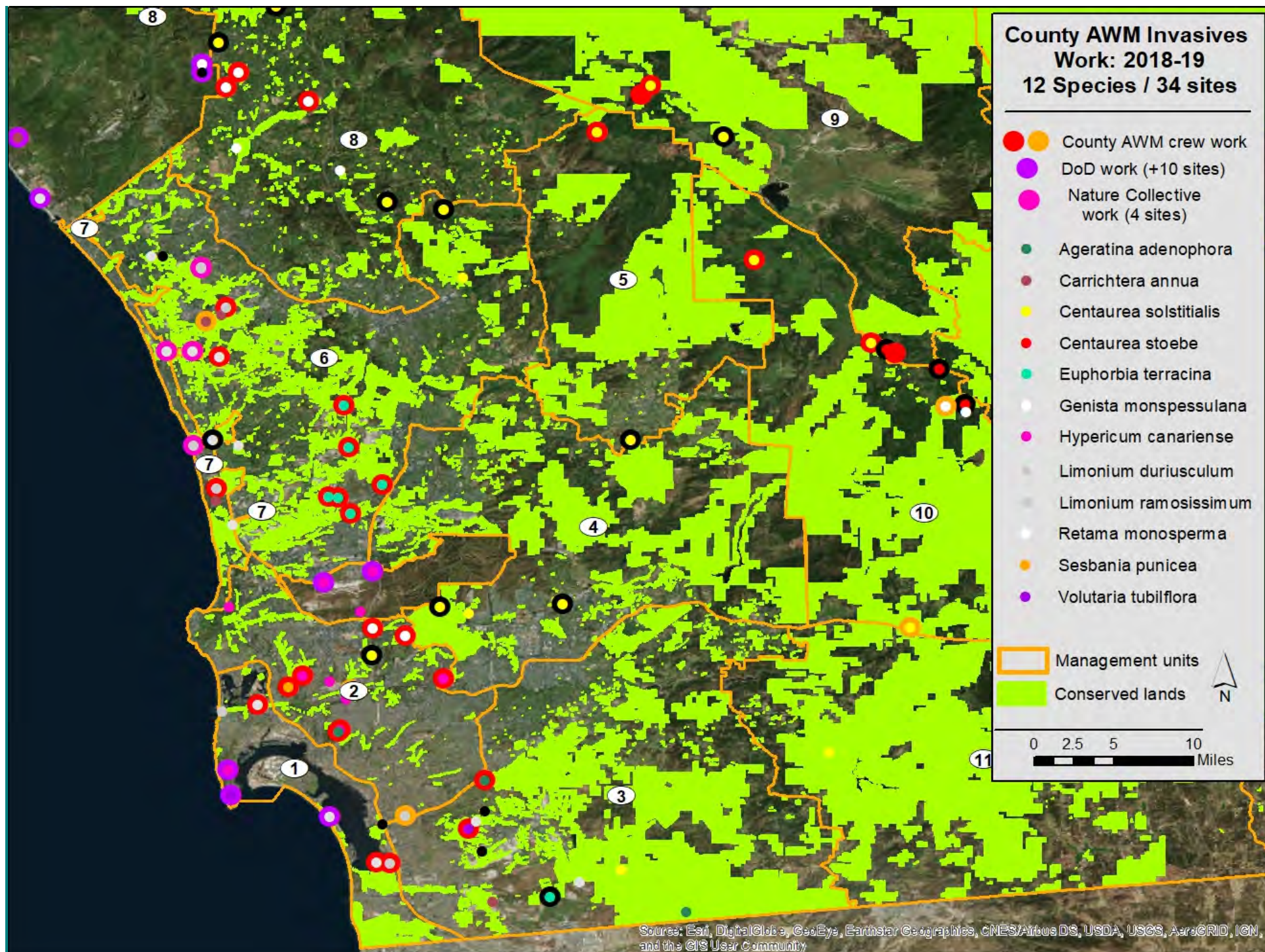
### Popular Services

- Jobs
- Rec

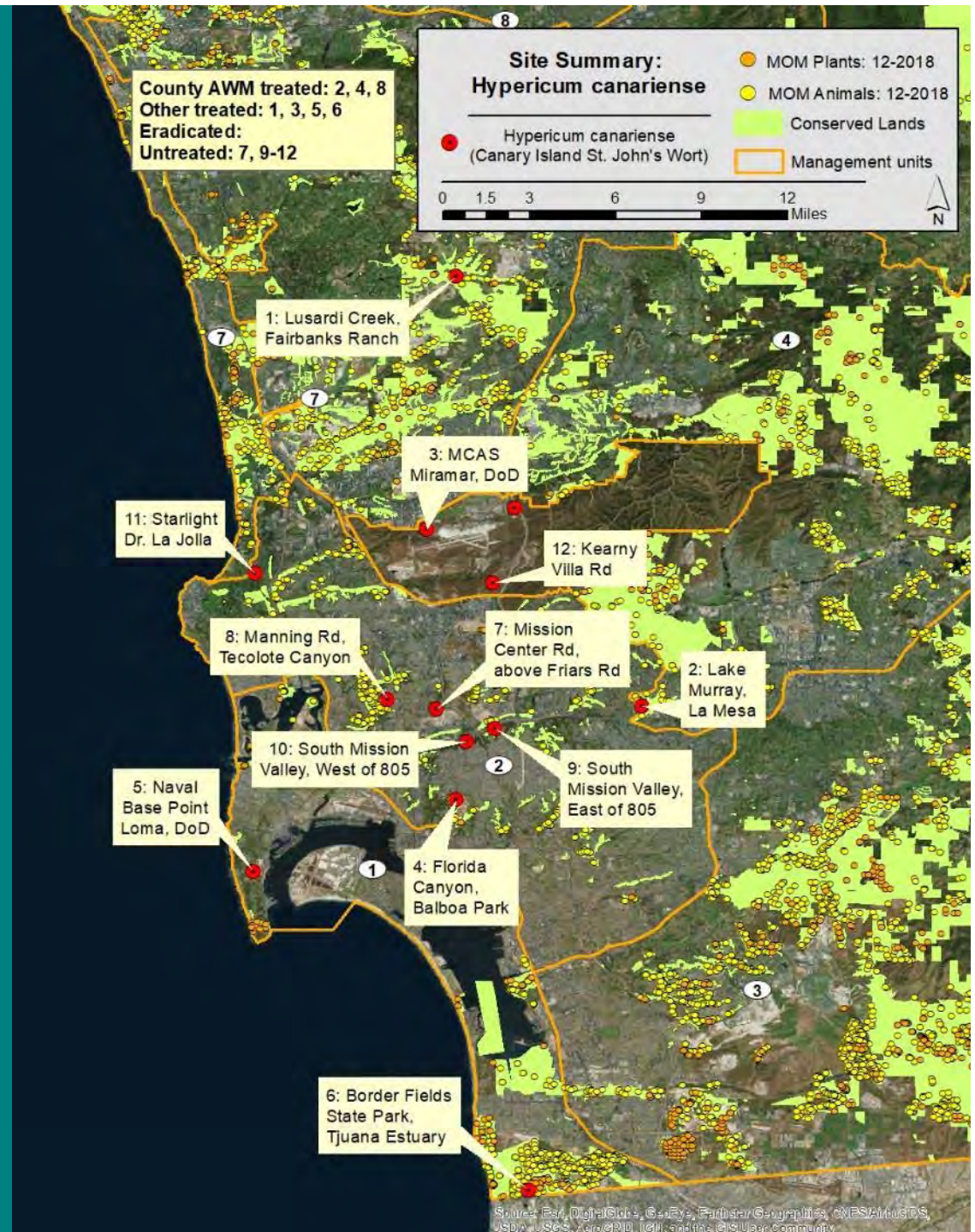
## **County AWM EDRR Program**

- **Regional EDRR Program**
- **County AWM has a history of working on 3 of the species**
- **Now 12 species worked on with regional NCCP funding support (SANDAG, Transnet funding)**
- **Based on a plan with impact, mapping data and feasibility of control assessed**













Foliage bright green



Foliage going dormant



**Invasive Non-Native:**  
**Canary Island St. John's Wort**  
*(Hypericum canariense)*

**Description:** multi-stemmed perennial rhizomatous shrub up to 3m ht; leaves opposite, waxy, lanceolate and bright green; terminal clusters of yellow flowers; leaves yellow early in season and generally drop in summer; capsule fruits dry and dehisce tiny seeds.

**Ecology:** disturbed areas, coastal sage scrub and grassland habitats. Can form dense stands that exclude native species.



All photos Jason Giessow

Report sightings to: [edrrsd@gmail.com](mailto:edrrsd@gmail.com) and database at [www.Calflora.org](http://www.Calflora.org)

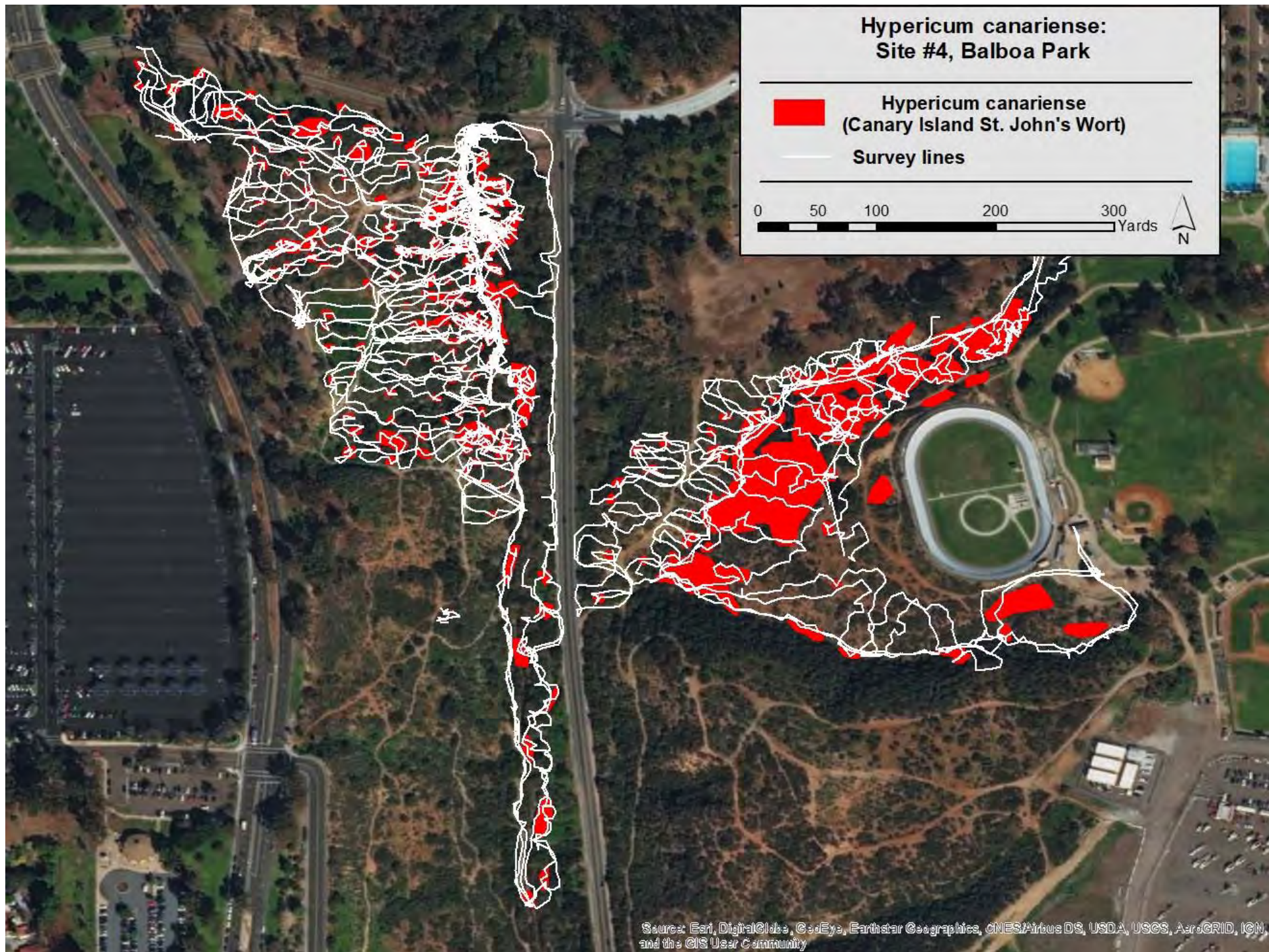




*Balboa Park*









# *Euphorbia terracina*: Carnation spurge

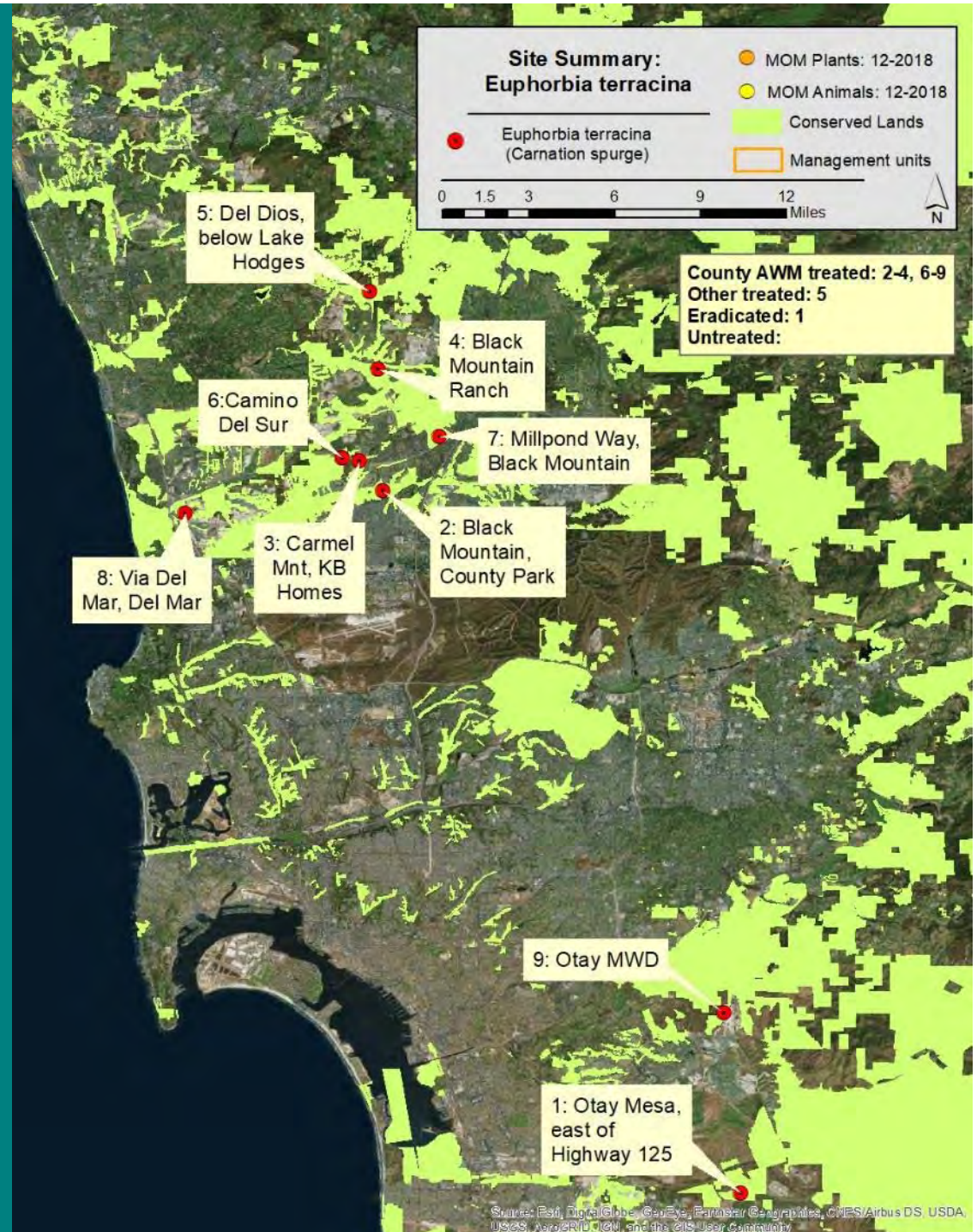
9 sites (with several  
sub-sites):

7 under treatment,  
1 tracked, 1 eradicated

2 iNaturalist reports (8,9)

Additional sites are being  
found in Black Mountain  
area- but seems restricted  
enough to work on. Difficult  
seedbank.....

Eradication still achievable.







**Invasive Non-Native:**  
**Carnation spurge**  
*(Euphorbia terracina)*

**Description:** annual or short lived perennial; upright stems several to numerous from base, up to 120cm ht, often reddish; sessile leaves 2.5-6cm, linear to narrowly lanceolate blades, leaf tip acute; at top of stem broader and yellowish green; inflorescence open, inconspicuous greenish or yellowish flowers at tips with ovary forming deeply lobed 3 sided capsule (3-5 mm long and 4-5 mm wide); milky sap (eye and skin irritant)

**Ecology:** disturbed areas, coastal sage scrub, grasslands, chaparral edges, salt marsh, riparian, oak woodlands; shade or sun; massive germination after fire; toxic sap

**Similar to (see back):** Other weedy spurge species



All photos Jason Giessow

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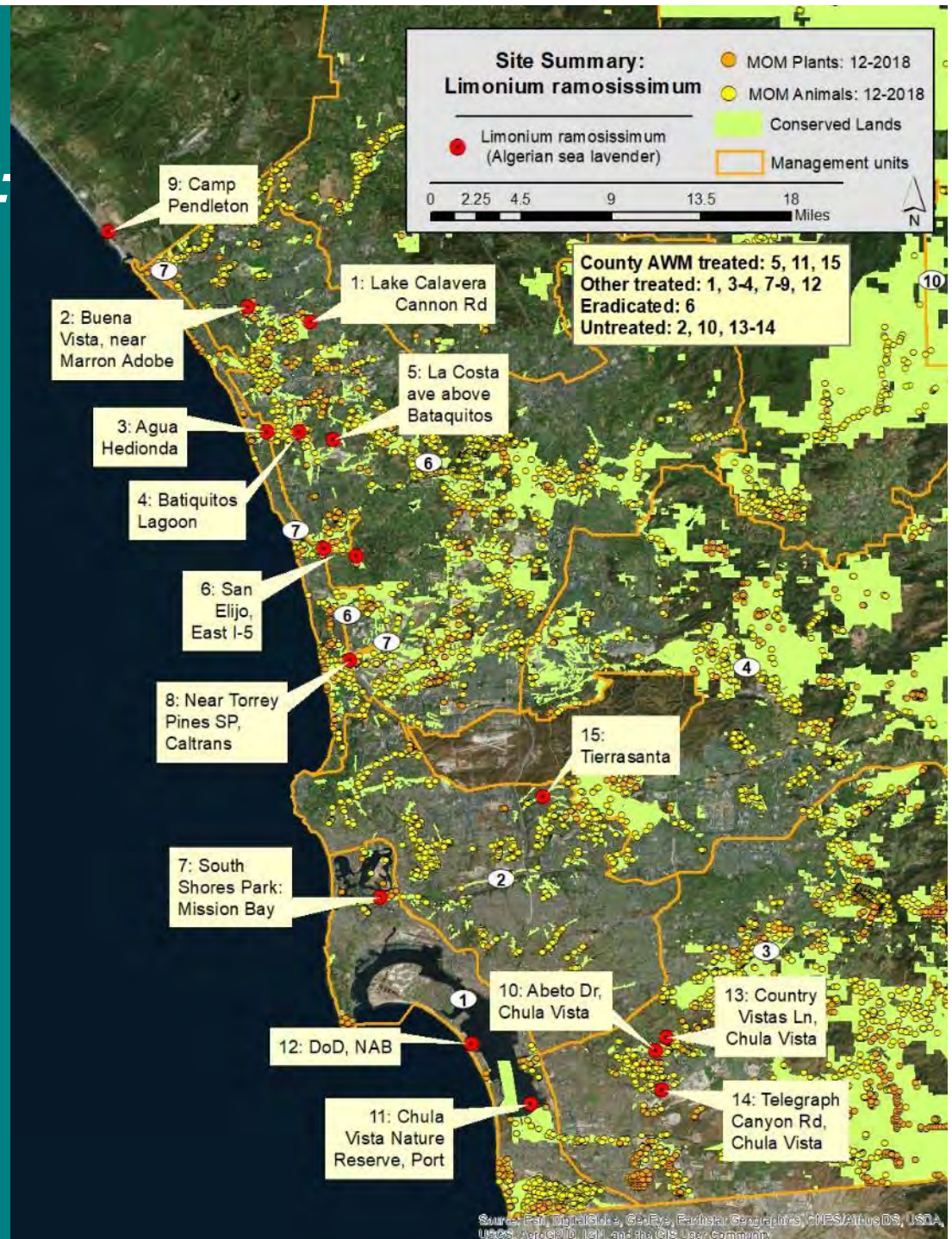
# *Limonium ramosissimum*: Algerian sea lavender

15 sites:

3 under treatment, 7 tracked  
1 eradicated,  
4 untreated

Control feasible, but upland  
sources likely (sources found  
on four watersheds).

Eradication may not be  
realistic on all watersheds







**Invasive Non-Native:**  
**Algerian Sea Lavender**  
*(Limonium ramosissimum)*

**Description:** perennial herb 6-12" (20-50 cm) tall in flower, lower leaves in dense rosettes 1-4" (3-10 cm) long,  $\frac{1}{4}$ – $\frac{3}{4}$ " (7-20 mm) wide, spoon shaped, tip acute to rounded. Flower: delicate multi-branched tight clusters. Flower: calyx (outer flower part) white <  $\frac{1}{4}$ " (4-6mm), corolla (inner flower part) pale pink to purple <  $\frac{1}{4}$ " (5-7 mm).

**Ecology:** salt-tolerant, coastal salt marsh as well as riparian habitat (even grassland & disturbed areas).

**Similar to (see back):** European sea lavender (non-native) has rounded leaves and flowers are evenly spaced. Perez's sea lavender (common non-native used in landscaping) is a larger species with wider, longer, bright green leaves. California sea lavender (native) has longer leaves and stouter taproot.



Report sightings to: [eddrsd@gmail.com](mailto:eddrsd@gmail.com) and database at [www.Calflora.org](http://www.Calflora.org)



Cal-IPC





***Fall 2015***

***Limonium ramosissimum:***  
**Algerian sea lavender**

**CVNR (San Diego Bay)**

***February 2016***





## **CDFA WMA Grants: AB2470**

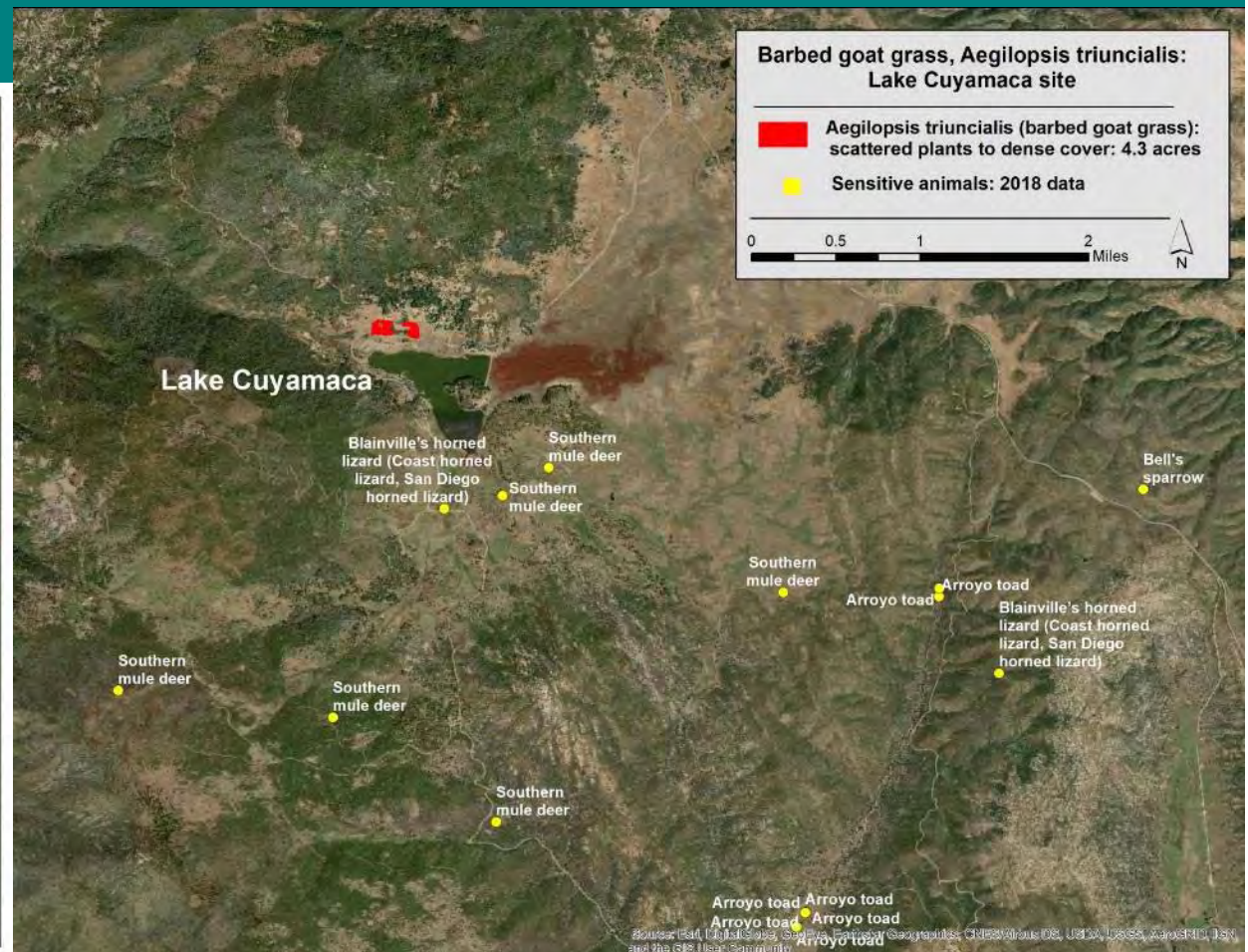
**San Diego County was awarded 3 grants**

- 1) Spotted knapweed and barbed goatgrass**
- 2) Volutaria (desert knapweed)**
- 3) Ward's weed**



# Barbed goatgrass

Site	Size of population	Treated in:	Treated by:	Funding status
Fallbrook NWS, DoD	2.0 ac	Started in 2011, eradicated. Monitoring is ongoing	DoD	Funded: DoD
Lake Cuyamaca	4.2 ac	Untreated	-	CDFA WMA Grant







Joe DiTomaso



Joe DiTomaso



Joe DiTomaso



**Invasive Non-Native:**  
**Barbed goat grass**  
*(Aegilops triuncialis)*

**Description:** annual grass, 17-45cm ht, leaf blade 1.5-7cm, 2-3mm wide; inflorescence 2-5.5c, spike like; fertile spikelet 2-3 awned, distal spikelet 3-awned or 1-awned with 2 lateral teeth.

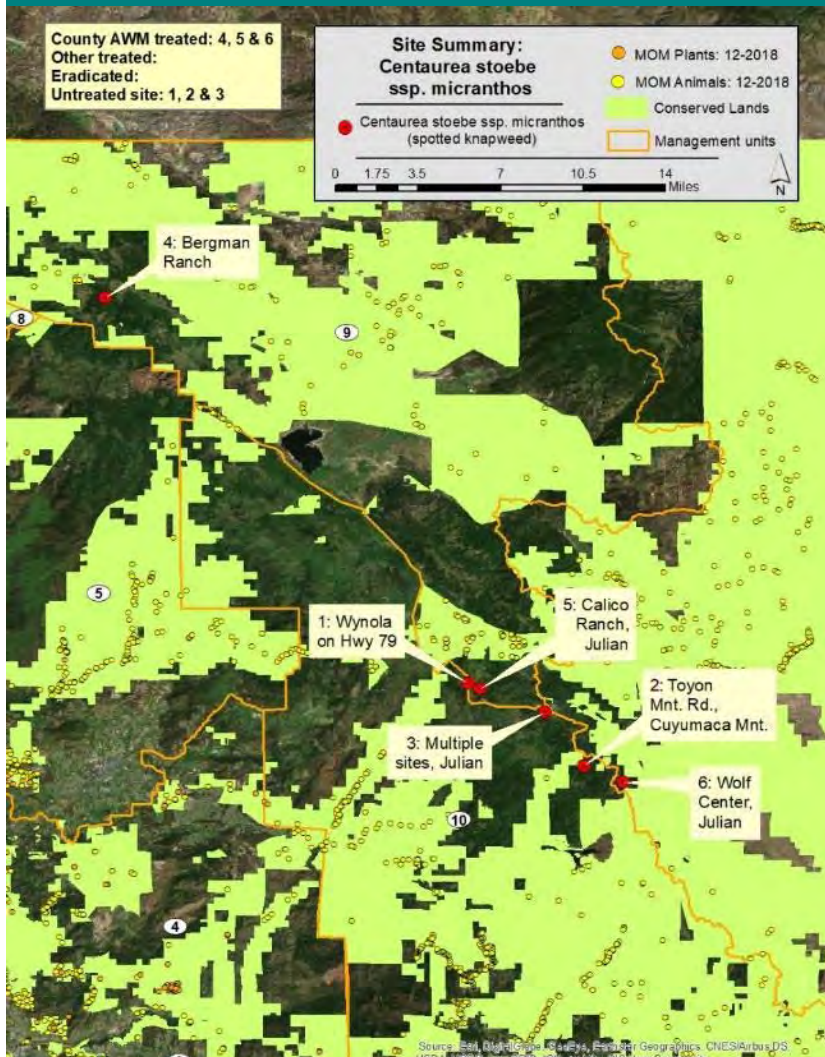
**Ecology:** rangelands, grasslands, and oak woodlands. Cattle/rangelands are areas of greatest risk for introduction/invasion.

**Similar to (see back):** Three-awned goat grass *Aegilops neglecta* (non-native)



# Spotted knapweed

Site	Size of population	Treated in:	Treated by:	Funding status
Bergman Ranch	4.2 acres	2014-2019	County AWM	CDFA WMA Grant
Calico Ranch	0.7 acres	2018-2019	County AWM	CDFA WMA Grant
Wolf Center	3.0 acres	2015-2019	County AWM	CDFA WMA Grant



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**All known North America sites of *Volutaria tubuliflora* (Desert knapweed)**

● *Volutaria tubuliflora* (Desert knapweed)

0 5 10 20 30 40 Miles

**County of Orange site:**  
Not part of project

**Borrego Springs site:**  
Part of project

**Chula Vista site:**  
Part of project

**Eradicated DoD site**

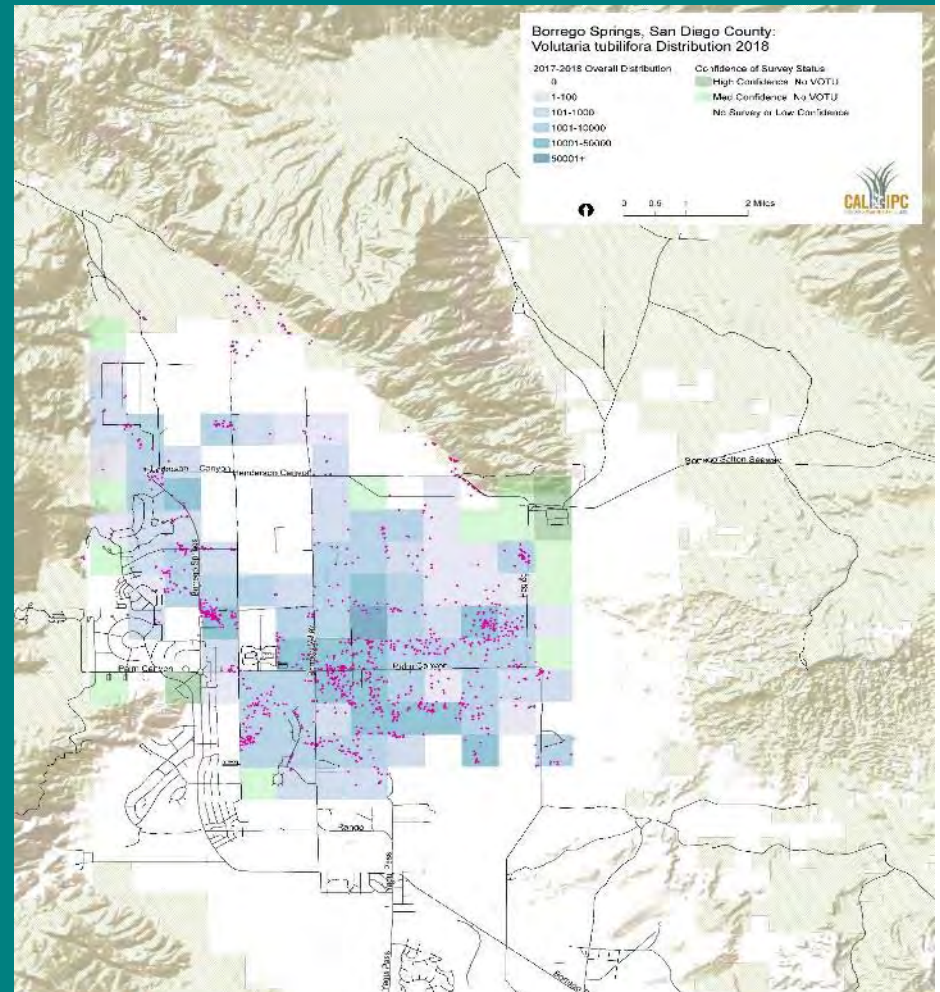
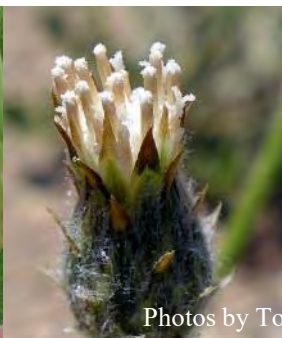






Photo by Ron Vanderhoff



Photos by Tom Chester



Photo by Jason Giessow

## Invasive Non-Native: Volutaria knapweed (*Volutaria tubuliflora*)

**Description:** **Stem:** < 15 dm. **Leaf:** 1-2 pinnately lobed or divided, lobes +/- dentate, lobes angled forward. **Inflorescence:** heads solitary or in small clusters; phyllaries with wide flat flexible spine tips 1.5--2 mm, inner with membranous, spineless tips. **Flower:** corolla of sterile flower +/- 10 mm; corolla of fertile flower 5.5--6 mm, +/- white. **Fruit:** 3--3.5 mm, pale gray-brown, ascending-hairy, faces not pitted.

**Ecology:** Disturbed areas, non-native grassland, into coastal sage scrub

**Similar to (see back):** *Centaurea mellitensis* (tocalote), *Centaurea maculosa* (spotted knapweed)



Photo by Jason Giessow



Photos by Ron Vanderhoff

Report sightings to: [edrrsd@gmail.com](mailto:edrrsd@gmail.com) and database at [www.Calflora.org](http://www.Calflora.org)



# Ward's weed

Site	Size of population	Treated in	Treated by	Funding status
DoD	2.0 ac	2012-ongoing	DoD	Funded: DoD
La Costa Greens	9.2 ac	2012-ongoing	CNLM and County AWM	Funded: CNLM and SANDAG
Bressi Ranch	113 ac	Untreated	-	Part: CDFA WMA
Crest Canyon, Del Mar	0.4 ac	Spring 2019	County AWM	Funded: SANDAG
Robinhood Ridge, Otay	0.4 ac	Spring 2019	City of San Diego	Funded: City of San Diego





# Invasive Species Alert

**Common name:** Ward's weed

**Scientific name:** *Carrichtera annua* (L.) DC.

**Origin:**

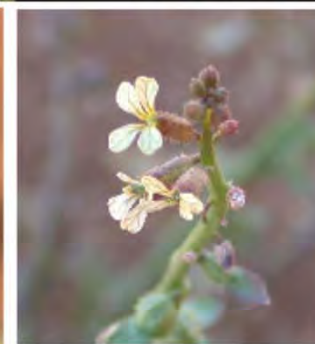
- Mediterranean region and Western Asia (native), invasive in Australia

**Identifying Factors:**

- Small bristly-haired plant, 5-40 cm
- Leaves: < 10 cm and deeply divided into multiple narrow lobes
- Flowers: pale yellow, 4 petals, 8-9 mm with purple veins
- Fruit: 6-8 mm in drooping position, topped with spoon-shaped petals



Photo: David Albrecht



Above Photos: Bob & Fiona Richardson

**Dispersal:**

- Seeds dispersed via foraging animals and ants over short distances
- Long distance dispersal on vehicles, clothing, large animals, and agriculture

**Impacts:**

- Replaces perennial native species in some environments

**Looks Like:**

- Some resemblance to western tansymustard

**Management:**

- If spotted please notify Sara Allen: [smallen@sanidiego.gov](mailto:smallen@sanidiego.gov) & Victor Nava: [Vnava@sanidiego.gov](mailto:Vnava@sanidiego.gov) to schedule treatment ASAP.

References:  
[https://keyserver.lucidcentral.org/weeds/data/media/Html/carrichtera\\_annua.htm](https://keyserver.lucidcentral.org/weeds/data/media/Html/carrichtera_annua.htm)  
<https://www.calflora.org>

The City of  
**SAN DIEGO**







