

**San Diego Regional Invasive Plant
Early Detection and Rapid Response
(EDRR) Program :
in Support of NCCP**

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NCCP Invasives work

1. 'NCCP' Invasives Plan completed Sep 2012: Report and PAFs at SDMMP.com
2. SANDAG/EMP contract awarded to San Diego AWM, work focused on EDRR.
3. Two year work plan developed based on plan: implementation & coordination started January 2015!
 - through 8 examples highlight: mapping/surveying
 - outreach to managers, biologists, etc.: weed ID sheets

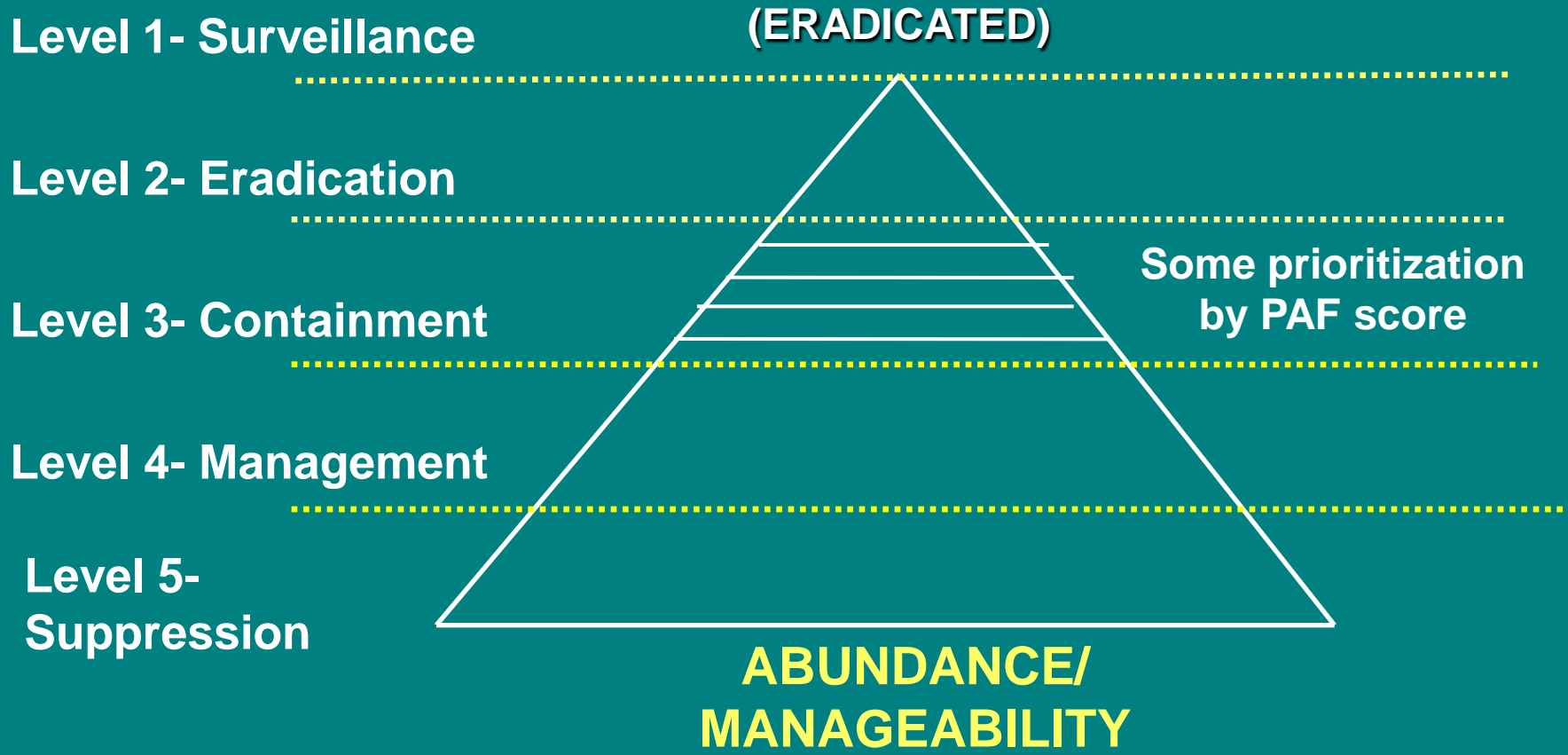
Regional Impact Assessments

Purpose: Assess severity of impacts and management feasibility of priority species at the regional level to establish management priorities

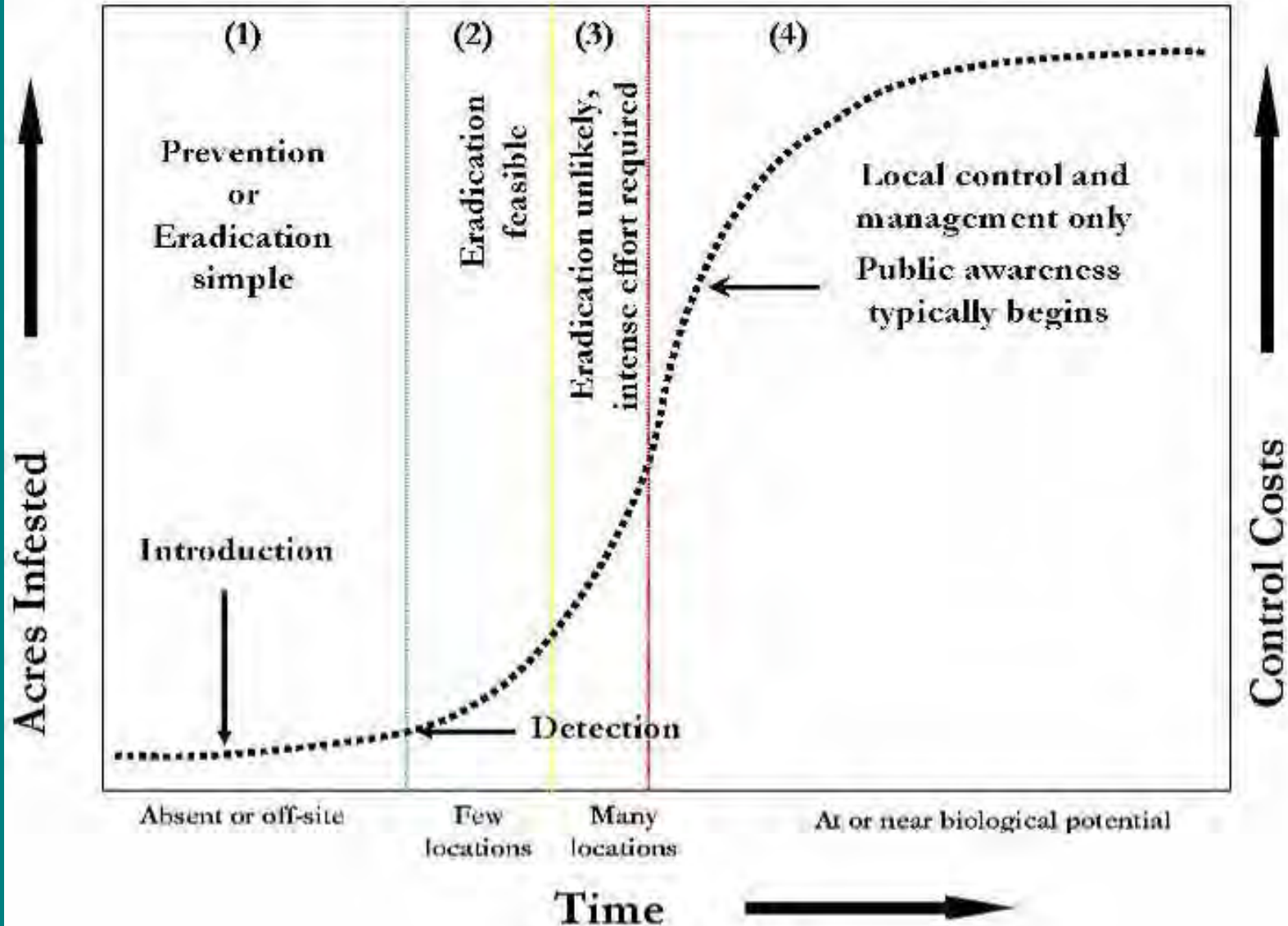
- Science-based Assessments
 - Plant Assessment Forms (PAFs)
 - Ecological impacts
 - Invasiveness
 - Distribution/abundance



Management Levels



Weed Increase Over Time and Control Potential



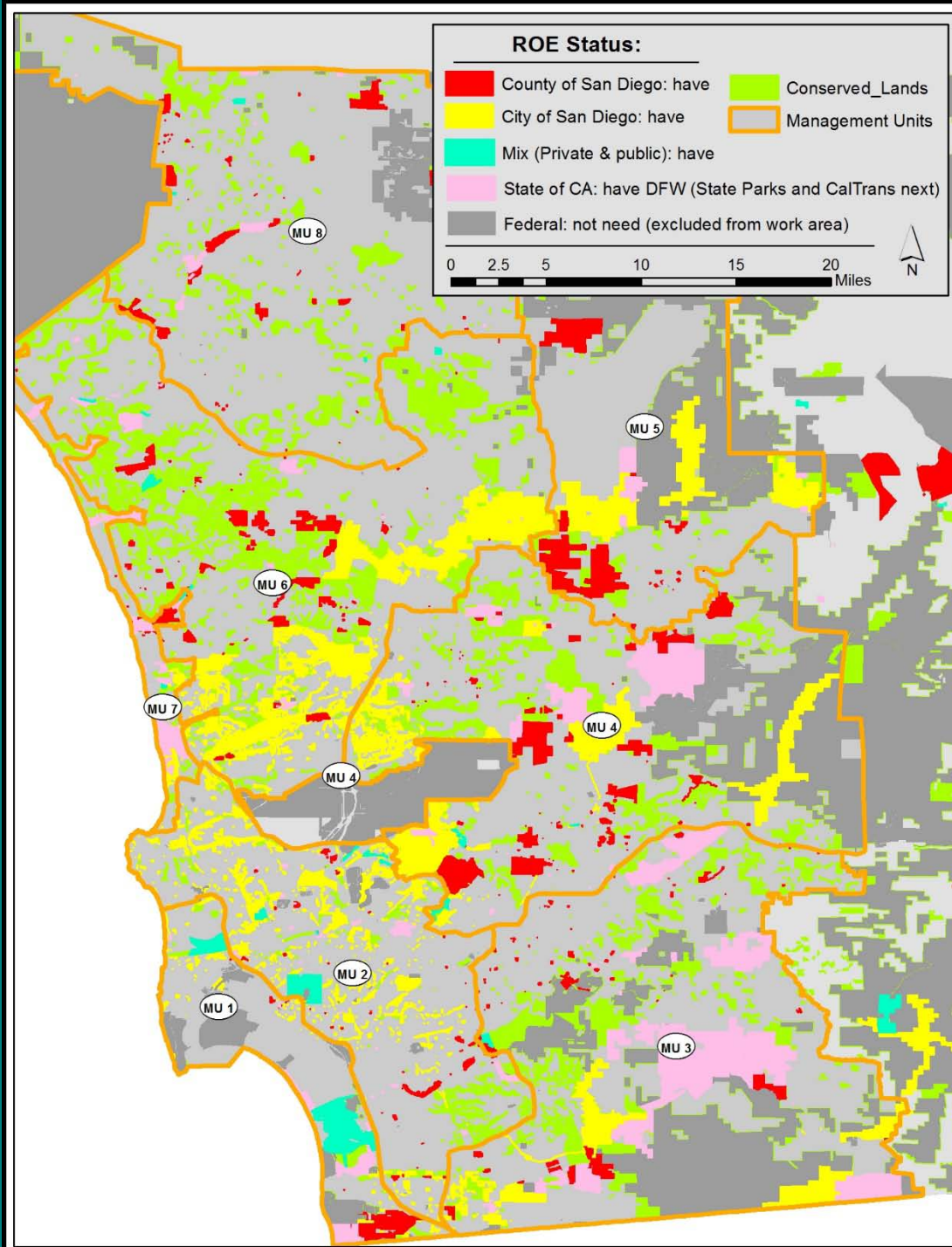
Goal:

- respond quickly

How?

Have standing
authorization: Right
of Entry Agreements

COMPLETED



Ageratina adenophora: Eupatory





Invasive Non-Native:
Crofton Weed, Eupatory
(Ageratina adenophora)

Description: perennial herb or subshrub, woody base, 2-5 ft (.6-1.5m) tall. Opposite leaves 1-4" (3-10cm). Stems: purple, glandular hairy. Flowers: composite, flower head all discoid flowers (no ray flowers) ¼" (6mm) across, clustered in groups, individual flowers 1/16-1/8" (<5mm) across, white or pink tinged.

Ecology: disturbed areas, wetland/riparian edges, canyons, hillsides.

Similar to: no common natives or non-natives. Mule-fat has discoid ray flowers, but thinner leaves.



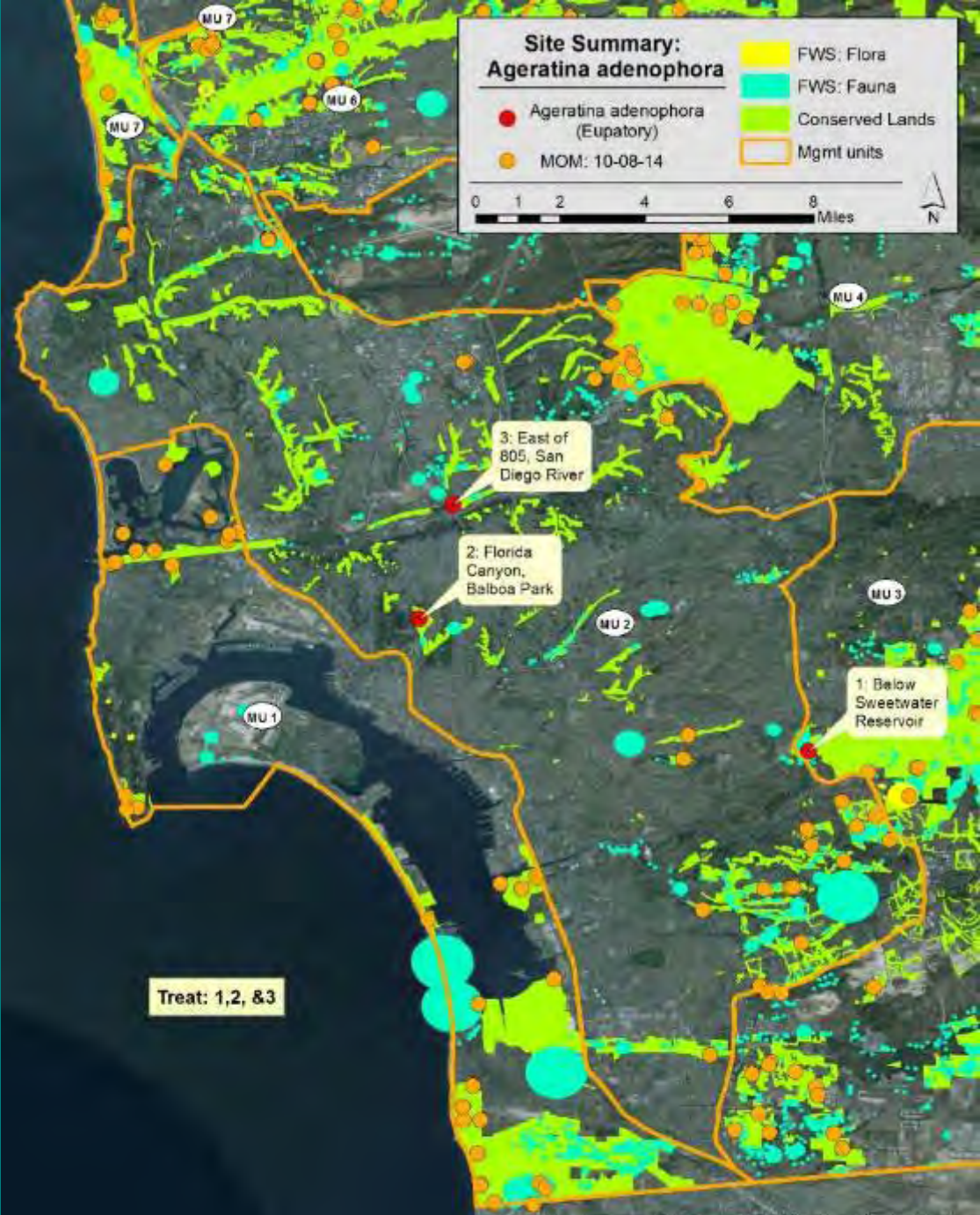
Photos © Joe DiTomaso



Report sightings to: edrrsd@gmail.com and database at www.Calflora.org



Cal-IPC



Source: San Diego State University, Center for Biological Research, 2015-2016
Map Coordinates: 32.858, -117.165, 32.858, -117.165, 32.858, -117.165, 32.858, -117.165

Ageratina adenophora: Eupatory

Site: #3, San Diego River: SDRF
0.2 acres treated 2015-3-10



Ageratina adenophora
(Eupatory)



Conserved Lands



Parcels

0 0.05 0.1 Miles



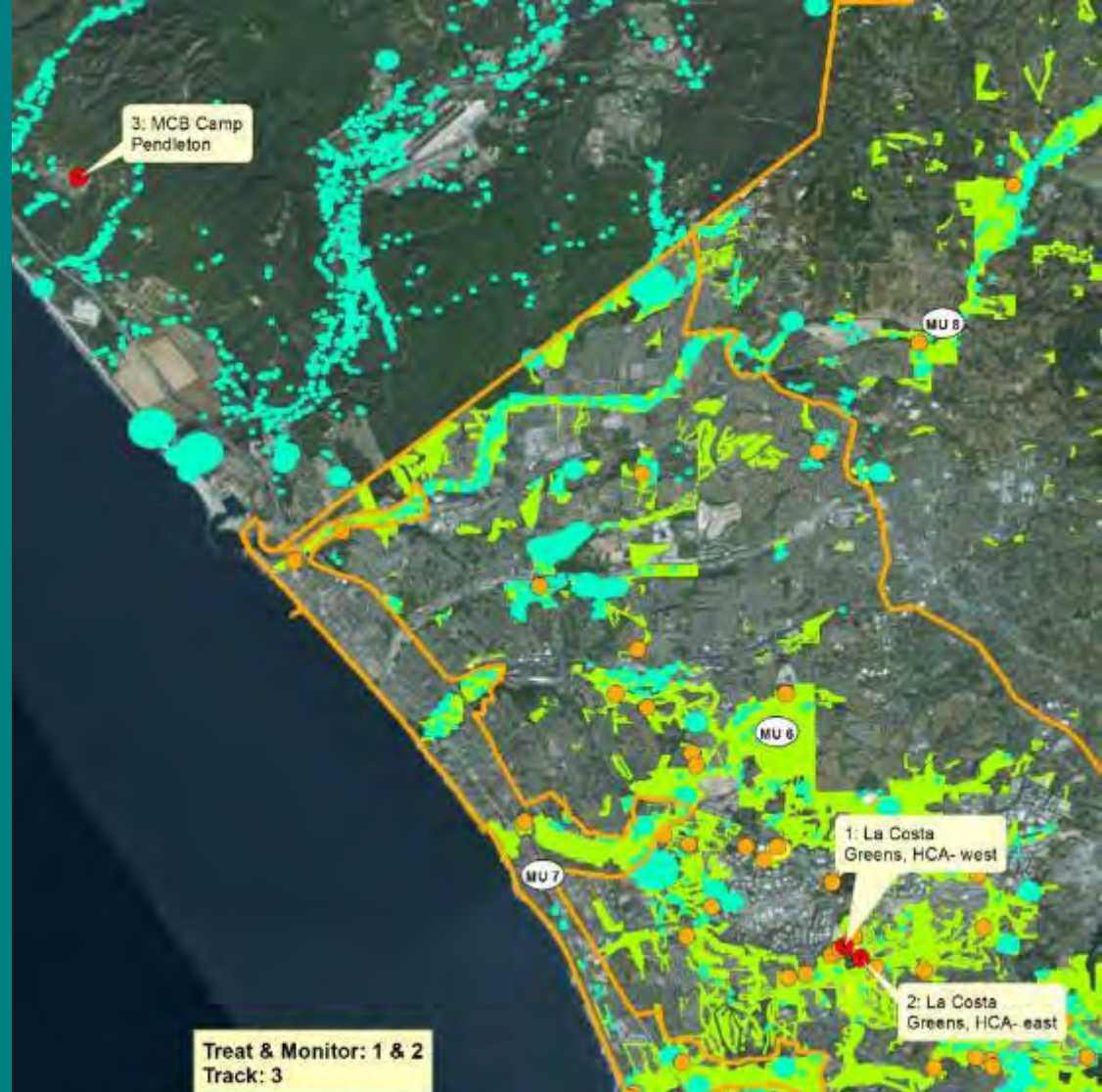
This area not Treated:
Caltrans and Fenton

SDRF

43805217

Carrichtera annua:
Ward's weed





Site Summary:
Carrichtera annua

● Carrichtera annua (Ward's weed)	■ FWS: Flora
● MOM: 10-08-14	■ FWS: Fauna
	■ Conserved Lands
	■ Mgmt units

0 0.75 1.5 3 4.5 6 Miles

Map, DigitalGlobe, GeoEye, Earthstar (Earthstar), CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, Esri, DeLorme, and the OpenStreetMap community.

**Site: #1 & 2, La Costa Greens, west & east
Carrichtera annua**



Carrichtera annua
(Ward's weed)



MOM: 10-08-14

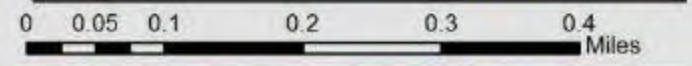
FWS: Flora

FWS: Fauna

Conserved Lands

Parcels

Mgmt Unit



Treat: Site 1, La Costa Greens, West

Treat: Site 2, La Costa Greens, East







Euphorbia terracina: Carnation spurge





Accession Detail Results

UCR is the home institution for this record

Please cite data retrieved from this page: Data provided by the participants of the Consortium of California Herbaria (ucjeps.berkeley.edu/consortium/; Tue Aug 25 21:10:05 2015).

Records are made available under the [CCH Data Use Terms](#).

Specimen number	UCR246512
Determination	<i>Euphorbia terracina</i> <small>More information: Jepson Online Interchange</small>
Collector, number, date	Fred M. Roberts, 7164, Sep 29 2009
County	San Diego
Locality	Upper Deer Canyon drainage between Carmel Mountain Road and Abing Avenue, c. 100 m north of SR56 and 4.0 km southwest of the summit of Black Mountain. Square M9
Elevation	122 m
Habitat	Shallow ravine on loamy sand soil in annual grassland with scattered shrubs
Coordinates	32.95583 -117.14556 BerkeleyMapper [or without layers, here]
Datum	Not recorded; ER = 1000 m
Coordinate source	Collector GPS
Voucher information	<i>associated species</i> Assoc. with <i>Avena</i> , <i>Bromus diandrus</i> , <i>Baccharis sarothroides</i> , <i>Heterotheca grandiflora</i> .

Annotations and/or curatorial actions
Euphorbia nutans
Euphorbia terracina Steve Boyd May 2014

Notes
 USGS quad: Del Mar 7.5' Q.; Erect herb, stems 0.8 m tall, flowers yellow. Locally common.;

Comment
[Read comments](#)
[Help](#)

Related searches:

1. taxon=*Euphorbia terracina*
2. county=San Diego; taxon=*Euphorbia terracina*
3. county=San Diego; collector=Roberts
4. collector=Roberts; taxon=*Euphorbia terracina*
5. collector=Roberts; number=7164
6. collector=Roberts; number=7164; include nearby numbers
7. date=Sep 29 2009; collector=Roberts
8. date=Sep 29 2009; county=San Diego





Euphorbia terracina survey

- Invasive non-native plant
- Euphorbia terracina
- Camation Spurge
- Surveyed
- City SD
- County SD



1: Camino Del Sur

2: Carmel Mt, KB Homes



3: Black Mountain, SD County Park

Survey this area

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, ICG, swisstopo, and the GIS User Community, Esri, HERE, DeLorme, Mapbox, and OpenStreetMap contributors



KB Home: Sea Cliff Parcels

-  Invasive non-native plant
Euphorbia terracina
Carnation Spurge
-  Conserved Lands

0 0.1 0.2 Miles



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNR Aero/Imagery Services, USDA, USGS, AeroGRID, IGN, ICF, Swiremap, and the GIS User Community. Esri, HERE, DeLorme, Mapbox, and the GIS User Community. Esri, HERE, DeLorme, Mapbox, and the GIS User Community. Esri, HERE, DeLorme, Mapbox, and the GIS User Community.

Invasive Non-Native:
French Broom
(*Genista monspessulana*)

Description: large, evergreen, woody shrub up to 9 feet (3m) tall. Leaves: small <math>< \frac{1}{2}</math> (1cm), compound leaflets in groups of three. Flower: small, <math>< \frac{1}{4}</math> (6mm), yellow, 1-2 per axil.

Ecology: occurs in a variety of habitats from disturbed to undisturbed areas, coastal scrub, oak woodlands, riparian corridors and open forests.

Similar to (see back): Spanish broom (non-native) large shrub with deciduous leaves and 1" (3cm) yellow flowers. Scotch broom (non-native) large shrub with deciduous leaves and 1" (3cm) yellow flowers. Deerweed (native) short-lived perennial <math>< 2</math> ft (.6m) tall with smaller yellow-orange-red flowers.



All Photos © Joe DiTomaso

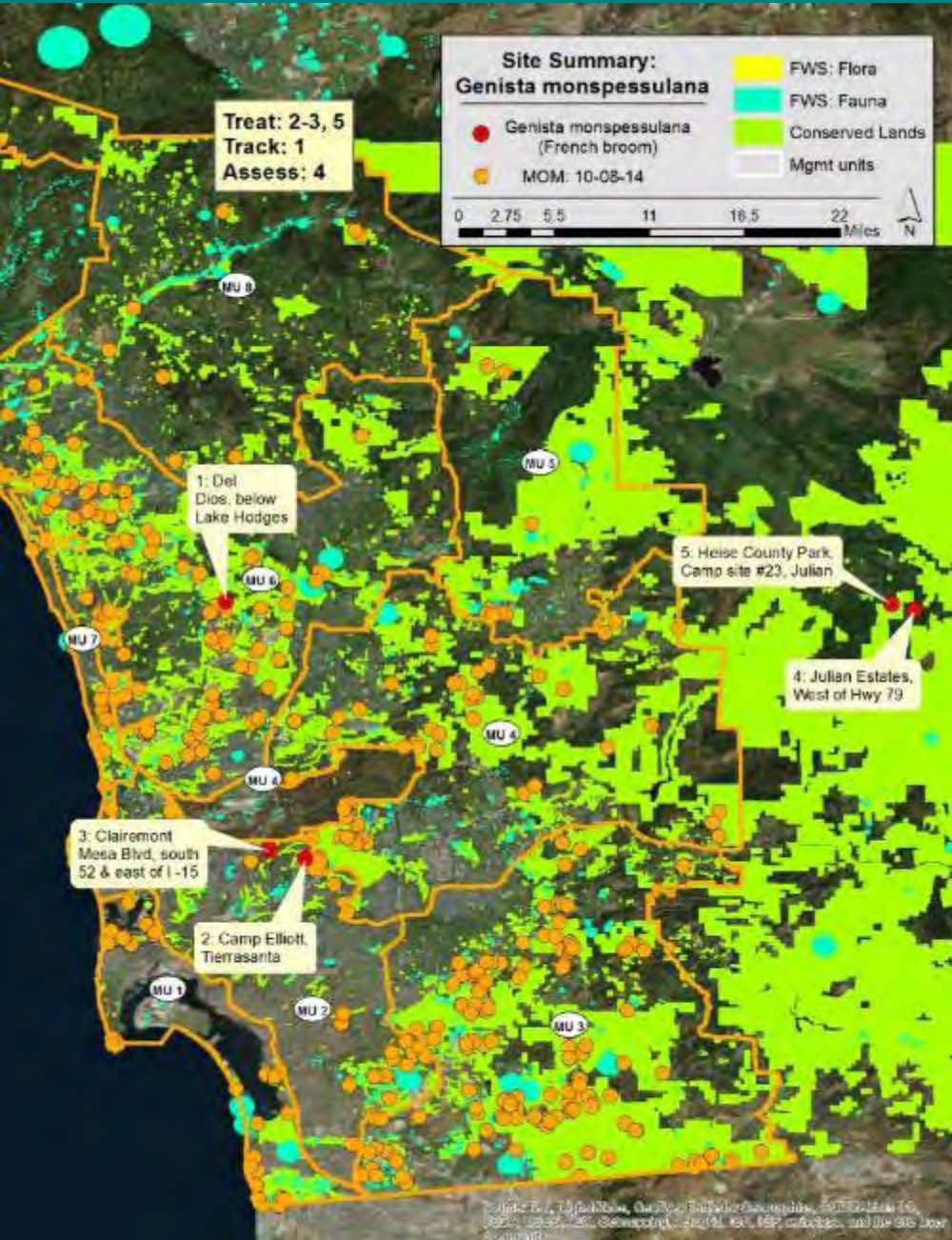


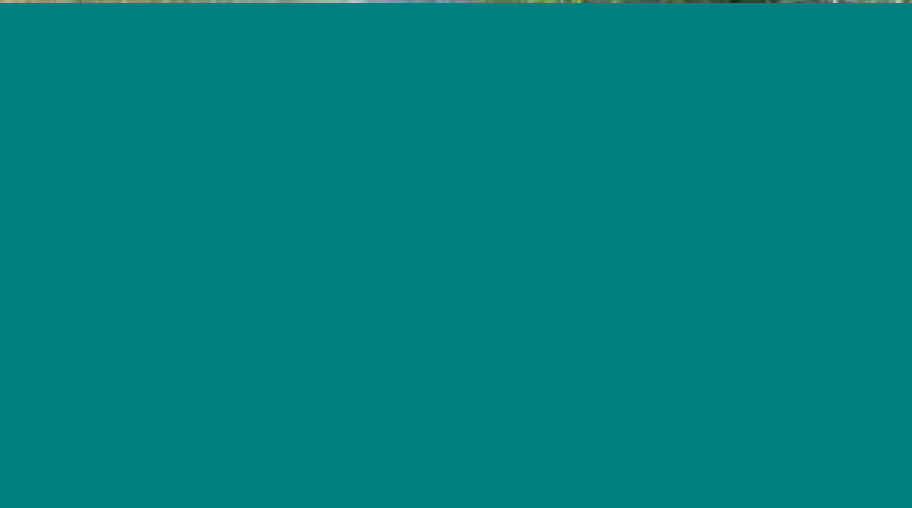
Report sightings to: edrrsd@gmail.com and database at www.Calflora.org



Cal-IPC

Genista monspessulana (French broom)







Limonium duriusculum: European sea lavender



Invasive Non-Native:
European Sea Lavender
(*Limonium duriusculum*)

Description: perennial herb 6-12" (20-30 cm) tall in flower, lower leaves in dense rosettes ½ - 1 ½" (1-4 cm) long, 1/8 - ¼" (5-9 mm) wide, rounded. Flower: evenly distributed at branch tip, small < ¼" (7mm), pale pink.

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

Similar to (see back): Algerian sea lavender (non-native) has narrower leaves and flowers are closer together. 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.



Photo © Gavin Archibald



Photo © Gavin Archibald



Native
Limonium

Algerian sea lavender



Photo © Gavin Archibald

Plants **SIMILAR TO:**

European Sea Lavender (*Limonium duriusculum*)

Algerian sea lavender (*L. ramosissimum*): (**non-native**) has spoon shaped leaves and flowers are tightly clustered along inflorescence tip (see other ID sheet: PLEASE MAP).

Perez's sea lavender or statice (*L. perezii*): (common **non-native** used in landscaping) large plants with longer, wider, & bright green leaves 1½–6" (4–15 cm) long, 1–3" (2.5–7 cm) wide, large showy flower clusters.

California sea lavender (*L. californicum*): (native) overall about twice the size of Algerian SL, has larger longer leaves, blade 2–6" (5–15 cm) long, ½–2" (1.5–6 cm) wide, and very spatulate (narrow then abruptly wider). Flowers small and delicate like Algerian sea lavender, but corolla blue.



Perez's sea lavender or statice



California sea lavender (native)











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, 1/4-3/4" (7-20 mm) wide, spoon shaped, tip acute to rounded. Flower: delicate multi-branched, tight clusters. Flower: calyx (outer flower part) white < 1/4" (4-6mm), corolla (inner flower part) pale pink to purple < 1/4" (5-7 mm).

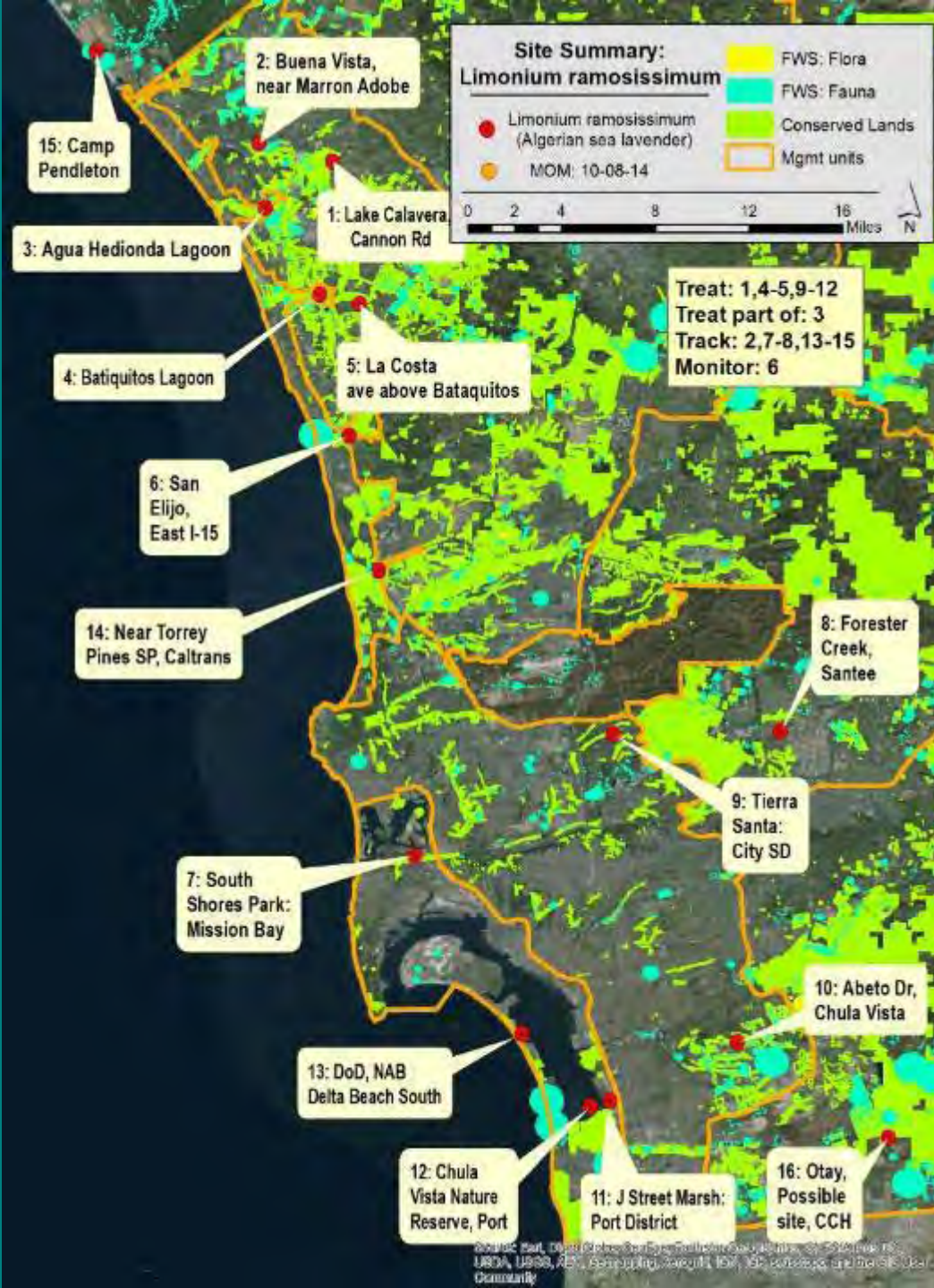
Ecology: salt-tolerant, coastal salt marsh as well as riparian habitat (even grassland & disturbed areas).

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.


Photo © Gavin Archibald





Limonium ramosissimum: Algerian sea lavender





**Site: #3 Aqua Hedionda
Lagoon, 15 acres**


 **Limonium ramosissimum
(Algerian sea lavender)**


 **MOM: 10-08-14**

 **FWS: Flora**

 **FWS: Fauna**

 **Conserved Lands**

 **Parcels**

 **Mgmt Unit**

0 0.25 0.5
Miles












Site: #4 Batiquitos Lagoon
0.7 acres treated 2015-3-12

 *Limonium ramosissimum*
(Algerian sea lavender)




0 0.05 0.1 0.2 Miles


Not treated in spring 2015


Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, IPR, swisstopo, and the GIS User Community, Esri, HERE, DeLorme, Mapbox, and other contributors





**Site: #5 La Costa Ave,
above Batiquitos Lagoon
0.2 acres**


 *Limonium ramosissimum*
(Algerian sea lavender)


 MOM: 10-08-14

 FWS: Flora

 FWS: Fauna

 Conserved Lands

 Parcels

 Mgmt Unit

0 0.05 0.1 0.2 0.3 0.4
Miles



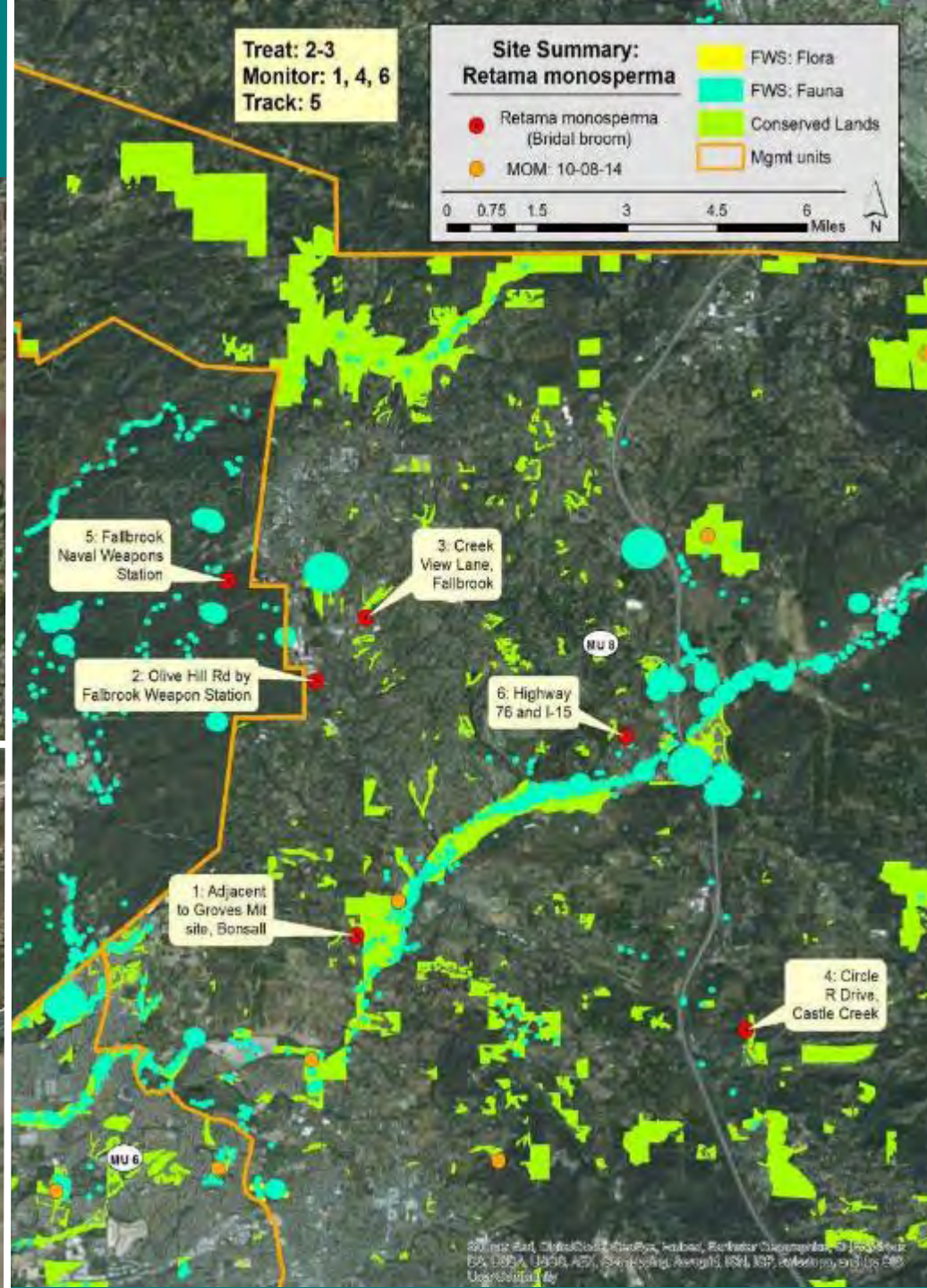
City of Carlsbad roads

MU 6

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, AeroGRID, IGN, GEBCO, Swire, and the GIS User Community, Esri, HERE, DeLorme, Mapbox, and other contributors



Retama monosperma: bridal broom









44612313


2998


3048


Meade Ave

4398

**Site: #7 3038 Meade Ave,
Retama monosperma**

 Retama monosperma (Bridal broom)

 Yes: ROE

 No: ROE

0 25 50
Yards



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroX, @mapbox, AeroGRID, IGN, @swisstopo, and the GIS User Community. Esri, HERE, DeLorme, MapmyIndia, @OpenStreetMap contributors



Invasive Non-Native:
Red Sesbania, Rattlebox
(*Sesbania punicea*)

Description: shrub to small tree that can grow up to 10 ft (3 m) tall. Leaflets: 20-34 per branch (always an even number), elliptic to elliptic-oblong. Flower: **Orange-red pea-like flowers**, 5-15 per group. Fruits: 1-3" (2.5-7 cm) long.

Ecology: wetlands/riparian areas, other moist sites, roadsides, cultivated as an ornamental plant.

Similar: looks a bit like: black locust (*Robinia pseudoacacia*), an uncommon non-native tree with white flowers and obvious spines on the stem and *Cassia occidentalis*, yellow flowered, 8 leaflets.



All Photos © Joe DiTomasso

**Site #1: Tecolote Canyon
Sesbania punicea**

● Sesbania punicea
(Rattlebox)

● MOM: 10-08-14

□ FWS: Flora

□ FWS: Fauna

■ Conserved Lands

□ Parcels

□ Mgmt Unit

0 0.25 0.5 1 1.5 Miles



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, Aero, GeoMapping, AeroGRID, IGN, IGP, swisstopo, and the GIS User Community, Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors



Jim Roberts [mailto:jimirob@san.rr.com]

Recently a noxious weed listed in CCR 4500 (http://www.cdfa.ca.gov/plant/regs_nws.html) was found for sale in Sonoma County.

The plant is called *Sesbania punicea*, also known as *Sesbania tripetti*.

The attached list contains nurseries which purchased *S. punicea* from Monterey Bay Nursery (the supplier of the Sonoma County nursery).

Nursery	Address	City	Zip	County	Invoice Date	# Plants	Note
The Avant Gardener - Landscape Design	4424 Reinhardt Drive	Oakland	94619	Alameda	7/16/2015	9	Nursery not in Database
Evergreen Garden Center, Inc.	210 West Alluvial Avenue	Clovis	93611	Fresno	6/26/2015	12	
Lincoln Avenue Nursery, Inc.	804 Lincoln Avenue	Pasadena	91103	Los Angeles	7/25/2015	5	
Marina del Rey Garden Center	13198 Mindanao Way	Marina Del Rey	90292	Los Angeles	7/3/2015	4	
Armstrong Garden Centers, Inc.	5816 San Fernando Road	Glendale	91202	Los Angeles	8/5/2015	*10	*10 plants total sent to Armstrong (see Ventura County)
Armstrong Garden Centers, Inc.	25225 Crenshaw Boulevard	Torrance	90505	Los Angeles	8/5/2015	see note	*10 plants total sent to Armstrong (see Ventura County)
North Star Nursery	17901 North Highway One	Fort Bragg	95437	Mendocino	7/1/2015	2	
Miss Trawick's Home and Garden	664 Lighthouse Avenue	Pacific Grove	93950	Monterey	7/22/2015	1	Nursery not in Database
Country Roads Antiques	204 West Chapman Avenue	Orange	92866	Orange	6/19/2015	2	Nursery not in Database
Green Thumb International, Inc. - El Toro	23782 Bridger Road	Lake Forest	92630	Orange	7/2/2015	2	
Plant Depot	32413 San Juan Creek Road	San Juan Capistrano	92675	Orange	6/25/2015	3	Address in Database is 33413 San Juan Creek Road
Upland Bonsai Nursery	1518 North Tustin Street	Orange	92867	Orange	6/25/2015	5	
Village Nurseries, L.P. (HB)	10500 Garfield Avenue	Huntington Beach	92646	Orange	7/3/2015	4	
Village Nurseries, L.P. (ORG)	1582 North Tustin Street	Orange	92867	Orange	7/10/2015	4	
Emigh Hardware Company	3535 El Camino Ave, Country Club	Sacramento	95821	Sacramento	7/23/2015	4	Address in database is 3555 El Camino Avenue
Anderson's La Costa Nursery	400 La Costa Avenue	Encinitas	92024	San Diego	6/25/2015	5	
Walter Anderson Enterprises	3642 Enterprise Street	San Diego	92110	San Diego	6/25/2015	*20	*20 plants total sent to Walter Anderson
Walter Anderson Enterprises	12755 Danielson Court	Poway	92064	San Diego	6/25/2015	see note	*20 plants total sent to Walter Anderson
Pacific Nurseries	2499 Hillside Boulevard	Colma	94014	San Mateo	7/10/2015	6	
Seaside Gardens	3700 Via Real	Carpinteria	93013	Santa Barbara	7/22/2015	3	
Summer Winds Garden Centers of California (C)	15796 Winchester Boulevard	Los Gatos	95030	Santa Clara	6/26/2015	2	
Dig Gardens	420 Water Street	Santa Cruz	95060	Santa Cruz	6/19/2015	2	
Friedman's Home Improvement	429 North McDowell Boulevard	Petaluma	94954	Sonoma	7/31/2015	*15	*15 plants total sent to Friedman's
Friedman's Home Improvement	1360 Broadway Avenue	Sonoma	95476	Sonoma	7/31/2015	see note	*15 plants total sent to Friedman's
Green Thumb International, Inc. -Ventura	1899 Victoria Avenue	Ventura	93003	Ventura	7/3/2015	5	
Armstrong Garden Centers, Inc.	50 Taylor Court	Thousand Oaks	91360	Ventura	8/5/2015	see note	Location not in Database. *10 plants total sent to Armstrong