Bay Area Early Detection Network
B.A.E.D.N.
Alameda - Contra Costa – Marin – Napa – San Francisco
San Mateo – Santa Clara - Solano - Sonoma

Dittrichia graveolens 1984

Mendocino
Lake
Colusa
Yuba
Sutter
Placer
El Dorado
Yolo
Sonoma
Napa
Sacramento
Amador
Solano
Calaveras
Marin
Contra Costa
San Joaquin
Tuolumne
San Francisco
Alameda
Stanislaus
Mariposa
San Mateo
Santa Clara
Merced
Santa Cruz
Madera
San Benito
Monterey
Fresno

Dittrichia graveolens 1984

California Counties

Dittrichia graveolens data courtesy of
Santa Clara County Weed Management Area

N

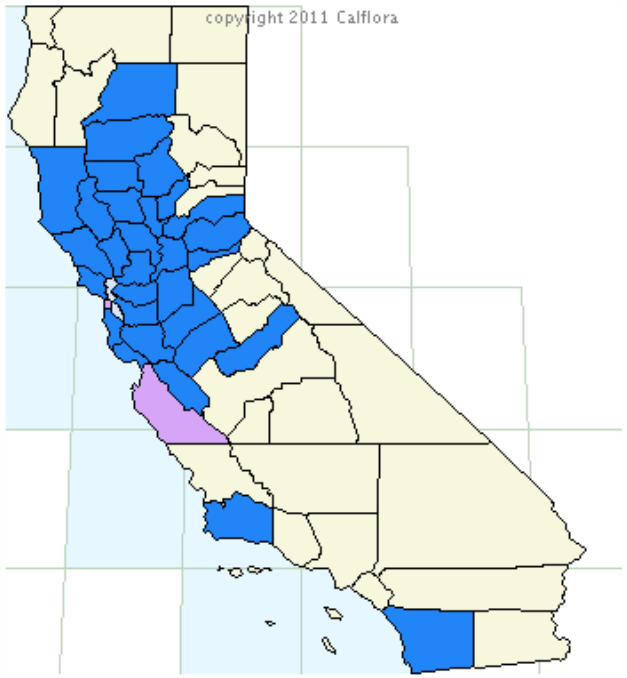
0 12.5 25 50 Kilometers

0 12.5 25 50 Miles

www.calflora.org/cgi-bin/species_query.cgi?where-calrecnum=8482
eBay ESRI Conservation P... s Calflora - Search for ... Consortium of Calif... Tipbook Clarinet - G...

Distribution in California by County:

See a detailed **Distribution Grid** of this plant in California.



A shaded county indicates that there are **one or more** ocurrence records of this plant within the county.

Hover the mouse over the map to see county names. Click to view records from that county.

There are **specimen** records from this county in an herbarium.

There are **documented** records, vouchered or confirmed by an expert.

There are **reported** records.

There are reported records available indirectly (eg. in botanical **literature**).

Look for **Observations with Photos**

View All Records

Records by County, with approximate record counts in the form: TOTAL / CCH. Click county name to view records.

Alameda:	547 / 16 CCH	Amador:	3 / 3 CCH	Butte:	12 / 12 CCH	Contra Costa:	29 / 11 CCH	Colusa:	1 / 1 CCH
El Dorado:	1 / 1 CCH	Glenn:	1 / 1 CCH	Lake:	1 / 1 CCH	Madera:	1 / 1 CCH	Mendocino:	4 / 2 CCH
Merced:	1 / 1 CCH	Monterey:	2 / 0 CCH	Marin:	57 / 1 CCH	Napa:	2 / 1 CCH	Placer:	5 / 5 CCH
Sacramento:	9 / 6 CCH	Santa Barbara:	1 / 1 CCH	San Benito:	6 / 2 CCH	Santa Clara:	431 / 13 CCH	Santa Cruz:	7 / 2 CCH
San Diego:	14 / 14 CCH	San Francisco:	3 / 0 CCH	Shasta:	2 / 2 CCH	San Joaquin:	4 / 4 CCH	San Mateo:	150 / 2 CCH
Solano:	14 / 6 CCH	Sonoma:	64 / 4 CCH	Stanislaus:	6 / 5 CCH	Sutter:	1 / 1 CCH	Tehama:	1 / 1 CCH
Yolo:	5 / 5 CCH	Yuba:	2 / 2 CCH						

2006 Kick-off meeting

Outreach to Partners

WEED DATA WANTED FOR THE CALFLORA DATABASE!

Three Ways to Contribute Data!

1) Enter individual non-native plant observations **online**.
2) Submit an entire **GIS** dataset from a project.
3) Submit field observations of non-native plants via a **smartphone** application.

*A Frequently Asked Questions page about Contributing Plant Observations is posted at www.calflora.org/add/pofaq.html.

1) Enter individual non-native plant occurrences.

Go to www.calfl
Certain data field
out if the corresp
which brings up a small scrollable window with field name definitions.

Typing within the *Scientific* or *Common Name* fields automatically acti
California's non-native plant names. Taxa not yet recorded in Californ
appear in the drop down menu. Once a taxon is selected you can expl
toggle to the lower left of the map.

If you know the coordinates, check the box to enter them; otherwise,
the location. The drop-down menu in the map's upper right corner all

You may also click on the *Photos* toggle to add your pictures associate

After data entry is complete, click the Save button on the bottom left

Under the Save button is an option to **publish the record** which makes
records can only be viewed by the person who entered them. Some contributors choose to work on certain rec
time in an unpublished state, and then publish those records only when they are ready.

Contact spprt@calflora.org for additional Calflora technical a

Bay Area Early Detection Network gets rolling

Daniel Gluesenkamp, Audubon Canyon Ranch

Whether we are protecting humans from swine flu or protecting rivers from *Arundo donax*, early detection and rapid response (EDRR) is the most cost-effective approach for coping with biological invasions. Indeed, the official California Invasive Weed Action Plan identifies EDRR as "the single most important element" for coping with invasions. EDRR is a "stitch-in-time" approach which proactively deals with infestations before they can grow into large and costly environmental threats. By acting early we efficiently prevent the environmental and economic damage caused by harmful invaders, we can use less intrusive control techniques, and we dramatically reduce the planning and resources required to manage populations compared to when they have grown larger and become well established.

The Bay Area Early Detection Network (BAEDN) is an exciting new initiative that builds an EDRR system to serve the entire nine county San Francisco Bay Area: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma counties. The group unites and coordinates the EDRR efforts of dozens of agencies, hundreds of professional land managers, and potentially thousands of volunteers. BAEDN partners work together to develop a scientifically rigorous list of the most harmful invasive plants, train each other in detection techniques, make detections and report them to the online website, and then prioritize individual patches so that the most dangerous outbreaks can be removed before they spread. It's simple, it's

...continued next page

Invasive Weeds Beware -- BAEDN Is Here!

"EARLY DETECTION" PROGRAM LAUNCHED TO MARK CALIFORNIA INVASIVE WEEDS AWARENESS WEEK
SF BAY AREA, CA JULY 20, 2009

s have announced the launch of the Bay Area Early
alifornia Invasive Weed Awareness Week of July 20-25th.
ponse (EDRR) system designed as the first line of defense
twork includes the entire nine-county San Francisco Bay

have been harmed. It's simple, it's sensible,

Initiated in 2006 by Audubon Canyon Ranc
Gluesenkamp, National Park Service's San
Andrea Williams, U.S. Fish & Wildlife San P
numerous colleagues throughout the Bay A
the network. Calflora has built BAEDN's use
Google map interface and pick-lists to make

In addition, BAEDN has hired Jennifer Ster
California Department of Food and Agricult
Wildlife funding. ACR's Partners in Conserv
Foundation have also supported BAEDN. B
Watchers program, which trains volunteers
Gate National Recreation Area, and builds c

BAEDN -- A New Strategy for Invasives

By Don Mayall, Chair, Rare Plants, Santa Clara County

In 1984, a member of our Chapter discovered an unknown tarweed-like plant along the railroad tracks near Alviso in Santa Clara County. It was not even in the Jepson Manual. It was identified as stinkwort, (*Dittrichia graveolens*), an invasive nonnative from Europe. Little attention was paid to it by land managers, although it had been a pest plant in Australia for the past 150 years. It subsequently spread rapidly in the county forming a dense monoculture in wetlands, vacant fields, and along trails. It is now a serious problem to the Santa Clara Valley Water District and the County Parks and Recreation Department.

In 2004 a grass was noted growing under the redwoods at Thornewood Open Space Preserve in San Mateo County. A perennial bunchgrass, it seemed a lot like native grasses, but was checked out and discovered to be slender false brome (*Brachypodium sylvaticum*), a nonnative from Europe that had already spread through 10,000 acres in Oregon. Because of quick work by the Open Space District and the County Department of Agriculture, this infestation is being brought under control before it spreads widely.

The moral of these stories is that if an invasive plant is detected, its potential to become invasive is recognized, and responsible authorities are notified early enough, widespread environmental damage and costly control programs can be avoided. The California Invasive Weed Action Plan identifies early detection and rapid response as the single most important element for coping with pest plant invasion.

A new effort, the **Bay Area Early Detection Network (BAEDN)**, has just been launched in the nine-county area around San Francisco Bay. This project has received funding from several sources, including the National Fish and Wildlife Foundation, the US Fish and Wildlife Service and the California Department of Food and Agriculture. BAEDN provides a system for easily reporting sightings of invasive plants and getting them into the Calflora Database.

News and Events Around the West

The local community chapters are committing labor force and other in-kind service with the Agency purchasing the needed chain saws, herbicide and licensed applicators.

Long range plans by Ft. Defiance Agency are to re-establish the historic vegetations along the Little Pueblo Colorado Wash that includes transplanting native species as Cottonwood and Navajo Willow along the stream bed. Long-term benefits are the protection and preservation of native vegetation which will enhance the beauty and conservation of the wash by controlling the aggressive woody species.

SF Bay Area Early Detection Network Each of us has born witness to an ugly invasion, each of us carry the memory of a wild piece of California which has been lost to weedy invaders. We all have noticed a small outbreak of some harmful weed, and thought "someone should do something about that before it expands." Fortunately, there are tools which can save some of our remaining wild places. Whether we are protecting humans from swine flu or protecting rivers from *Arundo donax*, early detection and rapid response (EDRR) is the most cost-effective approach for coping with biological invasions. EDRR is a "stitch-in-time" approach which proactively deals with infestations before they can grow into large and costly environmental threats. By acting early we efficiently prevent the environmental and economic damage caused by harmful invaders, and we can use less intrusive techniques, and we dramatically reduce the planning and resources required to control large, established invasive plant populations.

We have all recognized the importance of early detection and rapid response (EDRR), and EDRR is consistently identified as "the single most important element" in coping with biological invasions (2005 California State Noxious Weed Action Plan). Of course, we also know about the benefits of regular exercise; it can be difficult to do what we know is right. An effective EDRR program is a rare thing; it requires large-scale coordination of multiple actors, it requires systems for prioritizing targets and managing multi-year treatment, it means that some large and compelling invasions go without treatment so that we can address small but important outbreaks.

The Bay Area Early Detection Network (BAEDN) is an exciting new initiative that builds an EDRR system to serve the entire nine county San Francisco Bay Area. The group unites and coordinates the EDRR efforts of dozens of agencies, hundreds of professional

10:06 AM

Growing the Network

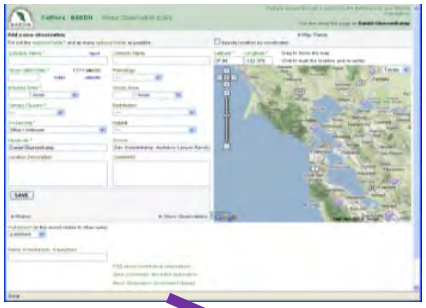
Acterra
Alameda County Department of Agriculture
Audubon California
Audubon Canyon Ranch
BAELIN Inc.
Bay Area Open Space Council
Bay Institute
Calflora Database
California Association of Resource Conservation Districts
California Department of Fish and Game
California Department of Food and Agriculture
California Department of Pesticide Regulation
California Invasive Plant Council
California Native Plant Society
California State Coastal Conservancy
California State Parks
Caltrans District 4
City and County of San Francisco
City of Walnut Creek
Conservation Value, Inc
Contra Costa County Department of Agriculture
Contra Costa Resource Conservation District
Creekside Center for Earth Observations
Ducks Unlimited
East Bay Regional Parks District
Friends of 5 Creeks
Friends of Corte Madera Creek
Friends of Glen Canyon Restoration Team
Friends of Sausal Creek
Garcia and Associates
Gold Ridge Resource Conservation District
Golden Gate National Parks Conservancy
Jasper Ridge Biological Preserve - Stanford University
Jepson Herbarium
Laguna de Santa Rosa Foundation
Land Trust of Napa County
Literacy for Environmental Justice
LSA Associates
Marin Audubon
Marin County Open Space District
Marin Municipal Water District
Midpeninsula Regional Open Space District
Napa Botanical Survey Services
Napa County
National Park Service
Nature in the City
North Hills Landscape Committee
Peninsula Open Space Trust Cloverdale
Pepperwood Preserve
Pacific Gas & Electric (PG&E)
Presidio Trust
Regional Water Quality Control Board
San Francisco Bay Joint Venture
San Francisco Estuary Invasive Spartina Project
San Francisco Natural Areas Program
San Francisco Parks Trust
San Mateo Co Parks & Rec Foundation
San Mateo County Department of Agriculture
San Mateo Resource Conservation District
Santa Clara County Department of Agriculture
Santa Clara County Open Space Authority
Save the Bay
Shelterbelt Builders INC
Solano Agricultural Commissioner
Solano Land Trust
Solano Resource Conservation District
Sonoma Ecology Center
Sonoma Land Trust
Stanford University
University of California Berkeley Botanical Garden
University of California Berkeley Herbarium
University of California Cooperative Extension
University of California Davis
University of California Santa Cruz
United States Fish & Wildlife Service
Weed Management Area - Alameda/Contra Costa
Weed Management Area - Marin/Sonoma
Weed Management Area - Napa
Weed Management Area - San Francisco
Weed Management Area - San Mateo
Weed Management Area - Santa Clara
Weed Management Area - Solano
West Coast Wildlands

2010 Partners meeting

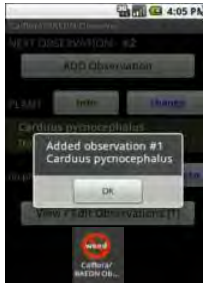
Photo by Bob Case

Occurrence Reporting

Web Entry App

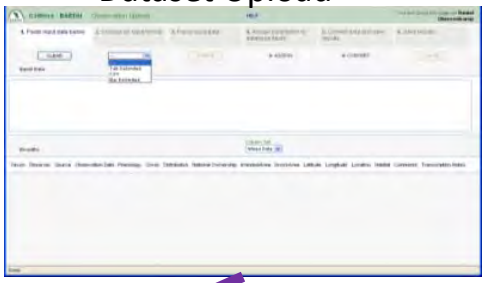


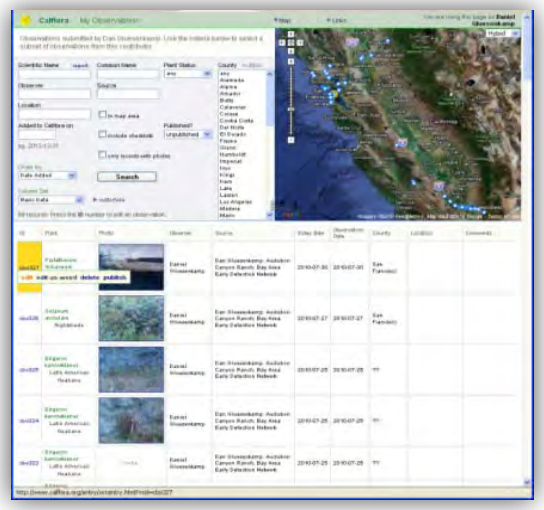
Phone

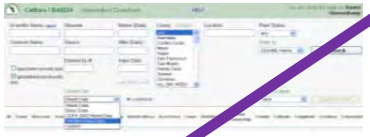


Geotagged Photo

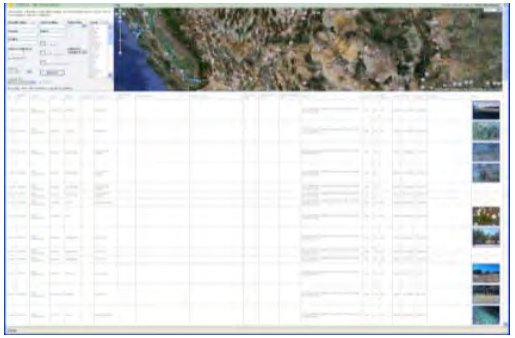
Dataset Upload



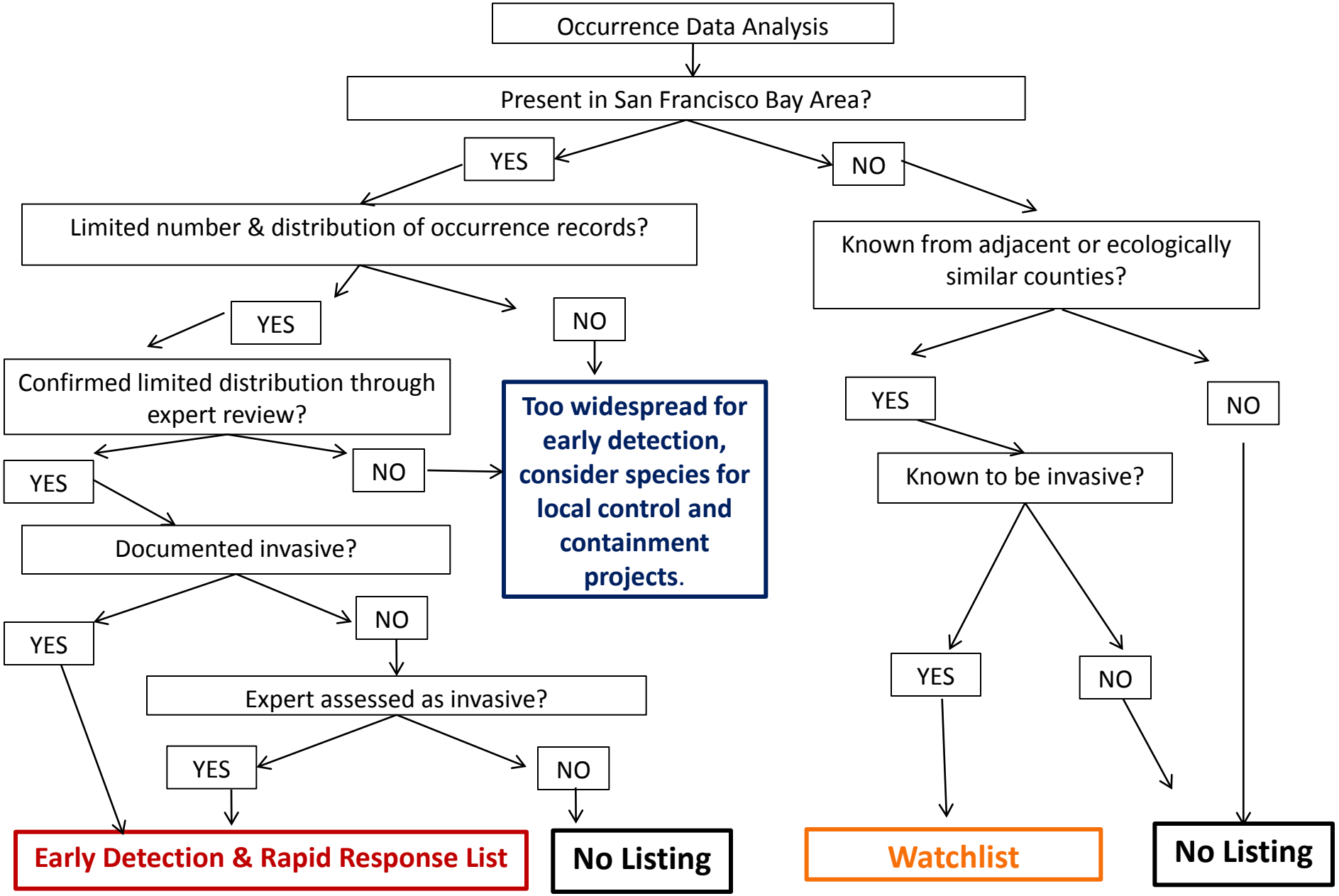




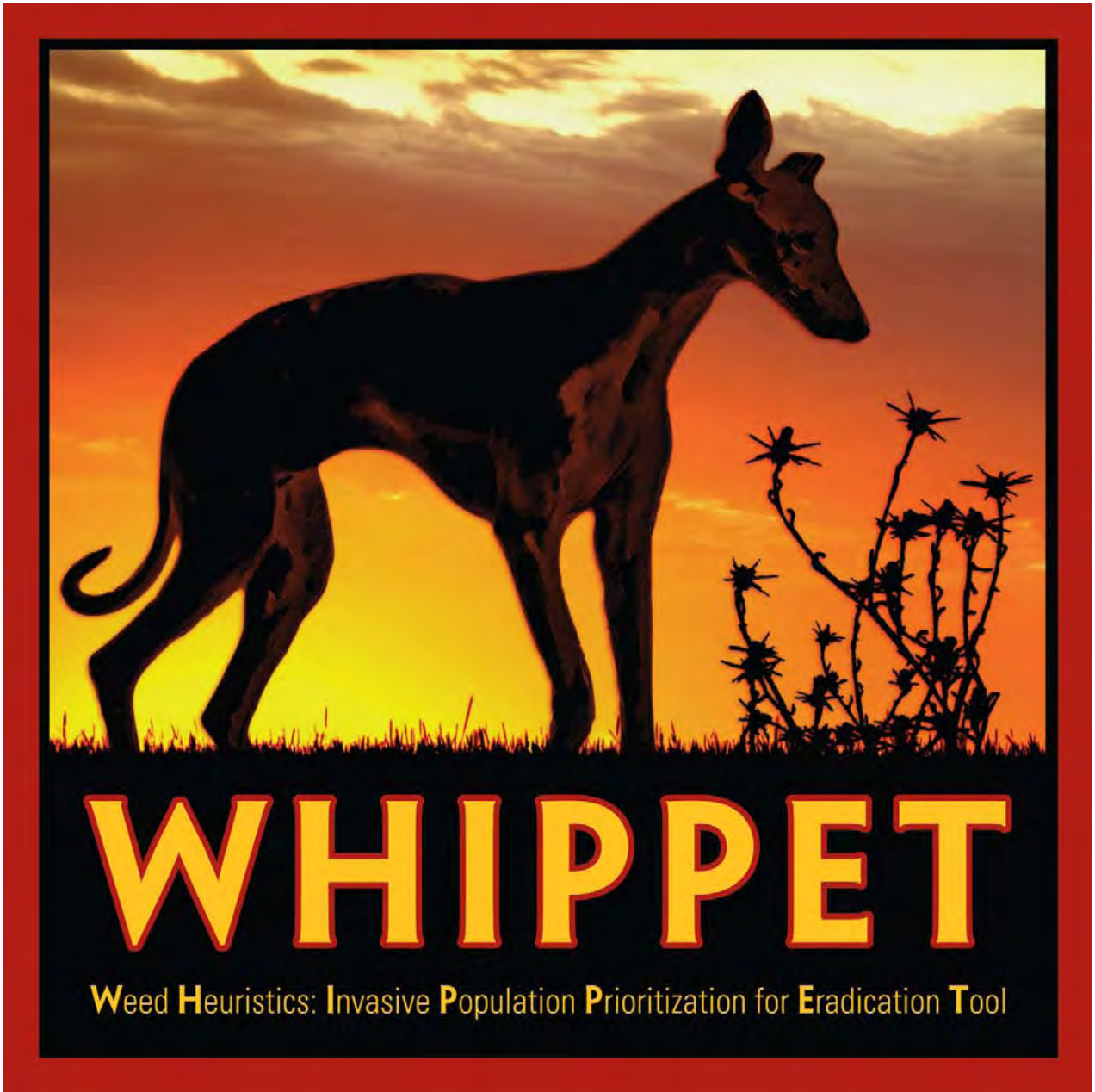
MyWeedManager



Species Prioritization



Occurrence Prioritization



1) High Priority species? (S)
2) Not included in containment zone? (P)
3) Not a biological control release site? (P)
4) Accessible during control season? (P)

IMPACT 0.378

- *Impact to wildlands* 0.336 (S)
- *Impact to agriculture* 0.238 (S)
- *Impact to humans* 0.113 (S)

INVASIVENESS 0.229

When a problem comes along . . .
When something's going wrong
You must WHIPPET

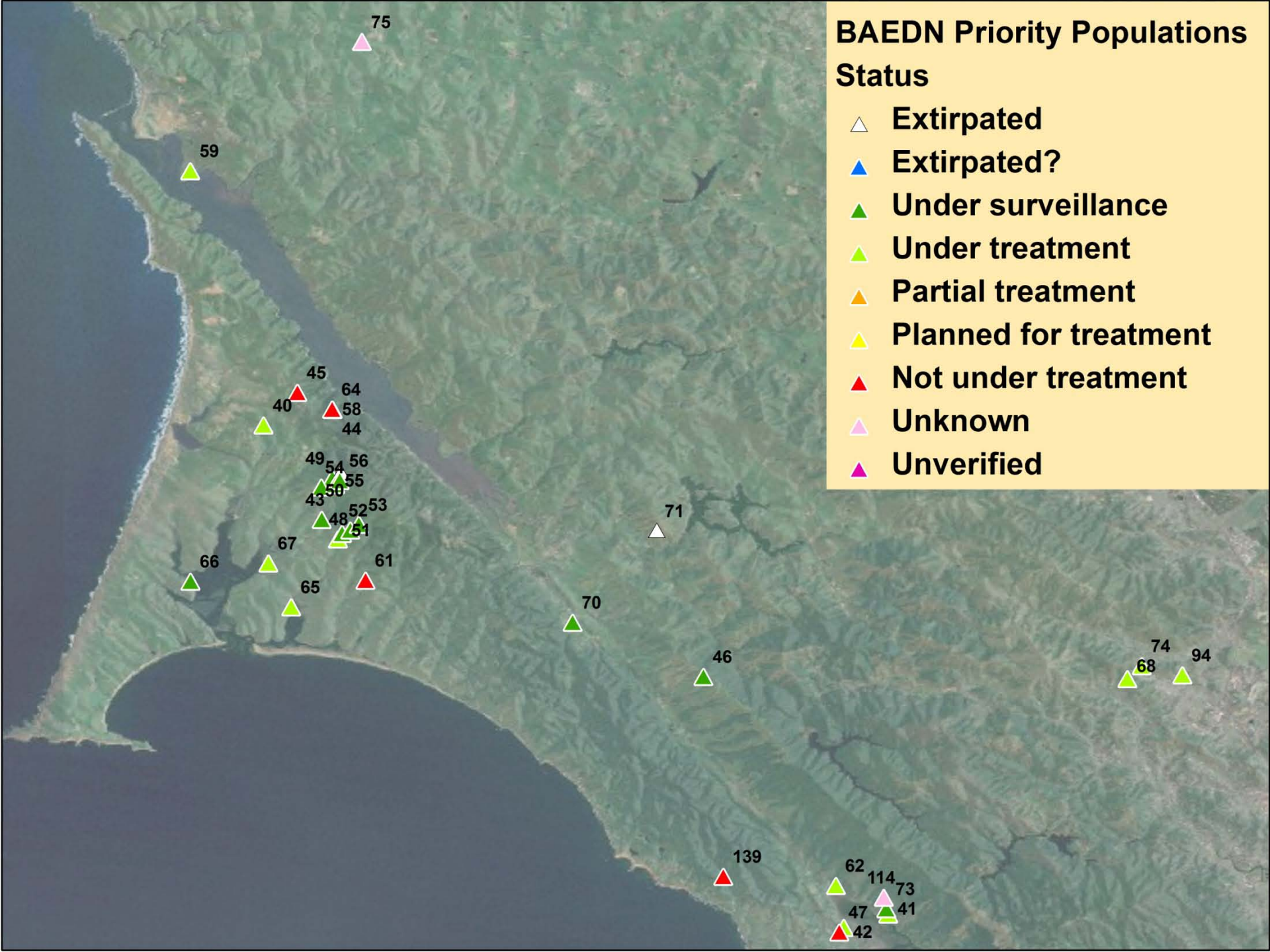
Go forward,
Move ahead
Try to detect it
It's not too late
To ***WHIPPET***

phase - 0.132

th of reproductive phase - 0.106

- *Detectability* (DE) 0.125 (S)
- *Accessibility* (AC) 0.150 (P)
- *Control effectiveness* (CE) 0.190 (S)
- *Control cost* (S) 0.105 (P)
  - Driving time to site - 0.132
  - On-site cost per acre - 0.338
  - Follow-up visits - 0.347
  - Special considerations - 0.182

BAEDN High Priority Populations
April 15, 2011


BAEDN Priority Populations
Status
Extirpated
Extirpated?
Under surveillance
Under treatment
Partial treatment
Planned for treatment
Not under treatment
Unknown
Unverified
75
59
45
64
40
58
44
49
54
56
55
50
43
48
52
53
51
67
66
61
65
71
70
46
74
68
94
139
62
114
73
47
41
42

BAEDN Population Verifications as of October 3, 2011

Category	Definition	Number of sites	% of total sites
Extirpated	5 Consecutive years of surveillance shows no aboveground plants, or at least no aboveground plants found within the past 5+ years.	10	3.7%
Extirpated?	All plants removed over 5 years ago. Monitoring status for the site is uncertain though.	8	2.9%
Under surveillance	The site is checked for plants annually but there are no aboveground plants. The site is in transition from 'Under treatment' to 'Extirpation.' If any plants are found during surveillance the site status should return to 'Under treatment.'	21	7.7%
Under treatment	Target non-native species actively being removed.	135	49.6%
Partial treatement	Only part of the infestation being treated.	3	1.1%
Planned for treatment	Planned for treatment in 2011 or pending permits or funds.	16	5.9%
Not under treatement	Not under treatment by landowner or manager.	50	18.4%
Unknown	Not known by landowner or manager	26	9.6%
Unverified	No response from landowner, manager, or reporter when contacted about the site.	3	1.1%
	Total	**272**	**100%**

Common crupina (*Crupina vulgaris*)
Annadel State Park, Sonoma County

Photos by Mike Perlmutter

Licorice plant (*Helichrysum petiolare*) Marin County

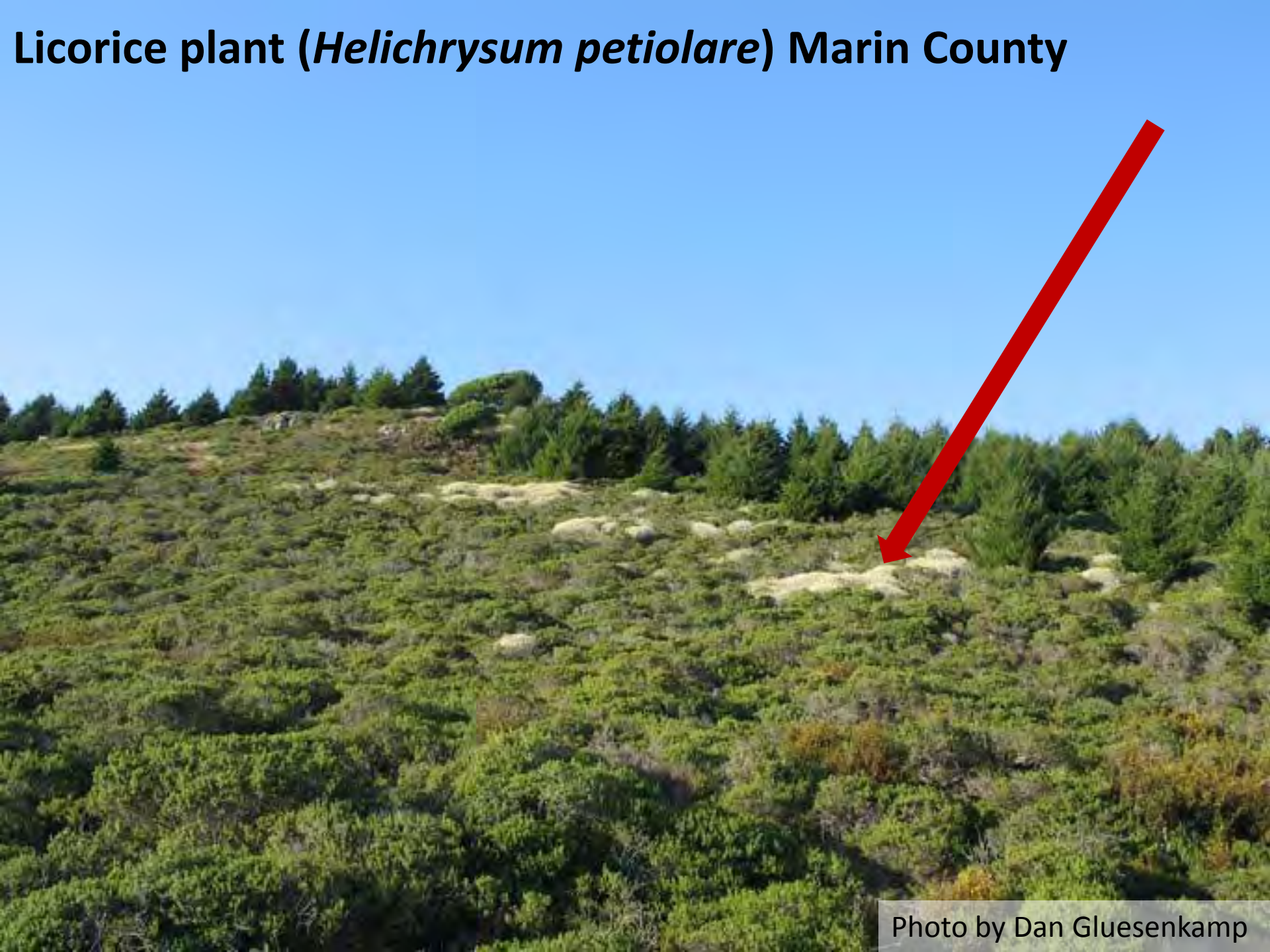


Photo by Dan Gluesenkamp

Hanging sedge (*Carex pendula*) Marin County

Photos by Kathryn Deery

Hypericum grandifolium Marin County

Photo by Jolie Egert

Photo by Mike Perlmutter

Canary Island St. Johns wort (*Hypericum canariense*) on the San Mateo coast

Photo by Chuck Kozak

Photo by Shawn Dardenelle

Russian knapweed (*Acroptilon repens*) Alameda County

Photos by Ed Duarte

Ravennagrass (*Saccharum ravennae*)
UC Davis,
McLaughlin Reserve,
Napa County

Photos by BAELIN

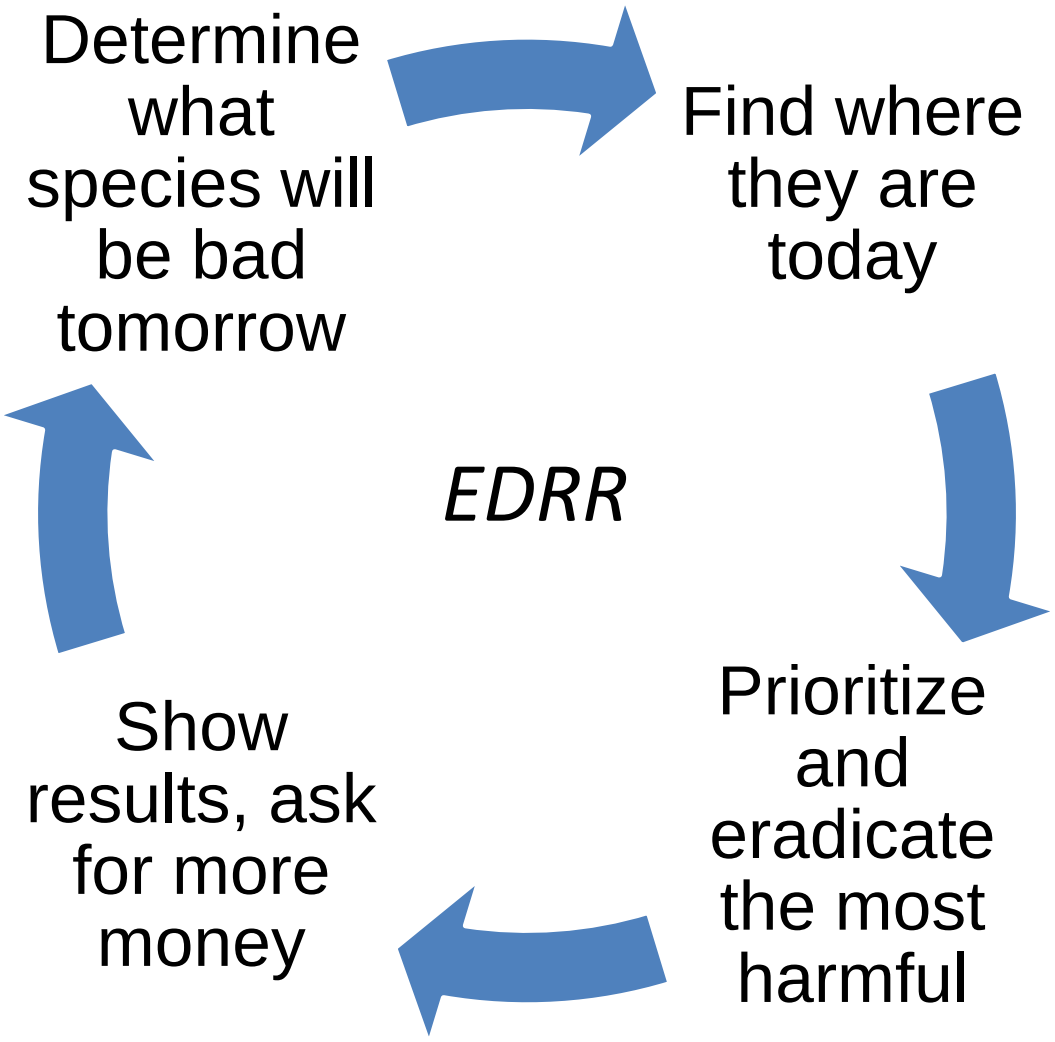
Contra Costa County

Castor bean (*Ricinis comunis*)

Purple loosestrife (*Lythrum salicaria)*

Photos by Mike Perlmutter

Next Steps: *Keep on keepin' on*

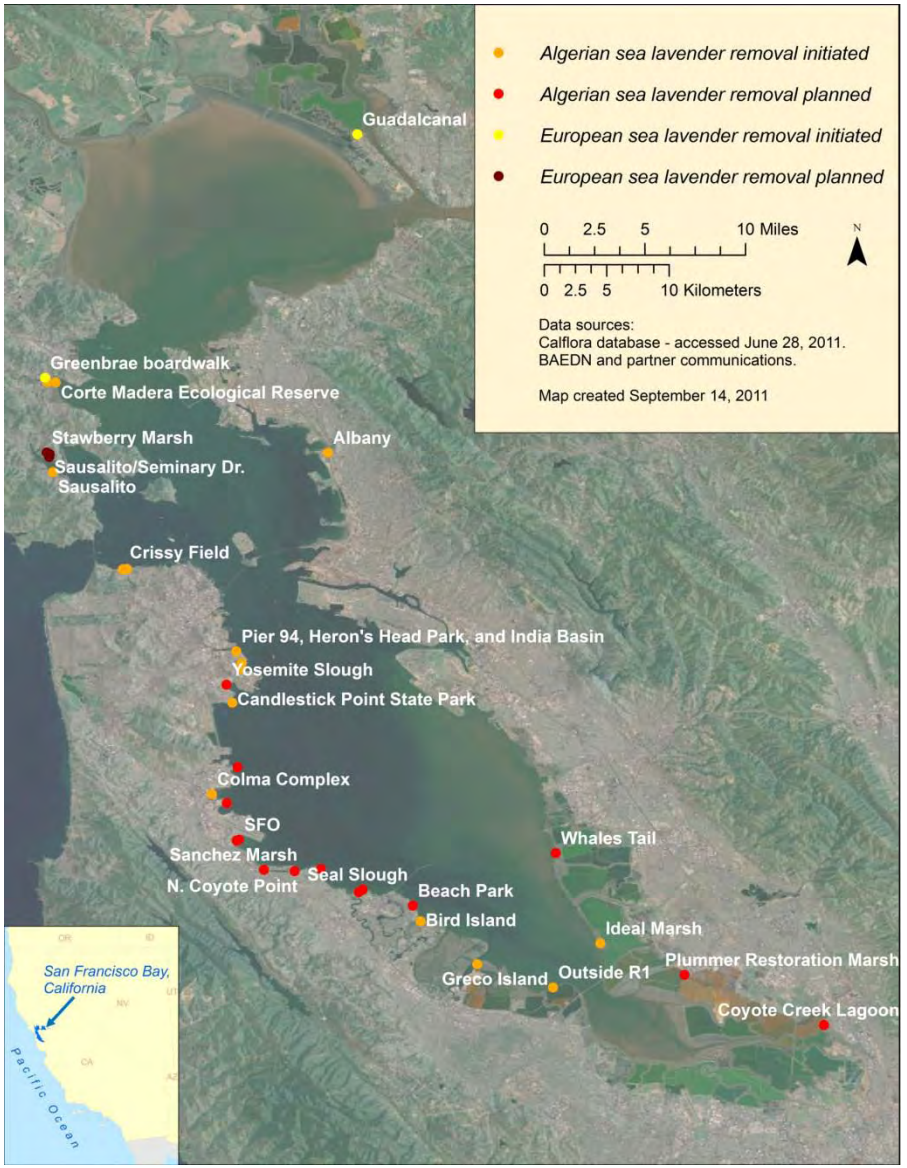


+ Trainings, tool development and capacity building

Next Steps: Improving Coastal Protection

Photo by Joyce Gross

Photos by Mike Perlmutter



Thank You Partners and Supporters

USDA is an equal opportunity provider and employer.

For more info please go to:

BAEDN.org

Contact Mike@BAEDN.org