How to Map and Track Invasive Plants using the Calflora database

Cynthia Powell
cpowell@calflora.org

Calflora database (clearinghouse) contains

> 10,000 native and introduced species (~300 are Cal-IPC listed)

> 3 million plant location observations (points, lines, and polygons)

> 30,000 relationships between old and new plant names

> 300,000 plant photos

> 88,000 unique Calflora e-visitors each month (varies seasonally)

> 4,000 active data contributors (you?)

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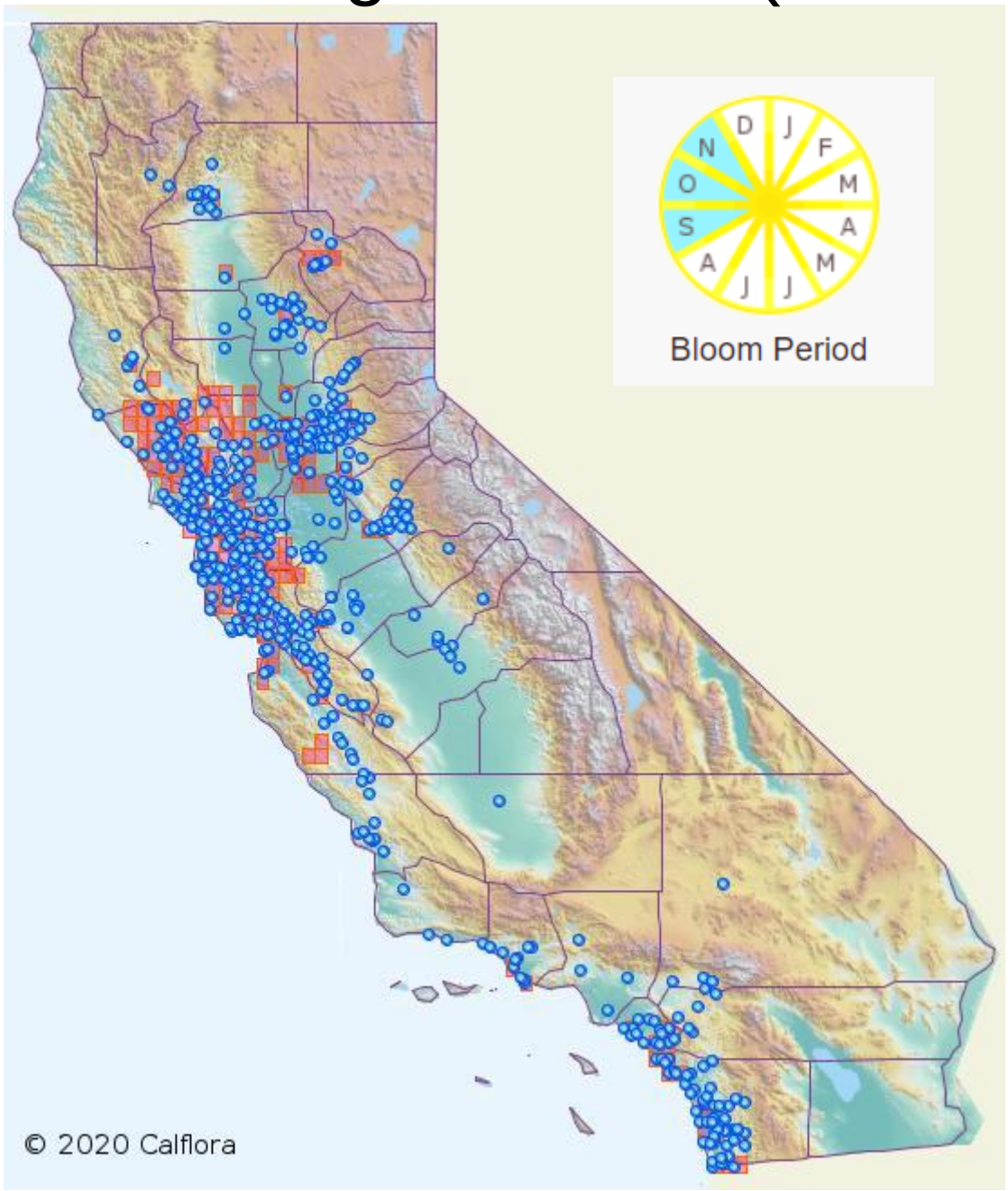
Calflora is a non-profit plant data clearinghouse.

Calflora serves over 3 million plant observations in the state of CA in every file format (try me) across jurisdictions.

Data sources include Calflora observations, EDDMapS, specimens from CCH, and iNat data.

Dittrichia graveolens (stinkwort)



Photos by Ron Vanderhoff

What should you do if you see stinkwort in Humboldt or Kern counties?

A. Look away quickly
B. Report it to Calflora
C. Pull it out before it produces seeds

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How should you go about B.?

How to go about
B. Report it to Calflora?

There are dozens of ways to add data to Calflora; every way you can think of (try me).

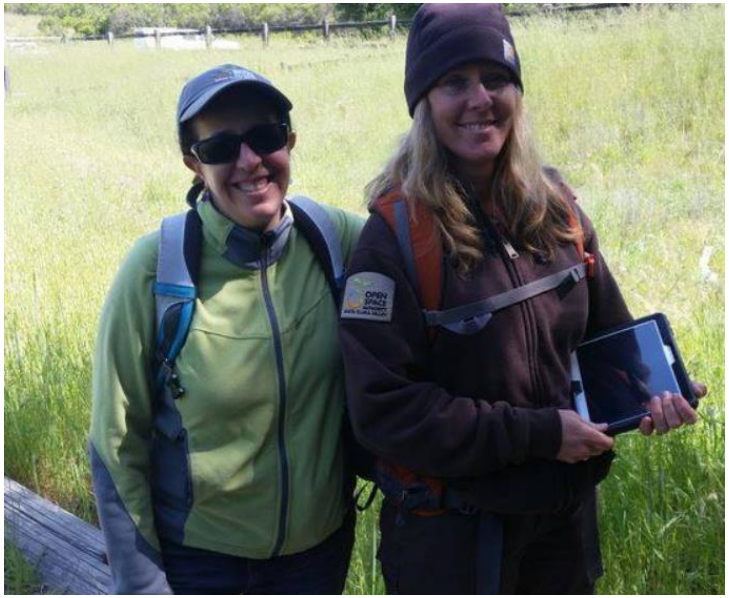
Here are a few:

Use Observer Pro phone app in the field
when you see the stinkwort,
and draw a polygon around the area where the stinkwort is
(no cell connectivity/network needed in the field)

Copy & paste excel sheet including lat/longs into Calflora

Taxon	Observer	Date	Latitude	Longitude	Location Description
Dittrichia graveolens	Patricia Gordon-Reedy	8/26/2010	32.842055	-116.835296	Dist (Med Cal Nat Ar
Dittrichia graveolens	Amy Huie	10/7/2013	32.844731	-116.875663	On the side of a resi
Dittrichia graveolens	Craig Denson	9/16/2019	32.844937	-117.238663	La Jolla Heights, San
Dittrichia graveolens	Cindy Burrascano	3/6/2013	32.897462	-117.148504	Scattered through se
Dittrichia graveolens	Ramona Robison	2/25/2015	32.906941	-117.230536	Los Penasquitos Can

Use a hand-held GPS; add to Calflora at computer



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Upload geotagged photos to Calflora

Editing **mg114122** entered on 2020-06-01 by **Cynthia Powell**

Group
Independent

Project
Simple data collection

Access by others
published

History ▶ none

CANCEL SAVE

Shape ▶ none

Point Location ▶

SIMPLE DATA COLLECTION

Scientific Name *
Rubus armeniacus

Common Name
Himalayan blackberry

Observer *
Cynthia Powell

Observation Date *
2020-05-30 11:39:41

Notes 1000

Location Description 255

Number of Plants

Photos:

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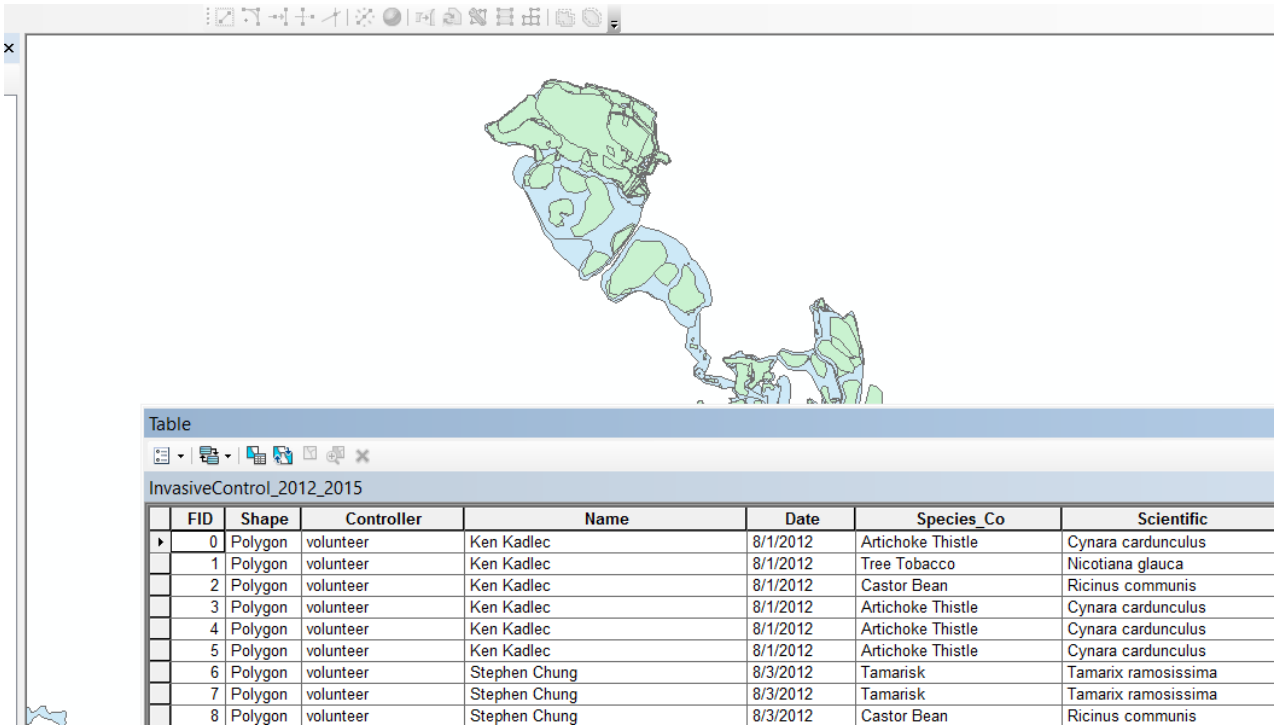
Add one observation at a time to Calflora; pinpoint its location on map.

Upload shapefiles / geodatabases to Calflora



Table

InvasiveControl_2012_2015

FID	Shape	Controller	Name	Date	Species_Co	Scientific
0	Polygon	volunteer	Ken Kadlec	8/1/2012	Artichoke Thistle	Cynara cardunculus
1	Polygon	volunteer	Ken Kadlec	8/1/2012	Tree Tobacco	Nicotiana glauca
2	Polygon	volunteer	Ken Kadlec	8/1/2012	Castor Bean	Ricinus communis
3	Polygon	volunteer	Ken Kadlec	8/1/2012	Artichoke Thistle	Cynara cardunculus
4	Polygon	volunteer	Ken Kadlec	8/1/2012	Artichoke Thistle	Cynara cardunculus
5	Polygon	volunteer	Ken Kadlec	8/1/2012	Artichoke Thistle	Cynara cardunculus
6	Polygon	volunteer	Stephen Chung	8/3/2012	Tamarisk	Tamarix ramosissima
7	Polygon	volunteer	Stephen Chung	8/3/2012	Tamarisk	Tamarix ramosissima
8	Polygon	volunteer	Stephen Chung	8/3/2012	Castor Bean	Ricinus communis

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Pull in records from iNaturalist

iNaturalist

Website

Calflora

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Add a survey polygon + plant list to Calflora

	Taxon	Common	Count	Records	Cover
	Achillea millefolium	Yarrow	51 - 100		1 - 5
	Acmispon glaber	Deerweed	1+		
	Adenostoma fasciculatum	Chamise	101 - 1000		25 - 50
	Adiantum jordanii	California maidenhair fern	1+		
	Aesculus californica	Buckeye	1+		
	Ailanthus altissima	Tree of heaven	0		0

You may **obscure** the location of any observation if you don't want people outside your Calflora group to know its exact location, e.g. for

- Rare plants
- Observations on private property

calflora.org/entry/poe.html

Calflora Plant Observation Entry TOOLS Cynthia Powell EDIT - SIGN OUT

Adding a new record

Group
Independent

Project
Simple data collection

Access by others
published
- published
- unpublished
- private
- obscured

History none

CANCEL SAVE

Point Location none

SIMPLE DATA COLLECTION

Scientific Name *

Common Name

Observer *
Cynthia Powell

Observation Date *
2020-9-2

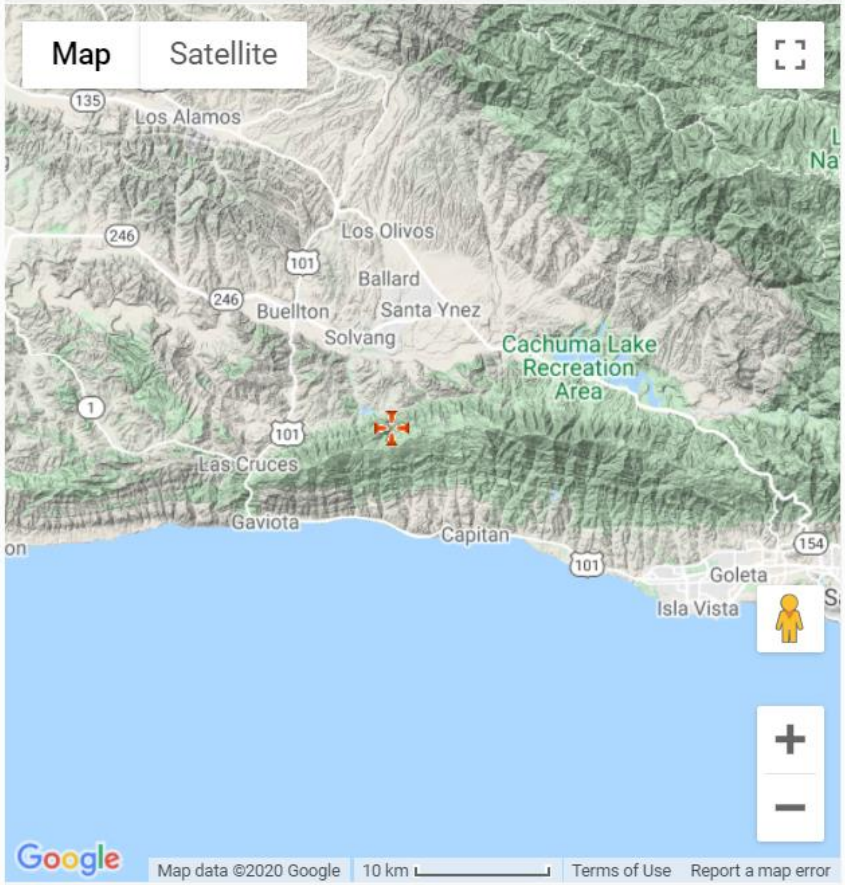
Notes 1000

Location Description 255

Number of Plants
1

Photos: none
Add a photo

LAYERS



34.53428, -120.11253

Data Privacy

Treatment data always private

Settings for observations:
1) Public
2) Unpublished
3) Private
4) Obscured

Set up a **Calflora group** of people with similar interests to share private, unpublished, and obscured data with this group.

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Set up **Calflora email alerts** to know, e.g.

- When stinkwort is first observed within your specific region of Kern County

- When any Cal-IPC listed species is documented on the land you manage

- When any subset of species is documented on the land you manage: create your own plant list for this email alert

If you see an incorrect location or ID in Calflora, what should you do?

A. Keep your frustration to yourself

B. “Comment” on the record so the observer will receive an email

C. Let Calflora know

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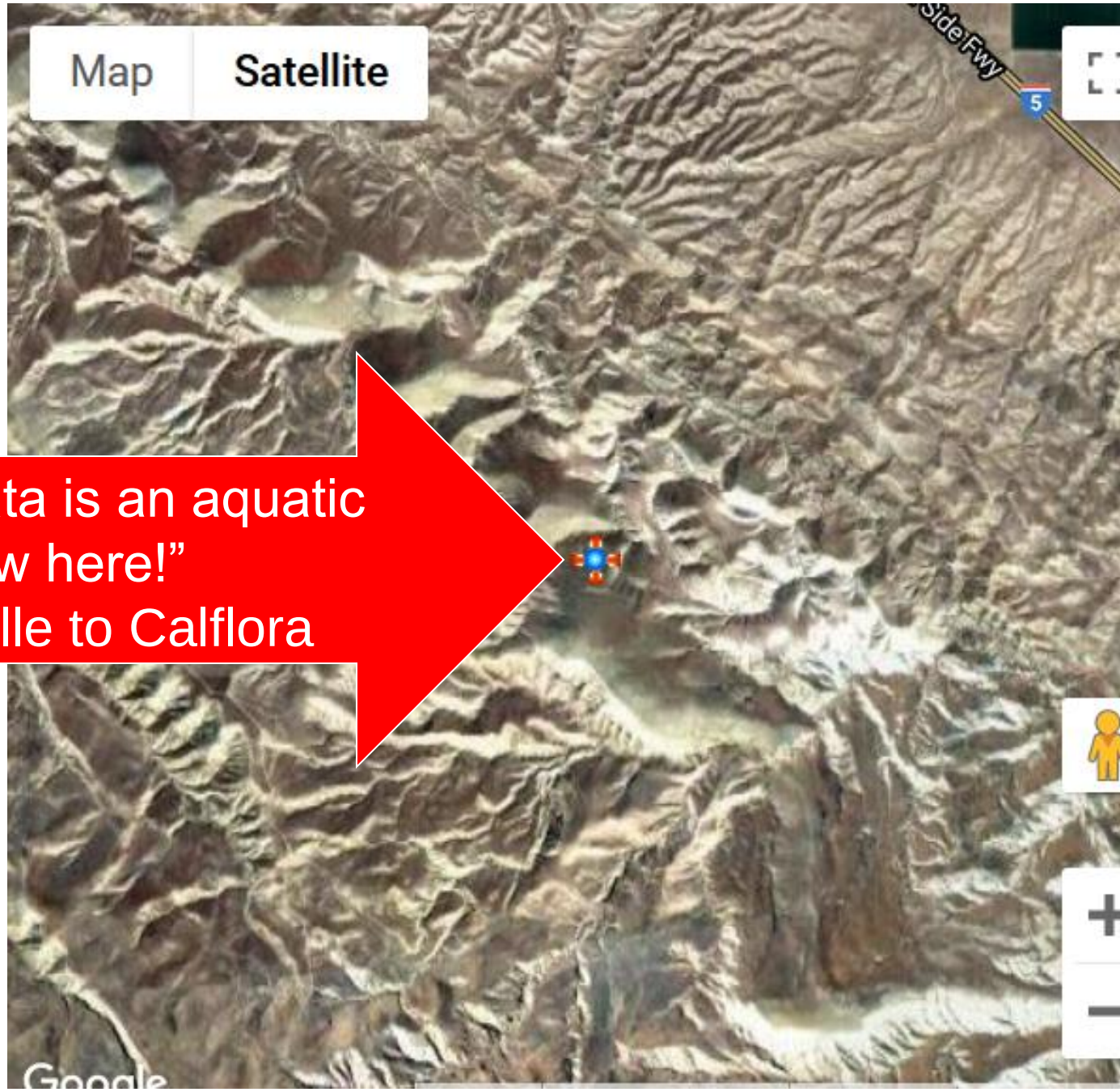
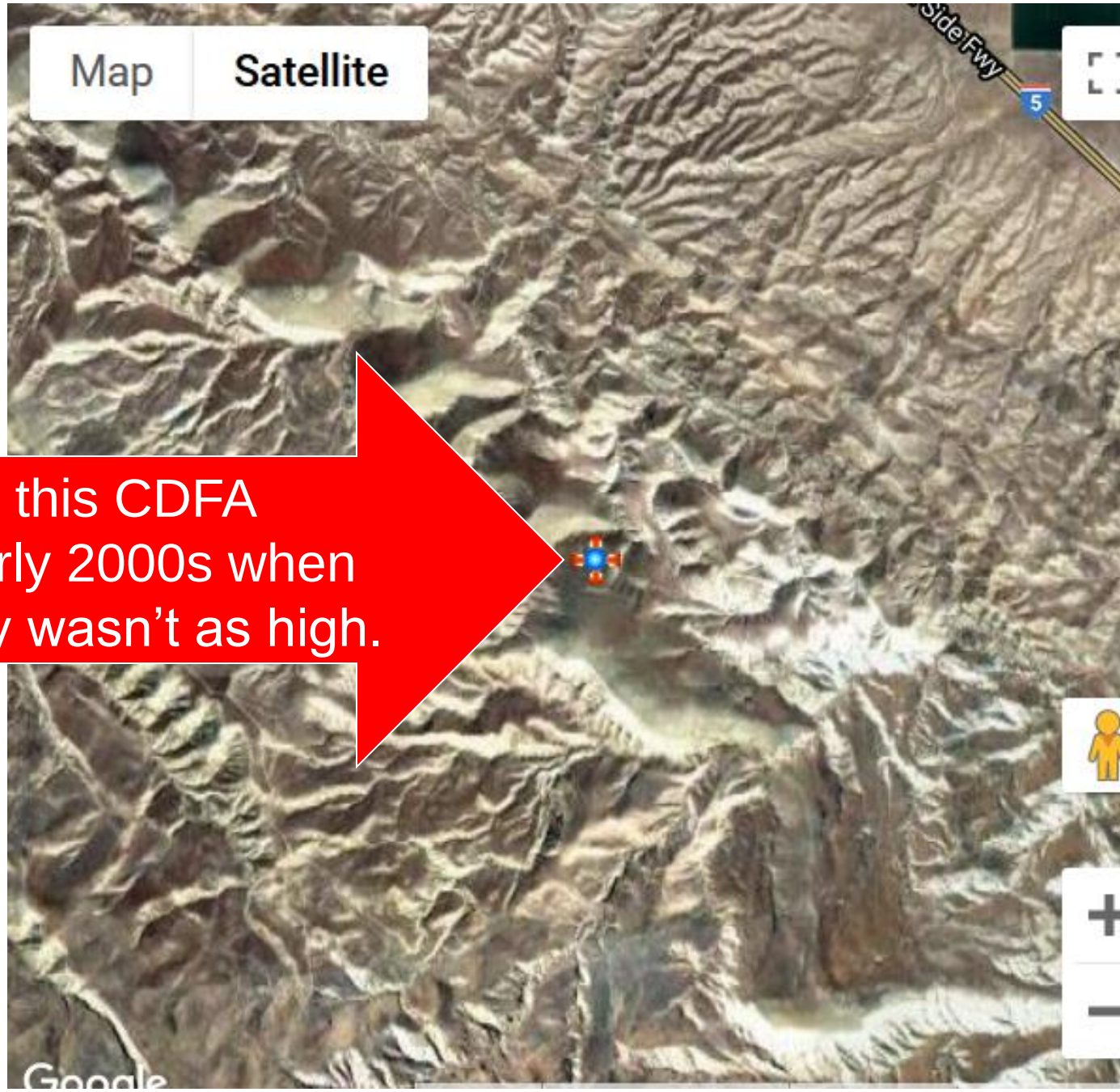


"Hydrilla verticillata is an aquatic plant; it can't grow here!"
said David Kratville to Calflora



Calflora received this CDFA dataset in the early 2000s when location accuracy wasn't as high.

Plant Name	Cortaderia selloana *Pampas grass*
Observer	Loren Jenkins PROFILE
Date	2020-09-29
County	Marin
Coordinates	37.96150, -122.58314
	LOCATION CLOSEUP
Elevation	232 meters

Tag as Postfire record

Region	WORN SPRING GRASSLANDS
Location Description	WORN SPRING
Habitat	Grassland / Open field
Gross Area	0.044 Acres
# of Plants	11 - 50

ADD A COMMENT

1 comment

2020-10-04 10:59:25.0 Andrea Williams:

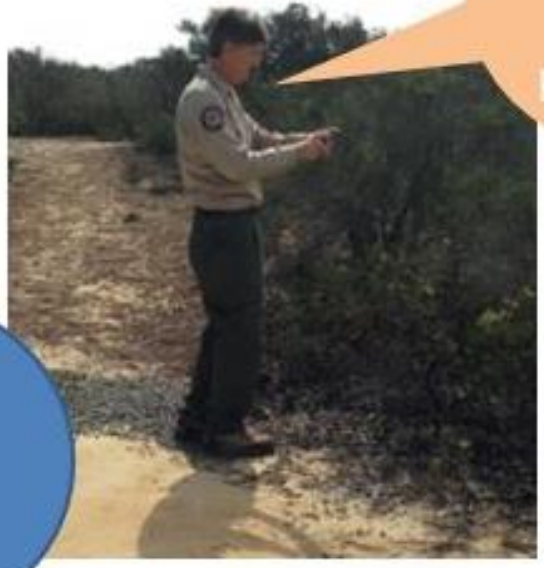
Re Cortaderia jubata: C. selloana, not C. jubata

Calflora ID	mg122294
Added	2020-09-29
Group	Marin Municipal Water District
Location Quality	HIGH (1)
Error Radius	5.6 meters

Calflora's Weed Manager (WM) is a system which enables organizations engaged in land management to track weed infestations and treatments over time.

Calflora

information on **wild California plants** for conservation, education, and appreciation



Weed Manager

- Collect data
  - spatial & tabular
  - field or office
- Personalized forms, data dictionaries
- Searchable/viewable online
- Run customized reports
- Export to any format

Weed Manager subscriptions include customized data collection forms with treatment and labor sections

Treatment Method *
Herbicide

Bio-Control Agent

Bio-Control Amount

Chemical Method
Spot Spray

Herbicide 1
Transline

Ounces of herbicide 1
50

Herbicide 2
Roundup Pro Max

Ounces of herbicide 2
40

Staff Hours (Total Person-Hours)
9

Contractor Hours (Total Person-Hours)
12

Volunteer Hours (Total Person-Hours)
0

Calflora released **Weed Manager** (WM) in 2014. There are now over 25 agencies using WM.

Use WM to track chemical treatments: subscriptions cost $2,900/year and include a (now online) training.

If you're not collecting treatment information, you don't need WM. If you are, and you'd like to generate reports e.g. DPR reports, or how much of which chemical you used on how many acres of which species and how long it took, then WM is a solution.

Thank you!
Q&A