



Weed Manger

Cynthia Powell

www.calflora.org



Agenda

Introductions & who has used Geoweed

Calflora basics

Update on Weed Manager

- approach
- features & components
- plans for next year

Using Phone App to Log Data



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Our Nonprofit's Mission

California's digital plant library provides information on wild CA plants for conservation, education, and appreciation

- provides this info in readily usable electronic formats
- serve public information needs related to scientific study, land management, environmental analysis, education, and appreciation of CA plant life



Calflora database contains

- > 10,000 native and introduced species
- > 800,000 plant location observations (points, lines, and polygons)
- > 30,000 relationships between old and new plant names
- > 300,000 plant photos

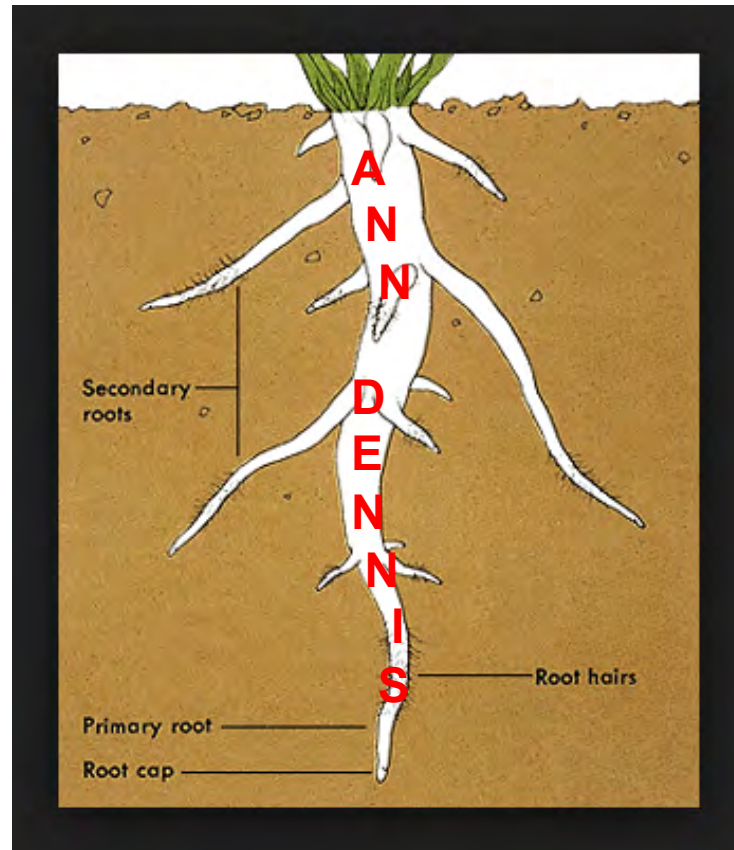
For 36,000 unique Calflora e-visitors each month (1,200/day)



Of those 10,000 native and introduced species in CA,

- 20% of species in CA are not native
- 20% of the data contributed to Calflora are also not native

Calflora started as Ann Dennis sharing a text file of CA plants in 1994



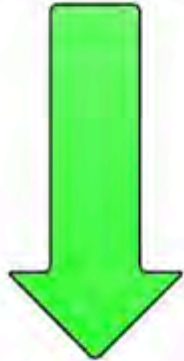
And became a 501(c)3 non-profit in 2001



Data In

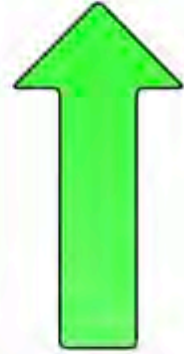
- > 500 Professional Botanists
- > 1000 Amateur Botanists
- > 1800 Other Observers

- > 100 Institutions



Data Out

- Researchers
- Students
- Botanists
- Ecologists
- Land Managers
- Conservationists



Calflora Database

Mona Robison's records

Calflora Observation Hotline v. 1.32 Search Links Markers Map Background LOGIN - REGISTER

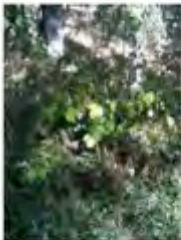

Scientific Name report Common Name Plant Status Plant List Date e.g. 2012-12-31 After Before

Observer Source in rectangle in map area records with photos

Group Association Include checklists

Column Set customize Order by

573 records: Click on ID to select an observation. Click on a photo to see it larger.

ID	Plant	Photo	Observer	Source	Observation Date	County	Site	Description
cb018855	<i>Rubus discolor</i> Himalayan blackberry		Ramona Robison	California State Parks	2013-08-24	Amador	Indian Grinding Rock State Historic Park	Dense patches in main drainage way going from park entrance, around parking area and west through meadows.
cb018856	<i>Hypericum perforatum</i> Klamathweed		Ramona Robison	California State Parks	2013-08-24	Amador	Indian Grinding Rock State Historic Park	Scattered plants along trails, especially south nature trail, and around meadow edges.

Family

Plant List
 none

Status
 invasive (Ca-IPC)

Lifeform
 any

Category
 any

Bloom month
 any

Associated with

SEARCH

in polygon

DRAW A POLYGON

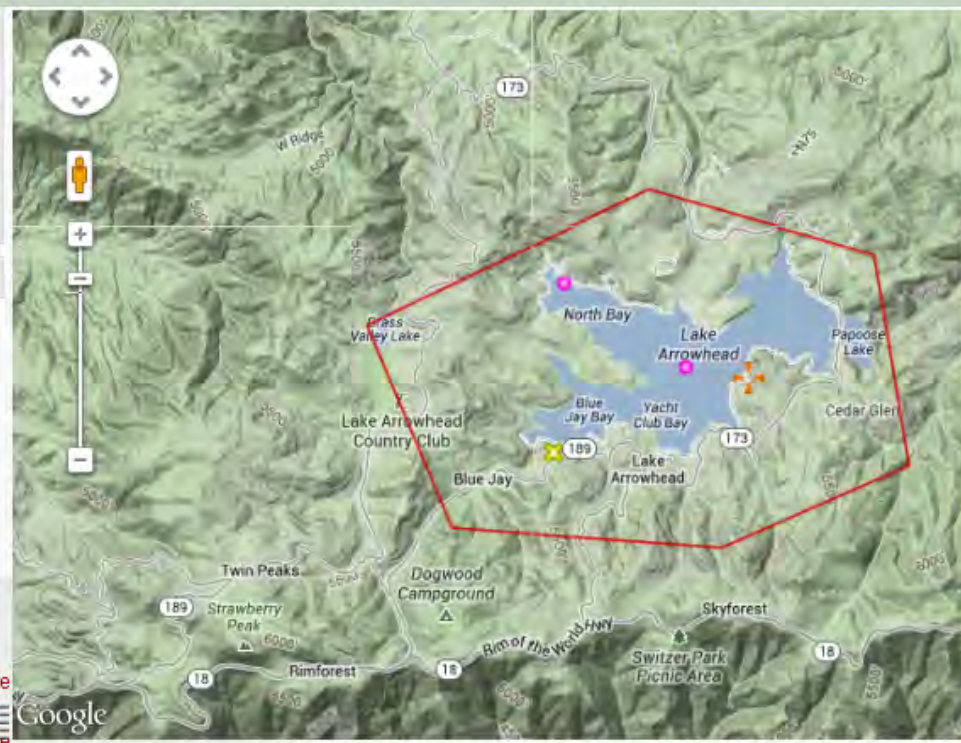
start drawing

stop drawing

edit shape

clear

POINTS



14 PLANTS

<i>Agrostis stolonifera</i>	Redtop	1 record (1 CCH)	Perennial herb	invasive non-native	
<i>Bromus diandrus</i>	Ripgut brome	1 record (1 CCH)	Annual herb	invasive non-native	
<i>Bromus hordeaceus</i>	Soft chess	1 record (1 CCH)	Annual herb	invasive non-native	POACEAE
<i>Bromus tectorum</i>	Downy chess	2 records (2 CCH)	Annual herb	invasive non-native	POACEAE
<i>Convolvulus arvensis</i>	Field bindweed	1 record	Perennial herb, Vine	invasive non-native	CONVOLVULACEAE
<i>Dactylis glomerata</i>	Orchardgrass	1 record (1 CCH)	Perennial herb	invasive non-native	POACEAE
<i>Festuca arundinacea</i>	Reed fescue	1 record (1 CCH)	Perennial herb	invasive non-native	POACEAE
<i>Festuca myuros</i>	Rattail sixweeks grass	1 record (1 CCH)	Perennial herb	invasive non-native	POACEAE
<i>Myriophyllum spicatum</i>	Water milfoil	2 records (2 CCH)	Perennial herb	invasive non-native	HALORAGACEAE



Calflora partnership model

Calflora project best practices



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OATS

O = Occurrences – species point data

A = Assessments –time-changing info

% cover

size of polygon

plant phenology

T = Treatments – herbicide, hand-pull, mow, etc.

S = Surveys – canvass defined area to seek target plants; includes absence data

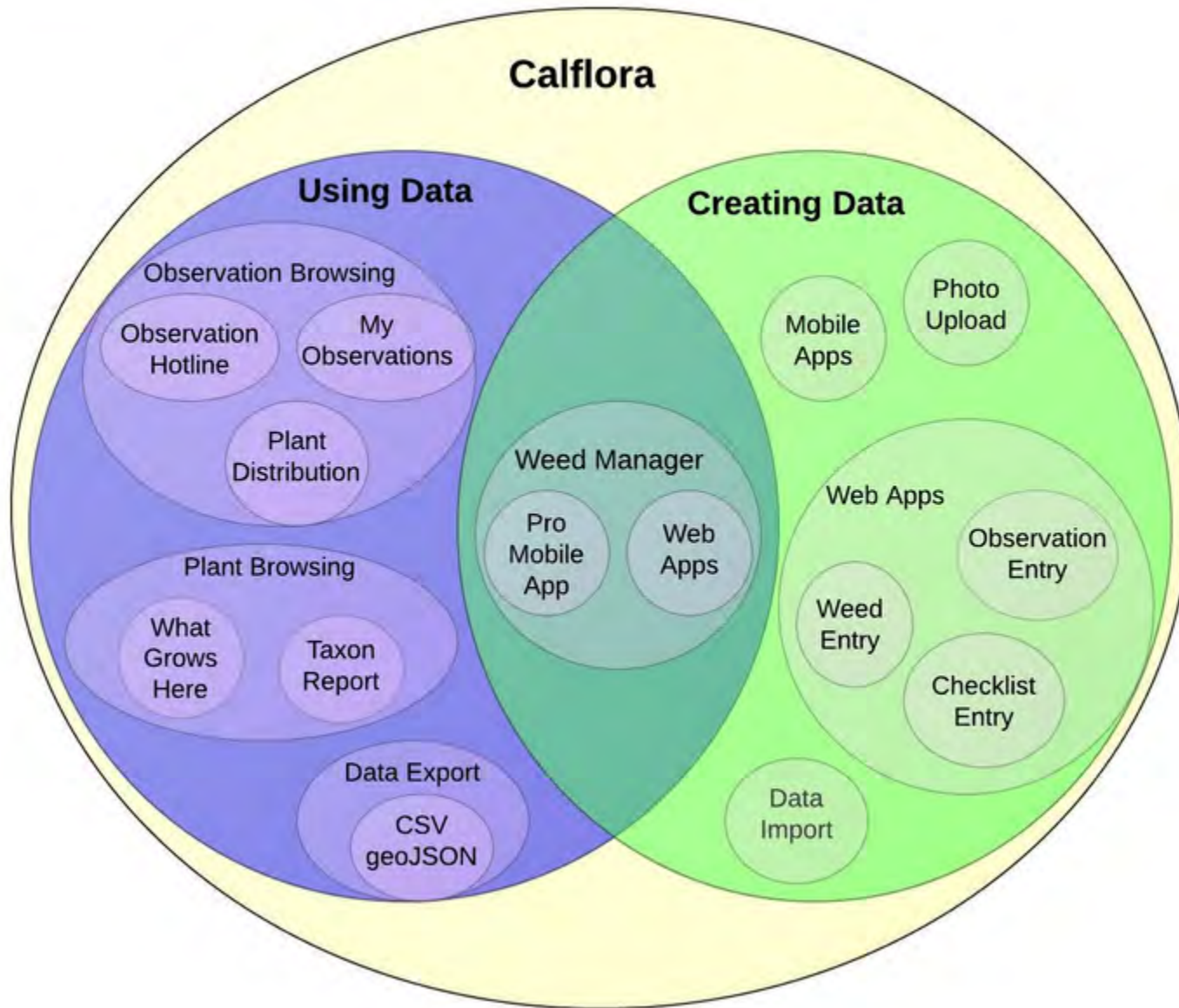




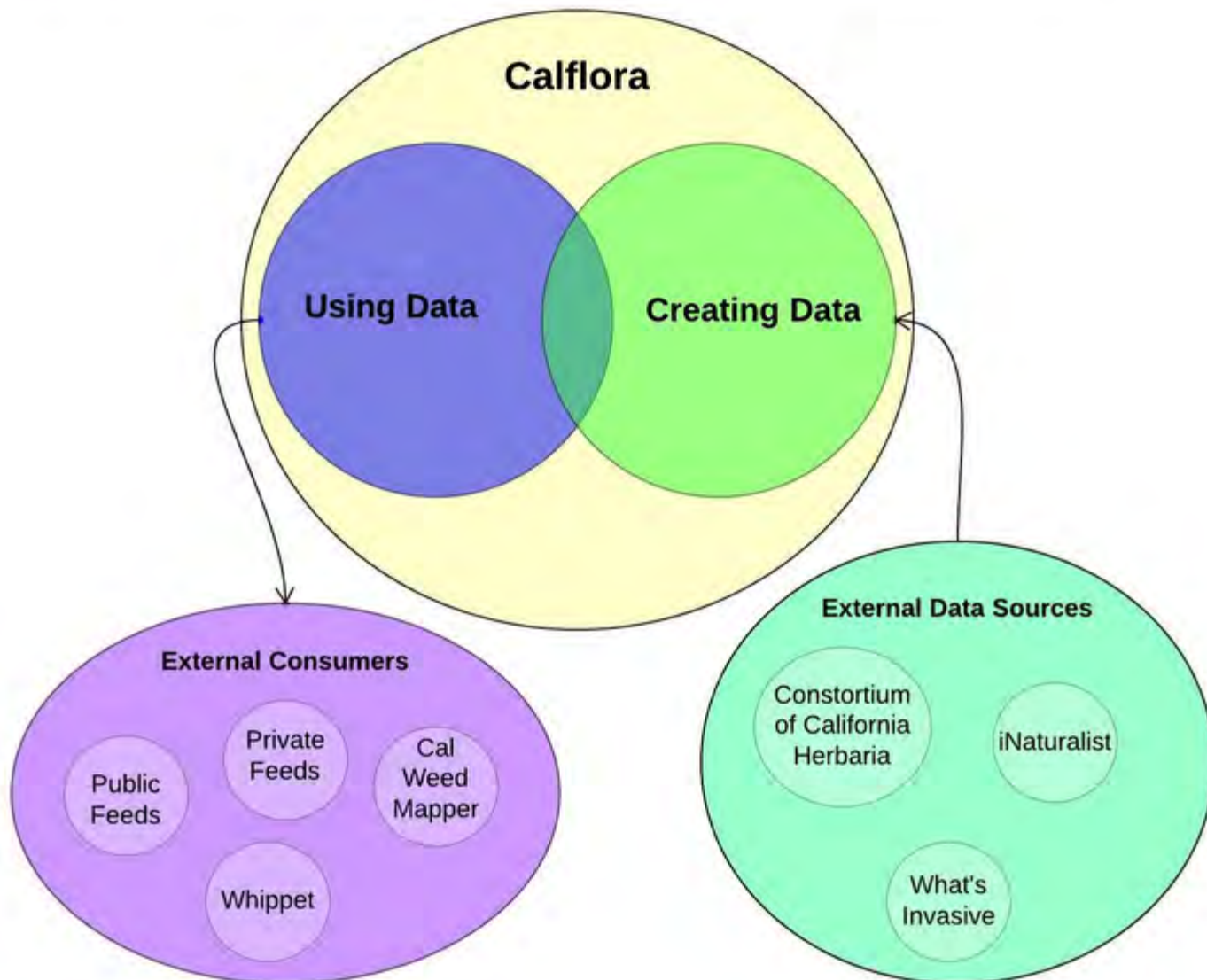
Calflora

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

<http://www.calflora.org/entry/mgr/diagrams.html>



Data Sharing with Partners



About Weed Manager

- **Weed Manager** is a system to track weed infestations and treatments over time.
- It is an evolution of current Calflora tools for tracking weeds.
- Fully built out, Weed Manager will have feature parity with desktop Geoweed, with some improvements:
 - Configurable Field Sets
 - More Search and Report options

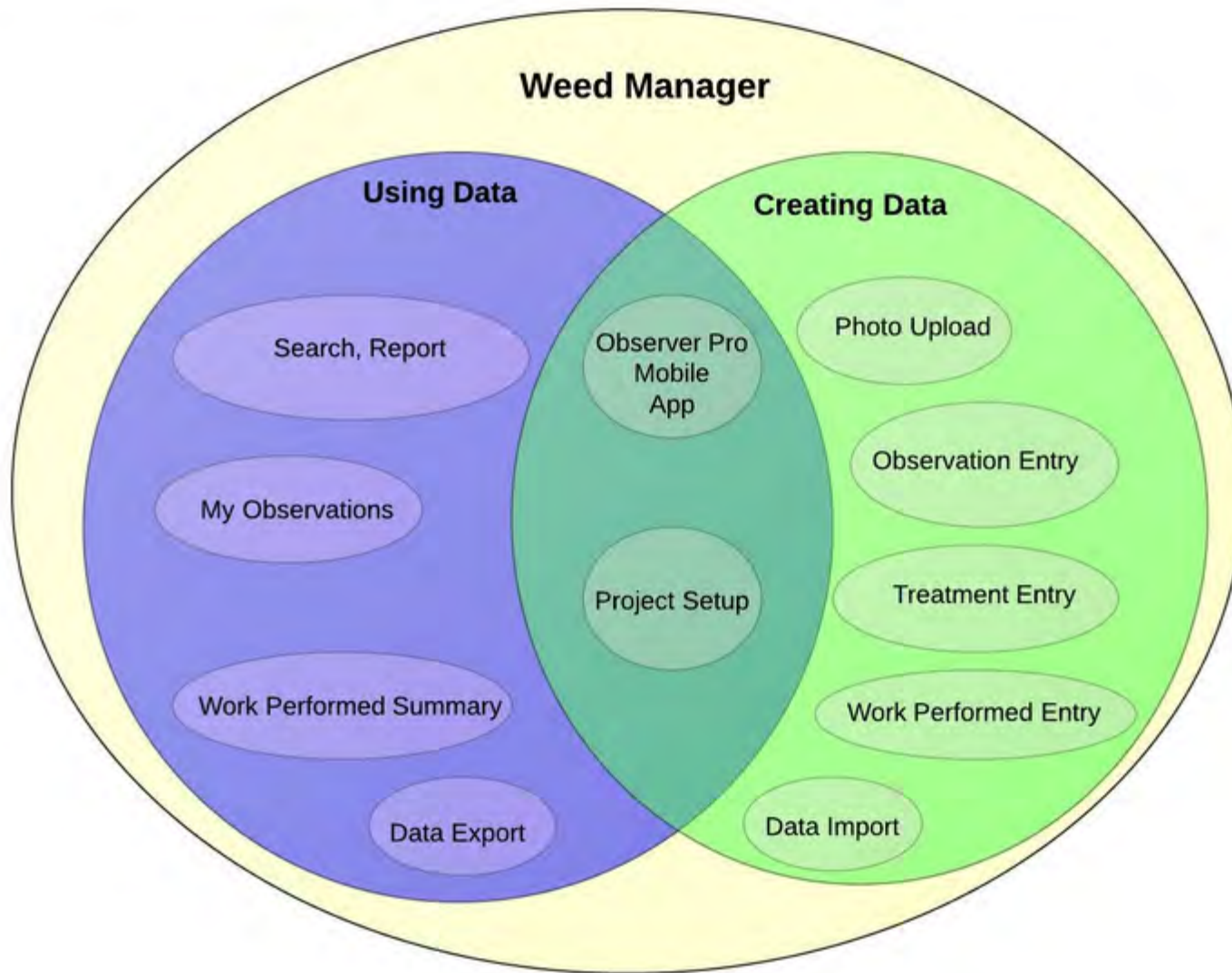
Anticipated Benefits of Using Weed Manager

- **Flexibility with respect to data collection.** Collect the data you need for a project, no more and no less.
- **Ease of data exchange.** Core data fields and the core methodology remain standard across all organizations who use the system, thus enabling data exchange and integration.

New data is immediately visible in the context of historical data -- the 2 million plant observations available now in Calflora.

- **New generation data collection devices.** A smart phone or tablet assisted by a GPS puck (eg. Garmin Glo) is a strong platform for this kind of work, with low maintenance cost (phone contract not required).
- **Advantages of web technology.** Data can be seen and worked on by organization members no matter where they are.

Overview of Weed Manager Tools

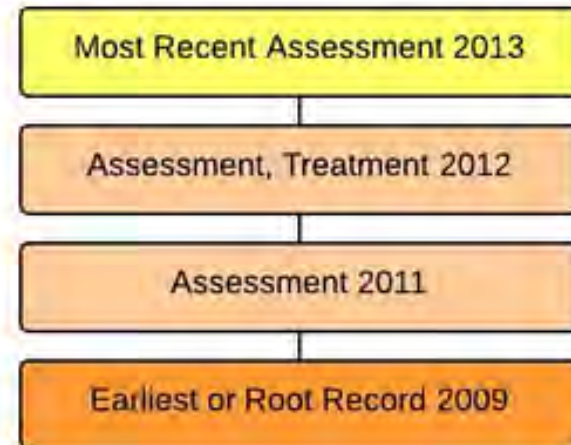


Observation Entry in Weed Manager

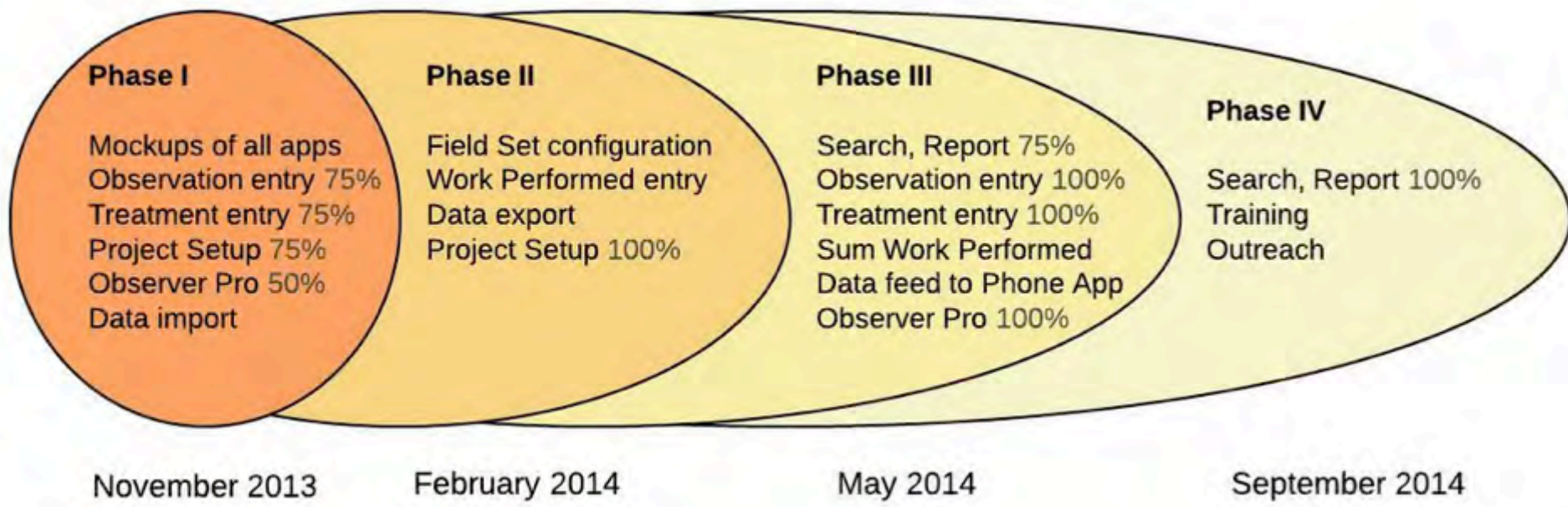
Observation Entry has some new features:

When editing a record, view the **assessment and treatment history** of that record.

Make a new record part of the **assessment history** of a previously known occurrence.



Aka stack





With Cal-IPC, we are applying for a STDP grant (Special Technology Development Program, through the forest service).

We need \$35K matching funds, non-federal. If your organization would like to contribute \$2,500-\$5,000 toward that matching funding, you receive a discount on your annual per organization usage fee.



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New Observation

- OBSERVATION
- ASSESSMENT
- TREATMENT



Slim oat
Avena barbata



Location Description
Enter some location info

Not asleep yet

Habitat

in bed

Notes

Additional notes

q w e r t y u i o p


a s d f g h j k l Next

z x c v b n m , .

7123 / - :)

New Observation

- OBSERVATION
- ASSESSMENT**
- TREATMENT



Slim oat
Avena barbata

Number of Plants

- 1
- 2-10
- 11-100
- 101-1000
- 1001-10,000
- > 10,000
- 0

Percent Cover

- 0-1
- 1-5
- 5-25
- 25-50
- 50-75
- 75-100
- 0

Infected Area Sq. Meters

22

Gross Area Sq. Meters

55

Distribution

New Observation

- OBSERVATION
- ASSESSMENT
- TREATMENT**



Slim oat
Avena barbata

Treatment Method

- Shovel shear
- Handpull
- Flower / seed removal
- Mow
- Lop
- Herbicide

Herbicide

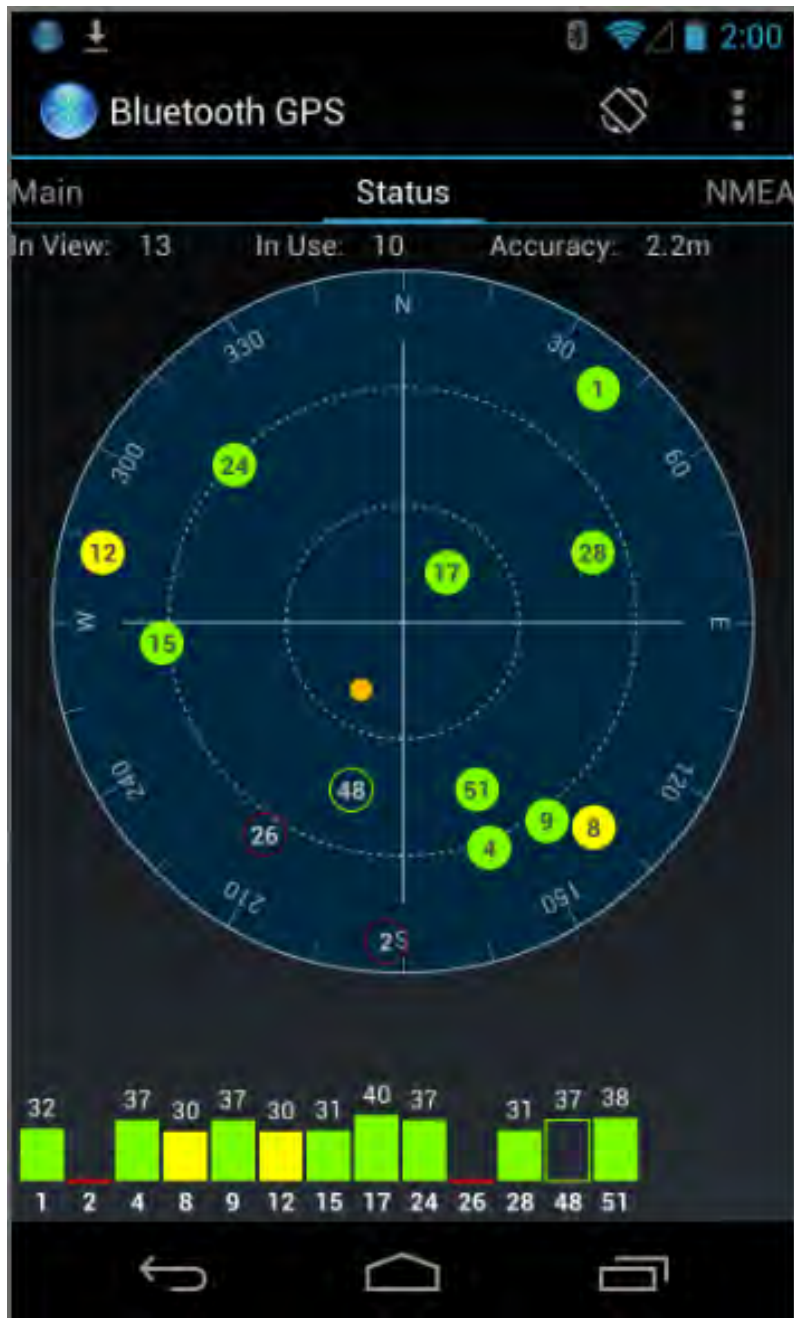
- Aminopyralid
- Chlorsulfuron
- Glyphosate
- Imazapyr
- Rimsulfuron
- Triclopyr

Concentration (Percent)

Percent Treated

- 5
- 10
- 15
- 25

Satellites and Accuracy



Dual XGPS150A

Universal Bluetooth® GPS receiver for portable devices



Front



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THANK YOU! QUESTIONS?