

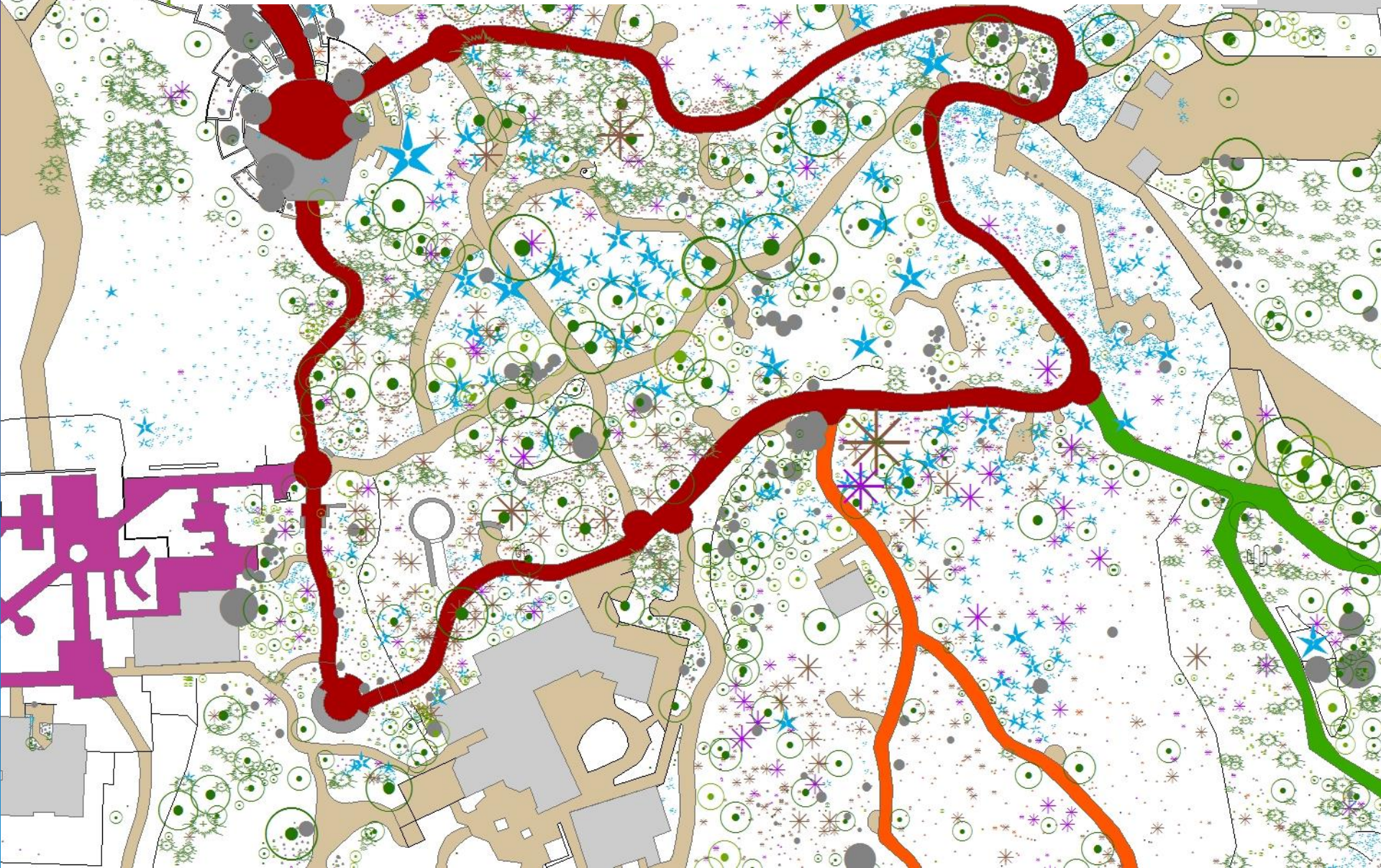
# Collector for ArcGIS for Maintaining Botanical Garden Plant Records

Veronica Nixon - Desert Botanical Garden  
Steve Gensler - San Francisco Botanical Garden





# Why we map our plants







Bed Inventory



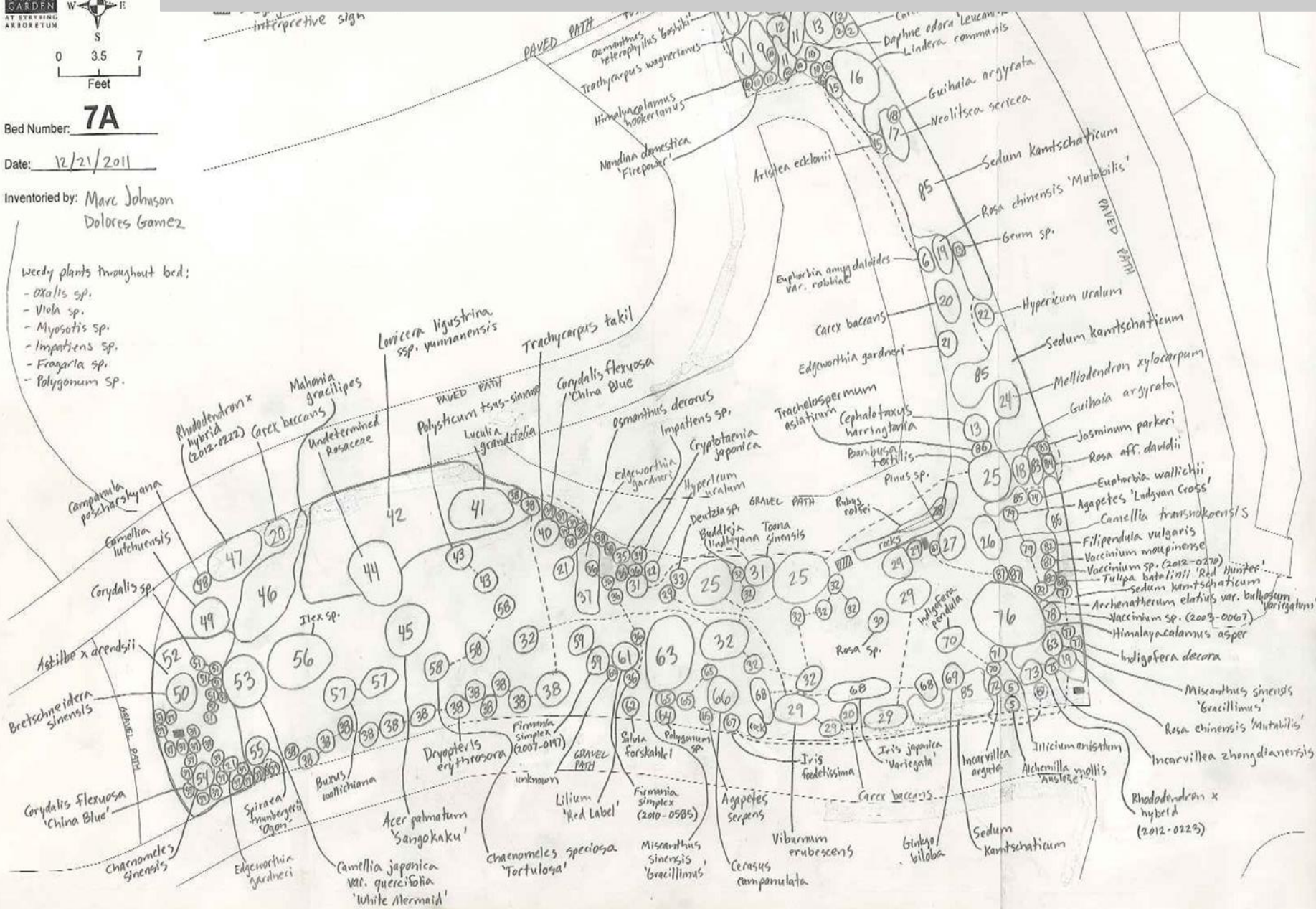
Bed Number: **7A**

Date: 12/21/2011

Inventoried by: Marc Johnson  
Dolores Gomez

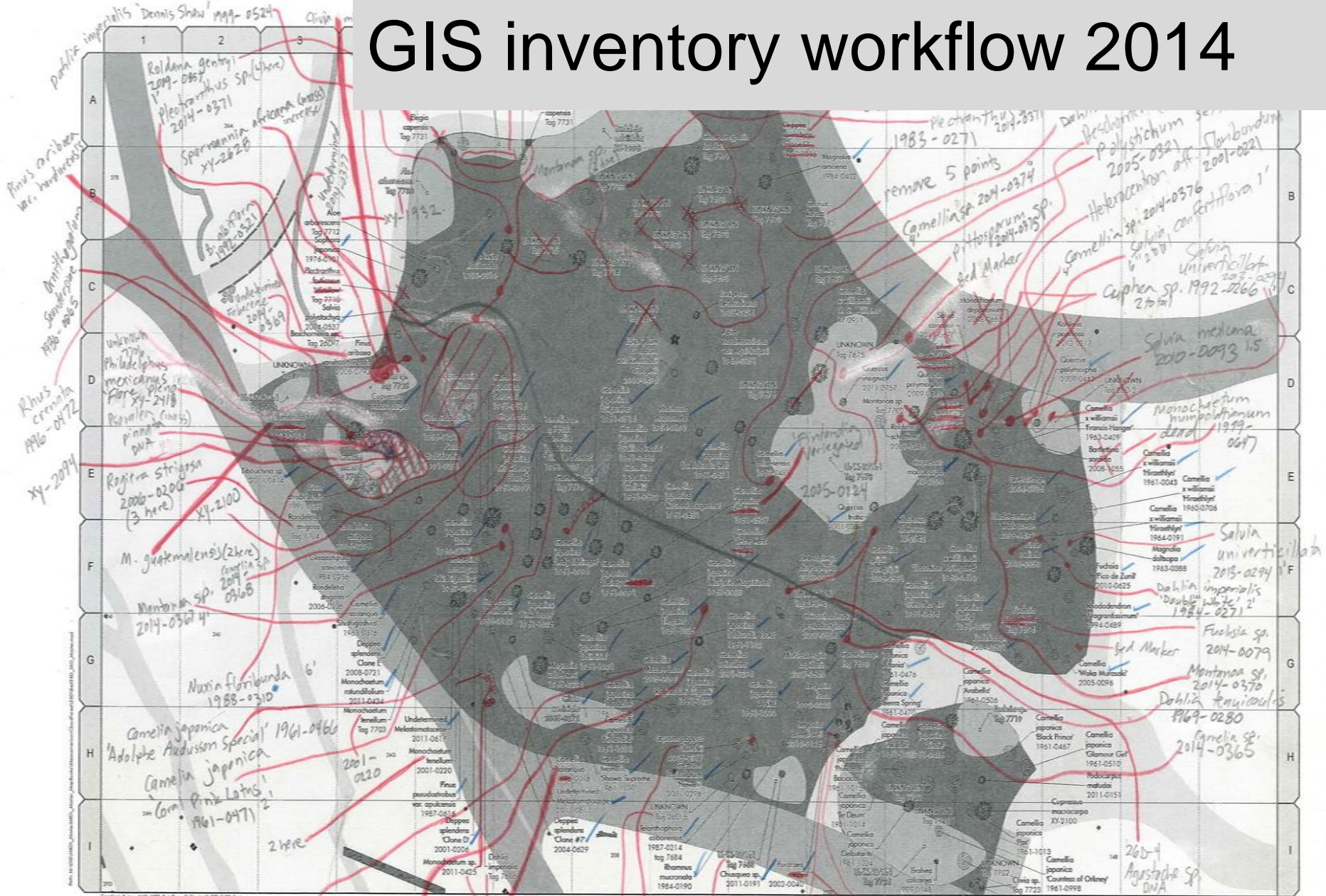
- Weedy plants throughout bed:
- Oxalis sp.
  - Viola sp.
  - Myosotis sp.
  - Impatiens sp.
  - Fragaria sp.
  - Polygonum sp.

# Traditional inventory workflow

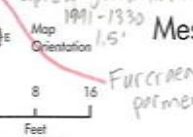
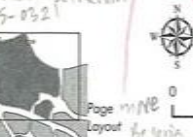
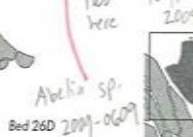




# GIS inventory workflow 2014



Data Collected 09/25/12 - 10/05/12  
 Inventory date 3/4/14  
 by MJS DA  
 Map Updated 1/30/2014  
 TO GIS 7/17/14



Mesoamerican Cloud Forest  
**Bed 26D**  
 Page 1120





# How DBG uses the Collector app





# Planting bed inventory

Plant registrar and GIS specialist work together



# Plant symbols

A set of visually distinct types of plants that can be recognized easily by new volunteers



Agavaceae



Carnegiea gigantea



Opuntia



Ferocactus



Other Cactaceae



Tree



Shrub



Larrea tridentata



Other

# Inventory symbols



Done!

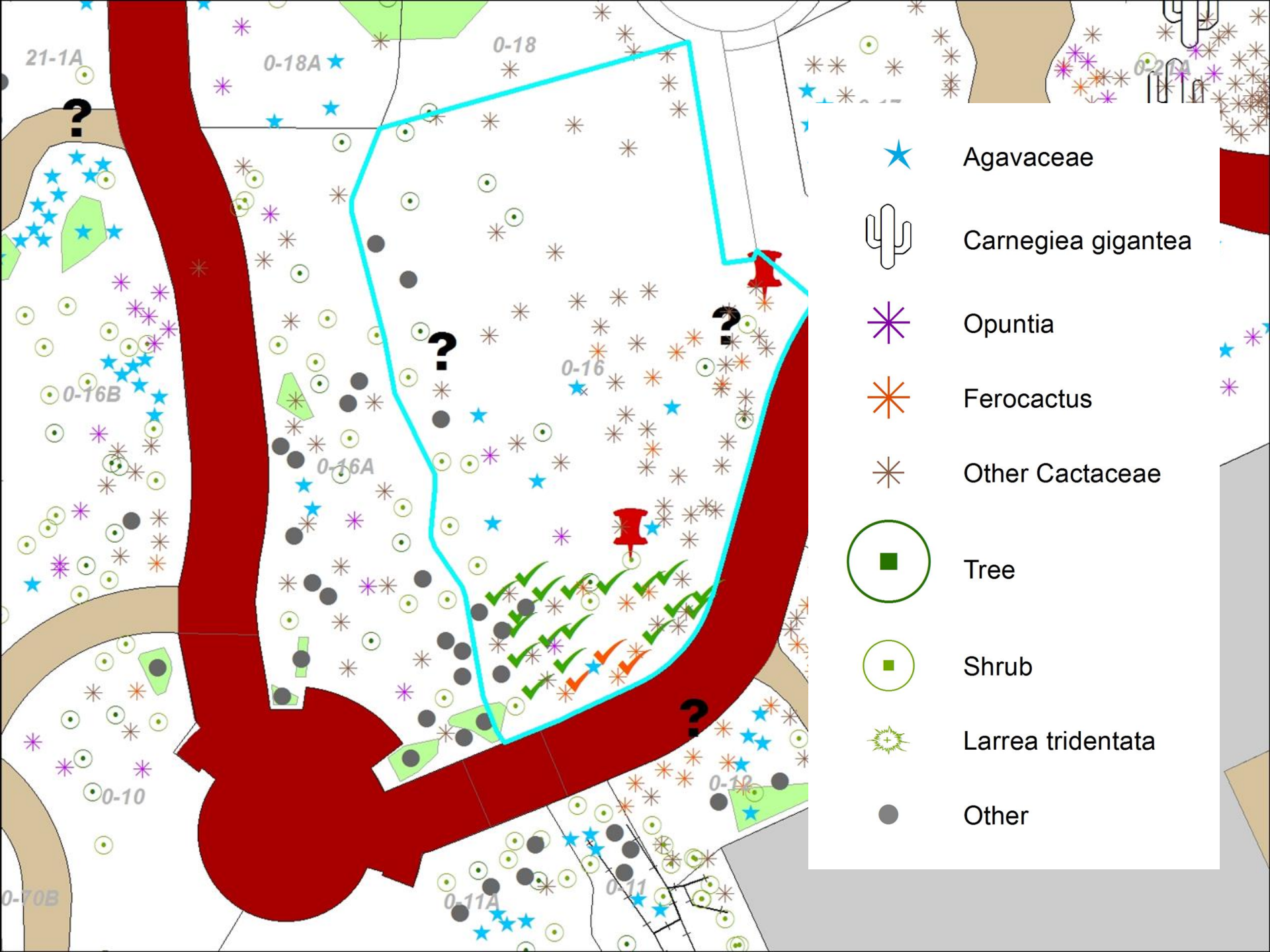


Just needs a new tag printed



Needs additional research/work





21-1A

0-18A

0-18

0-20A

0-16B

0-16

0-16A

0-10

0-12

0-11A

0-11

0-70B

- ★ Agavaceae
- ☪ Carnegiea gigantea
- ★ Opuntia
- ★ Ferocactus
- ★ Other Cactaceae
- Tree
- Shrub
- ★ Larrea tridentata
- Other

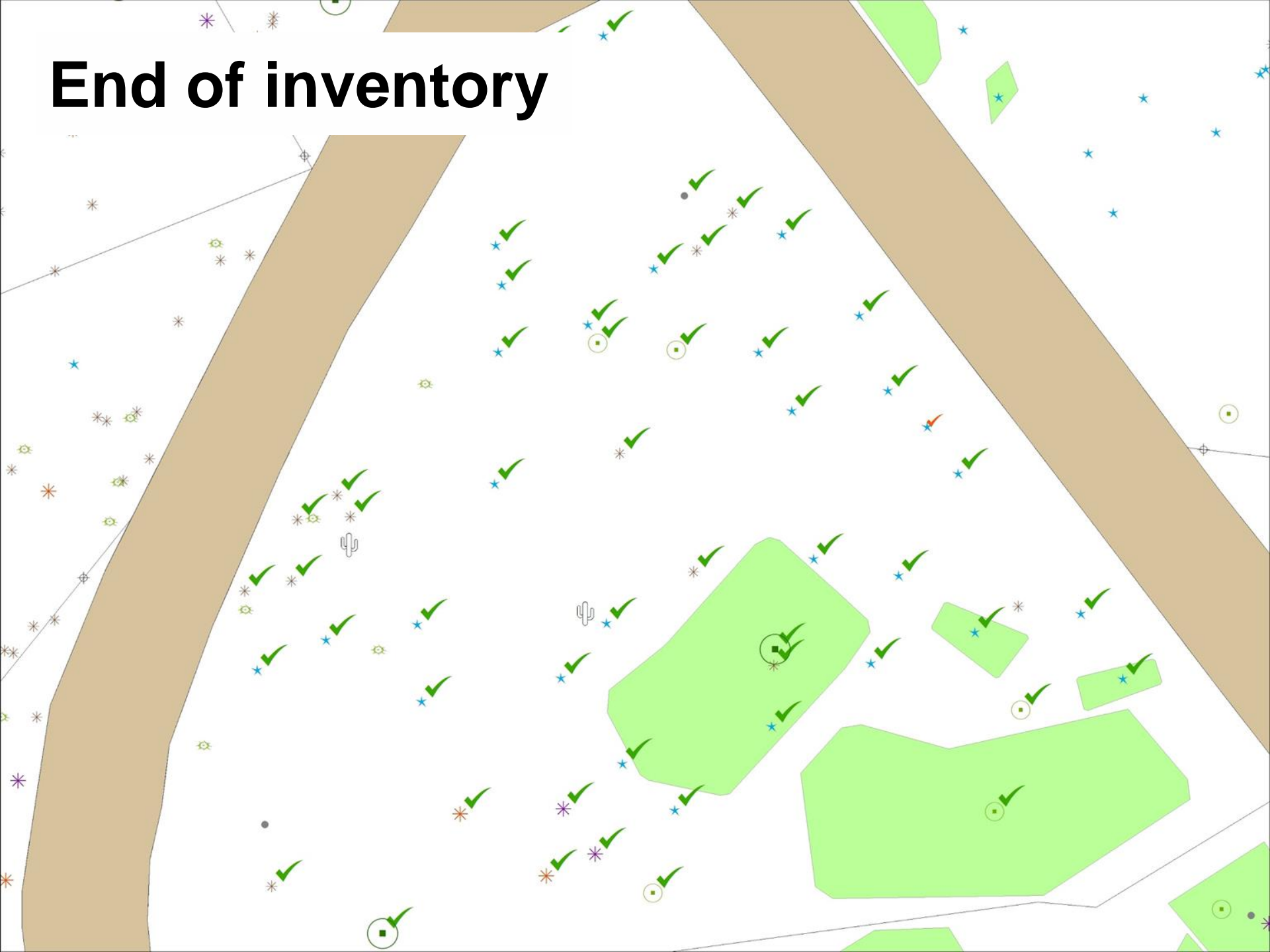


# Start of inventory...





# End of inventory





# How SFBG uses the Collector app





# Plant Detective Program

A serene garden scene featuring a traditional wooden bridge with a railing, crossing a calm pond. The bridge is surrounded by lush greenery, including large trees with thick trunks and various plants. The water in the pond reflects the bridge and the surrounding foliage. The overall atmosphere is peaceful and natural.

- **What is the program?**
- **Who are the detectives?**
- **How does the program work?**
- **Why?**



2016





Red indicates plants which have not been inventoried. Allows for Plant Collections staff to quickly pick up where they left off.



? 1999-0452 \*  
*Cyathea latebrosa*

Details









? Location  
 X: 5,992,439.29 Y: 2,108,347.68

1999-0452 \*

Inventoried
Research
Scientific Name
<i>Cyathea latebrosa</i>
Primary Common Name
Plant Center ID
1999-0452-05342
Accession Number
1999-0452
Qualifier
Tag No.

Question mark indicates the plant needs further research.

# Inventory symbols

	<b>No</b> Plant Center
	<b>Yes</b> Plant Center
	<b>Not Found</b> Plant Center
	<b>Research</b> Plant Center
	<b>New Planting</b> Plant Center
	<b>New Mapping</b> Plant Center
	<b>Gardener Update</b> Plant Center
	<b>Certified</b> Plant Center

**No** - We have not set eyes on this plant since the inception of the Plant Detective program.

**Yes** - Yes! A Plant Detective has seen this plant!

**Not Found** - Plant is either not found or dead.

**Research** - Plant needs attention by Plant Collections staff.

**New Planting** - Exactly what it means.

**New Mapping** - Recently mapped, but accession is in the Plant Collections database.

**Gardener Update** - Update by Garden Staff.

**Certified** - Reviewed by Plant Collections. Location and information is correct and has photo documentation.



# The take-aways



# **Collector app shakes things up!**

- **No more paper!**
- **A tool for staff**
- **Teamwork**
- **Streamlines workflow**
- **Takes the office outside where it should be!**
- **No programming required!**



## Challenges that remain

- Integration of GIS and plant database
- Staffing and volunteers
- Spatial awareness
  - Dynamic labels
  - Dynamic Scale Bar
  - Rotate the view within the app
- Edit location vs. edit attributes
- Tap sensitivity

*Things Esri could help us with?*



# Questions?

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