# Florida Natural Areas Inventory

Tracking Florida's Biodiversity





# Mission

Collect, interpret, and disseminate ecological information critical to the conservation of Florida's biological diversity



# **Program Background**

- established in 1981 as part of TNC
- now part of Florida State University, FREAC
- entirely contract-funded
- long term relationship with Florida DEP and FWC
- part of a nationwide network of Natural Heritage Programs



Lake Wales Ridge WEA



# **FNAI** Staff

### Special expertise:

- botany
- herpetology
- ornithology
- entomology
- coastal ecology

- community ecology
- computer data bases and GIS
- conservation and environmental land use planning





## **Rare Species Records**

- Scientific and common names
- Global and state rarity ranks
- Federal and state legal status
- Location information
- Description of the site
- Specific information about the plant or animal
- Date of observation
- Surveyor

### **FNAI and Invasive plants**

- Started building a database in 2003
- Primarily funded by FWC's Invasive Plant Section
- more than 209,000 observation records on more than 2000 managed areas
- On-line data forms
- Downloadable data



### atural Areas

#### Home

#### Species & Communities

Field Guides **Biodiversity Matrix** Tracking List Natural Communities Ecological Surveys Submit Data

#### Conservation Lands

Interactive Map FL Forever Projects Map Summary Report (PDF)

Invasive Species IMapInvasives

Planning & Analysis Florida Forever

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#### Data Requests FCT Guidelines

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1018 Thomasville Road Suite 200-C Tallahassee, FL 32303 Phone: (850) 224-8257 Fax: (850) 681-9364

### invasive species

STAFF

ABOUT FNAI

Controlling invasive, non-native plants is essential to the protection of Florida's biodiversity. Introduced species can displace native plants and animals, change the structure of natural communities, and impact the ecological functions of ecosystems.

#### **iMapInvasives**

To increase access to invasive species data, facilitate data management, and simplify data summary FNAI has helped to develop the iMapInvasives web application, a national, GIS-based, invasive species mapping tool. The core of the Florida iMapInvasives dataset is the Florida Invasive Plants Geodatabase (FLInv), a spatial database of invasive plant occurrences on all of the state's public conservation lands which FNAI built starting in 2003. The FLInv database contains approximately 200,000 records compiled from data submitted by resource managers and supplemented by FNAI field surveys. FNAI hopes to continue to build on this dataset with submission of data to iMapInvasives. Biologists, land managers, amateur naturalists and all other interested parties are encouraged to join in this effort.



CONTACT US

PARTNERSHIPS

Please visit the iMapInvasives website for more information. Unregisted users can view basic plant distribution maps or register for a free account which will allow viewing of precise location data and submission of new data.

Benefits of online mapping of invasive species in iMapInvasives:

- Simplifies sharing of data across agency boundaries
- Streamlines the tracking of management progress
- · Supports the ability to summarize species distribution and abundance

CLICK HERE to log into the FL iMapInvasives site or register for a new account.

#### Florida Specific Resources

FL iMapInvasives Terrestrial Plant Observation and Assessment Form (49 KB).

FL iMapInvasives Terrestrial Plant Observation and Assessment Data Dictionary (Trimble) (7 KB).

Please Note: FNAI shares Florida invasive plant data with the University of Georgia's Early Detection and Distribution Mapping System (EDDMapS), if you send data to FNAI or submit it to iMapInvasives, you don't have to submit it to EDDMapS too.

#### Viewing and Downloading Existing Data

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(18.1 MB)

(32.5 MB)

(37 KB) (38 KB)

File geodatabase with metadata	FLINV_FileGDB_20110517.z
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Polygon feature metadata	FLINVpoly_20110517.htm	(38 KB)	

Name in Data Dictionary	Order in Data Dictionary	Optionality	Record Type in iMap	Name in iMap	Order in iMap	Description	Values / Format
SurveyDate	1	Required	Observation	Step 5 - When	5	date data were collected	Abana ber alle
Surveyor	2	Required	Observation	Step 2 - Who	2	name of the person performing the invasives survey	Last name, first name
surveysite	3	Optional	Observation, Assessment, or Treatment	Project Name	3	iMap Project, MA name, or Location	
eval_type	4	Required	Assessment	Evaluation Type	6	type of visit to site	Initial - first observation and assessment of a species in that spot Revisit - observations/assessments on subsequent visits Pre-treatment - only an observation /assessment taken directly before treatment is applied Post-treatment - observation /assessment and evaluation of the targeted invasive species post-treatment
Species	5	Required	Observation	Step4 - What (Species)	4	name of the invasive exotic plant.	Scientific name
Distributn	6	Required	Assessment	Plant Distribution	13	pattern or arrangement of the plants within the infested acreage	Single plant or clump - One individual plant or one small clump of a single species. Scattered plants or clumps - Multiple individual plants or small clumps of a single species scattered within the gross area infested. Scattered dense patches - Dense patches of a single species scattered within the gross area infested. Dominant cover - Multiple plants or clumps of a single species that occupy a majority of the gross area infested. Dense monoculture - Generally a dense stand of a single dominant species that not only occupies more than a majority of the gross area infested, but also

l Fores



# Introduction to *i*MapInvasives

A collaborative web-based solution for invasive species data aggregation, mapping, and analysis





The Public Maps display distribution information for featured invasive species by watershed or political jurisdiction (e.g. county)

- Read about the iMapInvasives Project and how your state can participate in the **Service** section.
- Read about the functionality available to registered users in the **Functionality** section.
- Read about features currently under development in the Future Plans section.
- If you have comments or questions on the project, please Contact Us.

#### Participating States

Arizona	Public Map	Login
Florida	Public Map	Login
New York	Public Map	Login
Oregon	Public Map	Login
Vermont	Public Map	Login
Virginia	Coming Soon	Coming Soo

#### States Planning to Participate Soon

#### Pennsylvania

Contact: Jeff Wagner Director Pennsylvania Natural Diversity Inventory 800 Waterfront Drive Pittsburgh, PA 15222-4718 412.586.2392



The Nature Conservancy

iMapInvasives geotracking invasive exotic species

*i*MapInvasives is an online, GIS-based, all-taxa mapping tool allowing natural resources mangers and other professionals with invasive species responsibilities the ability to collect, manage, and analyze invasive species data.

- Designed specifically for land managers
- Manage observation / assessment information
- Manage survey information (including absence data)
- Manage treatment data
- Sophisticated GIS and spatial analysis capabilities

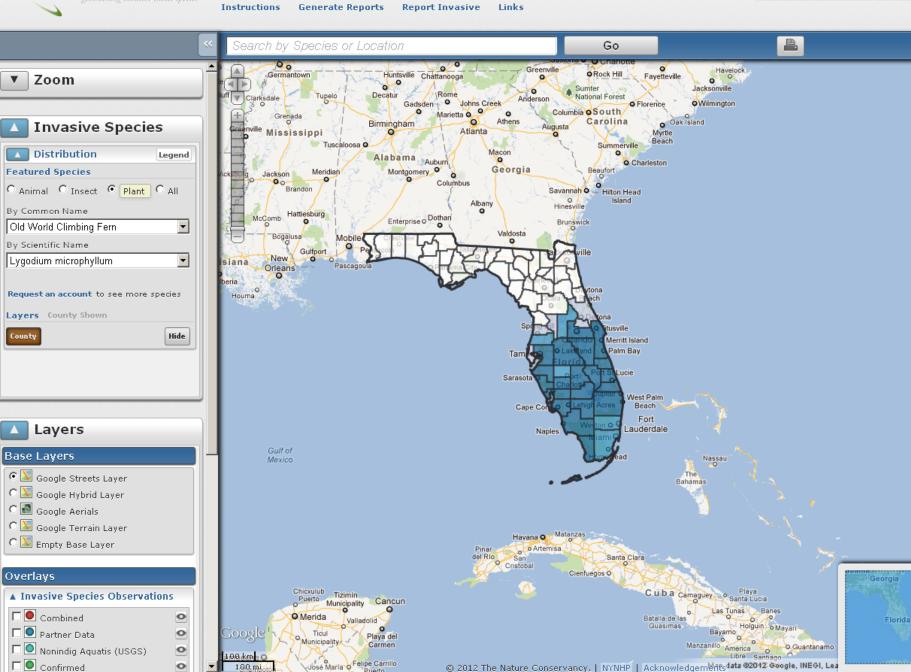
- Wide array of on-demand reports
- Batch uploading for partner organizations
- Early detection watch lists and email alerts
- Mobile web site for any webcapable mobile device

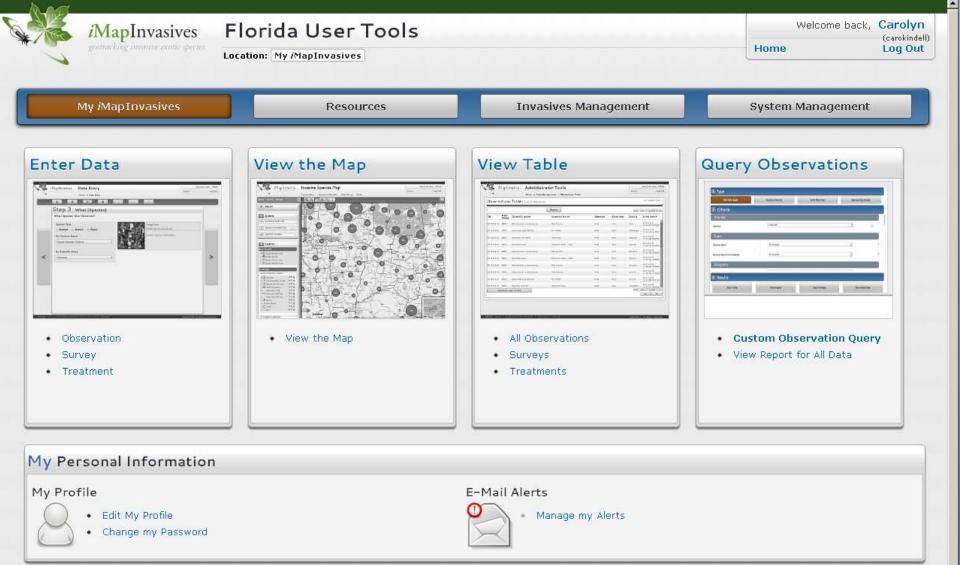
Florida Invasive Species Public Map

*i*MapInvasives

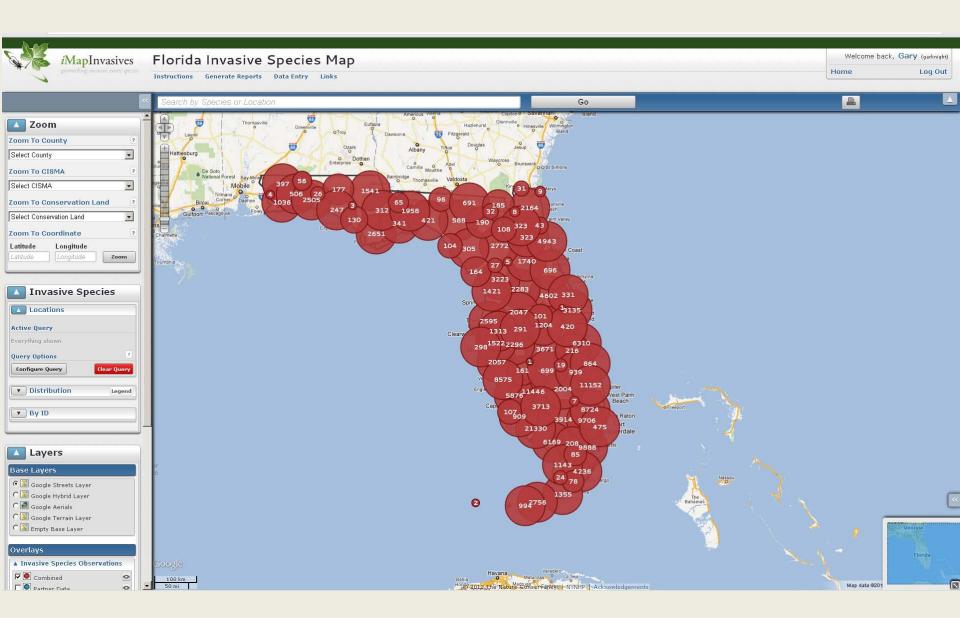
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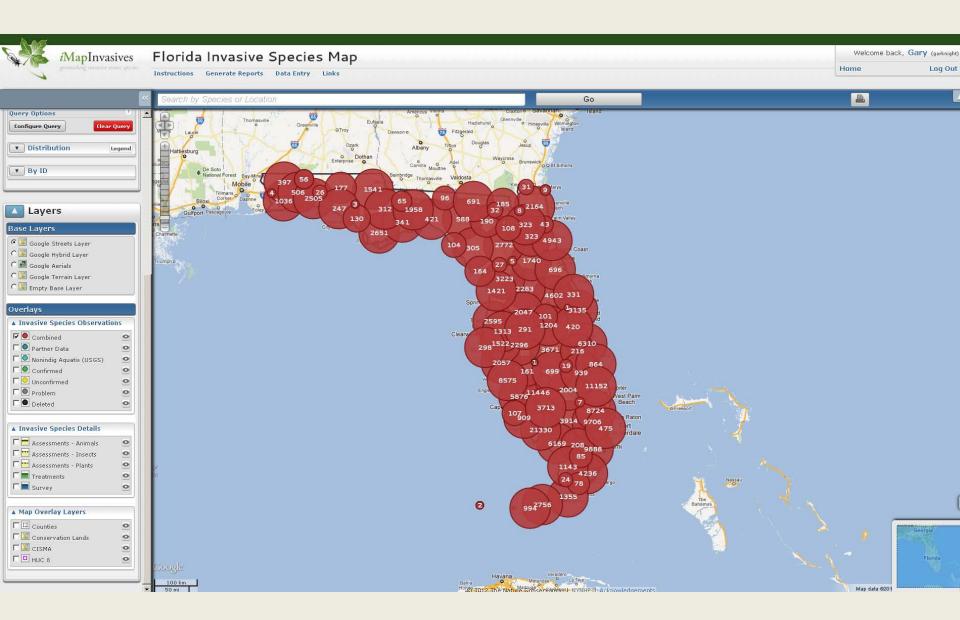
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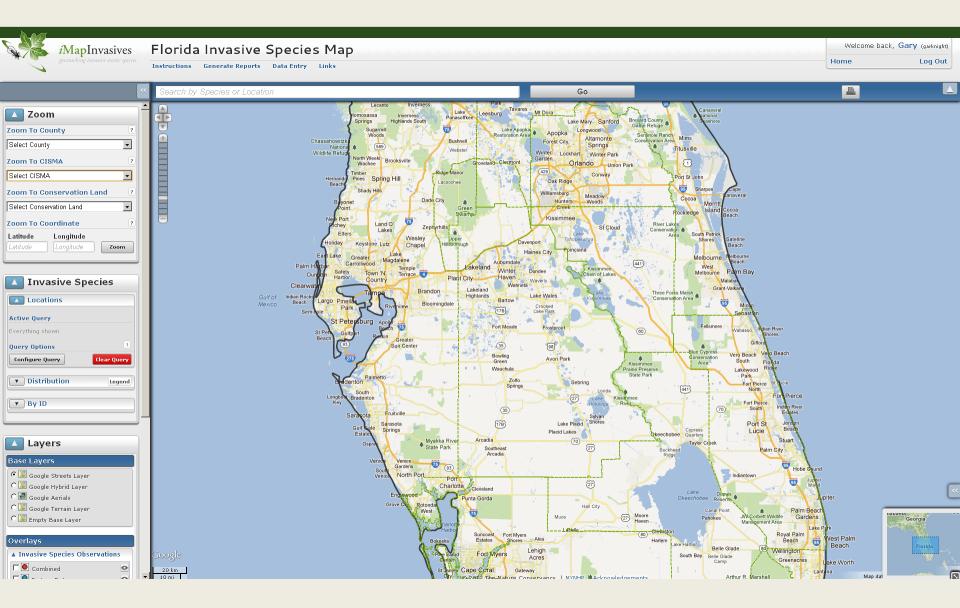


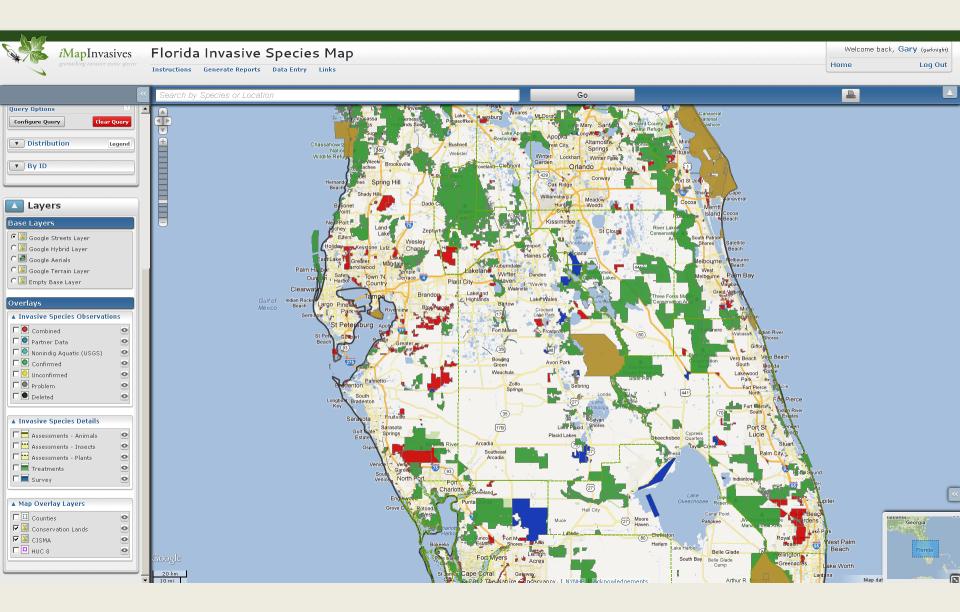


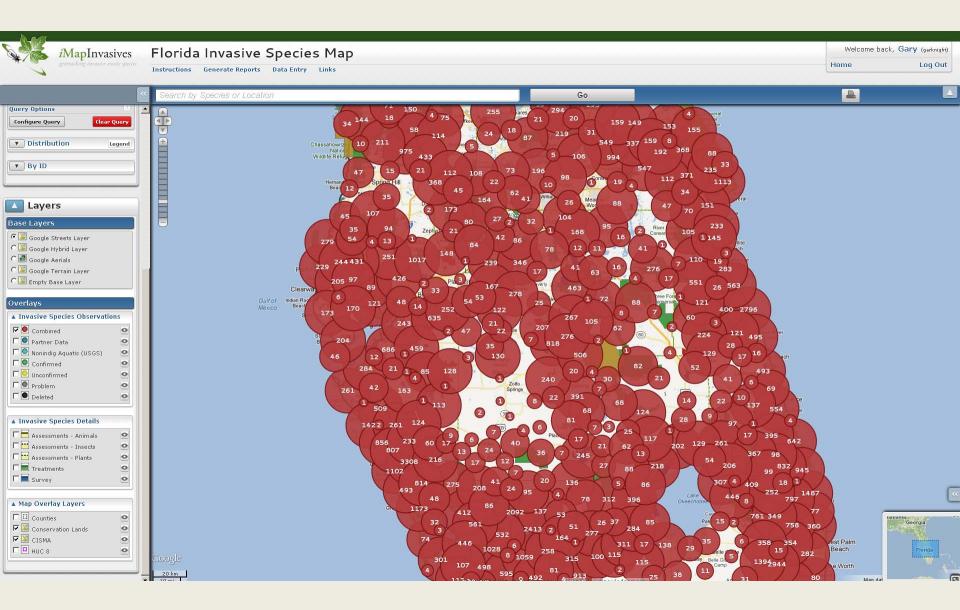


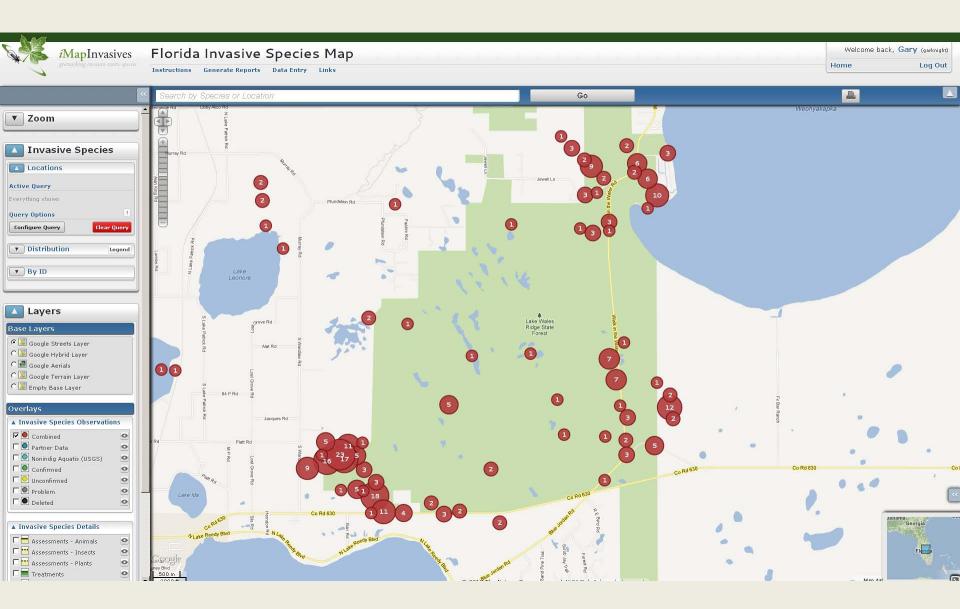


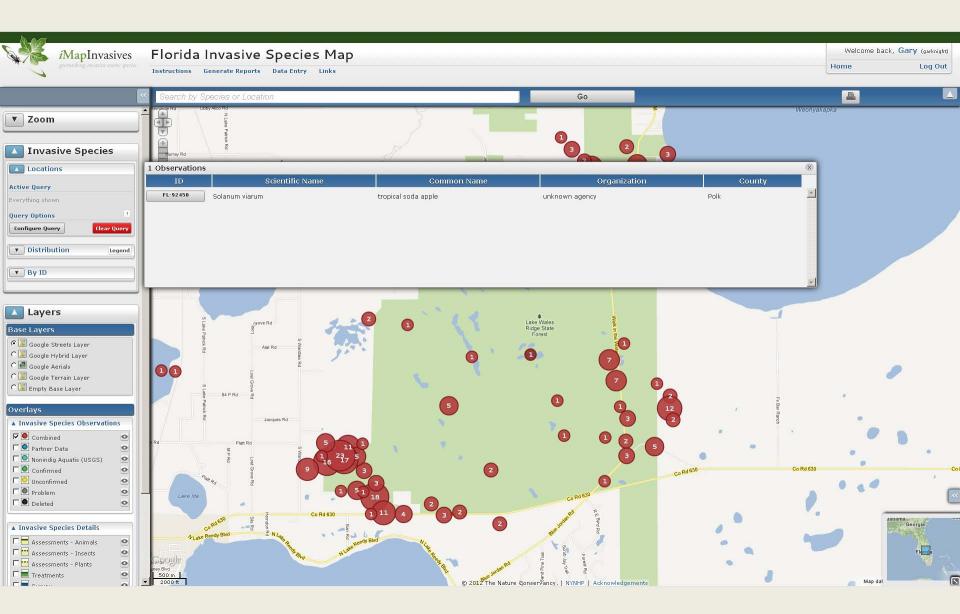








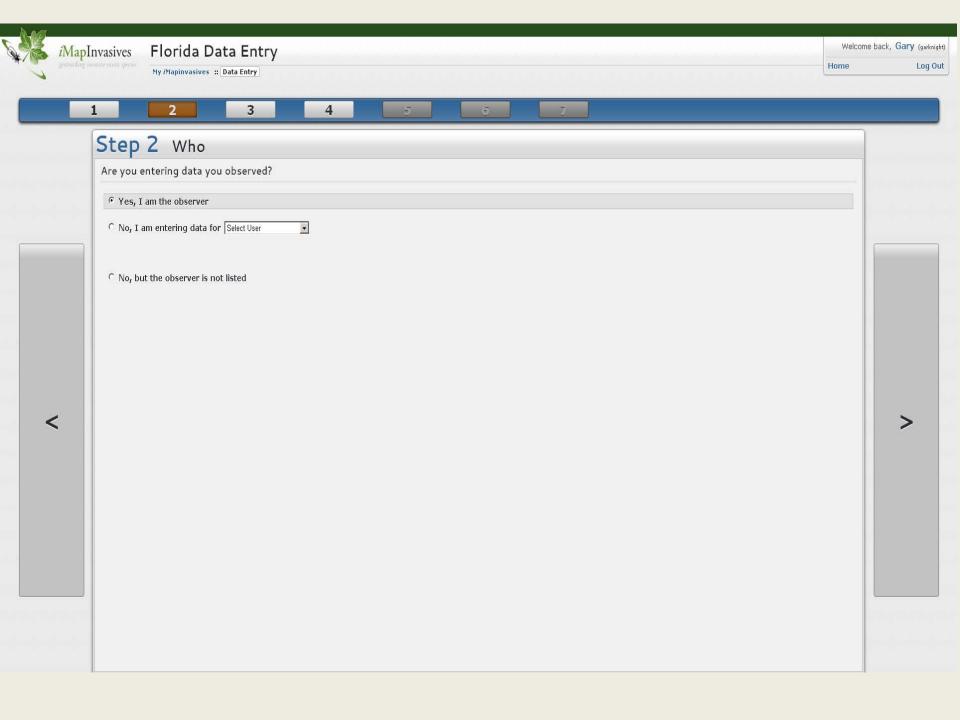


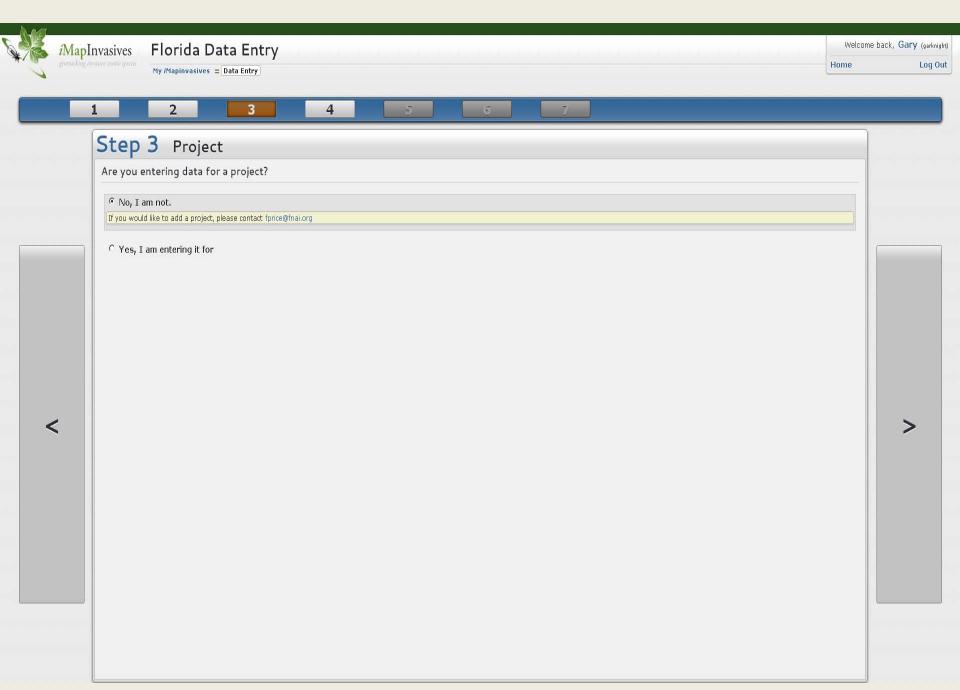


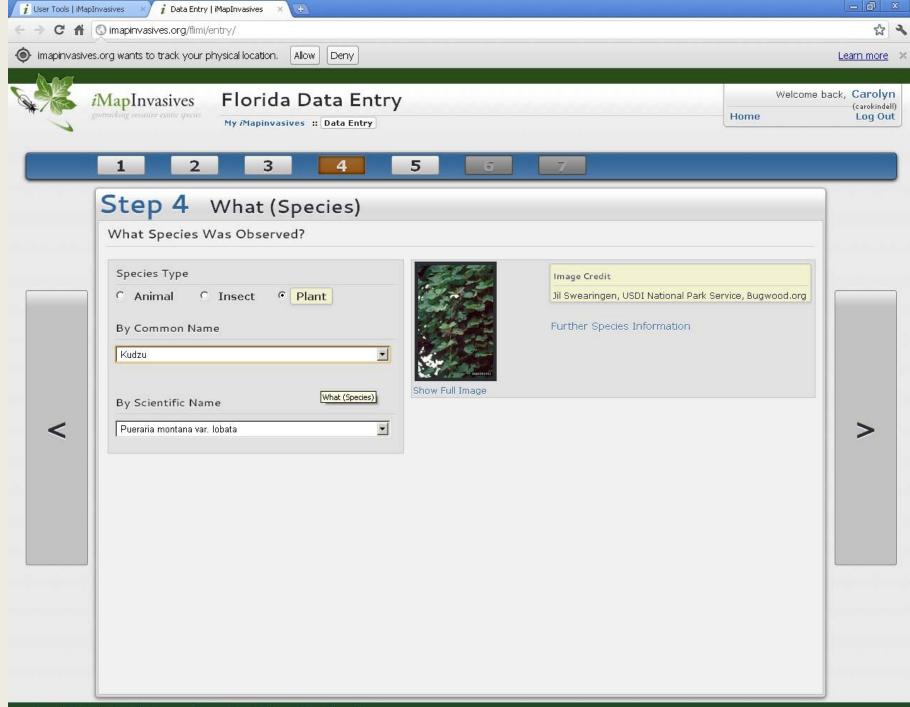
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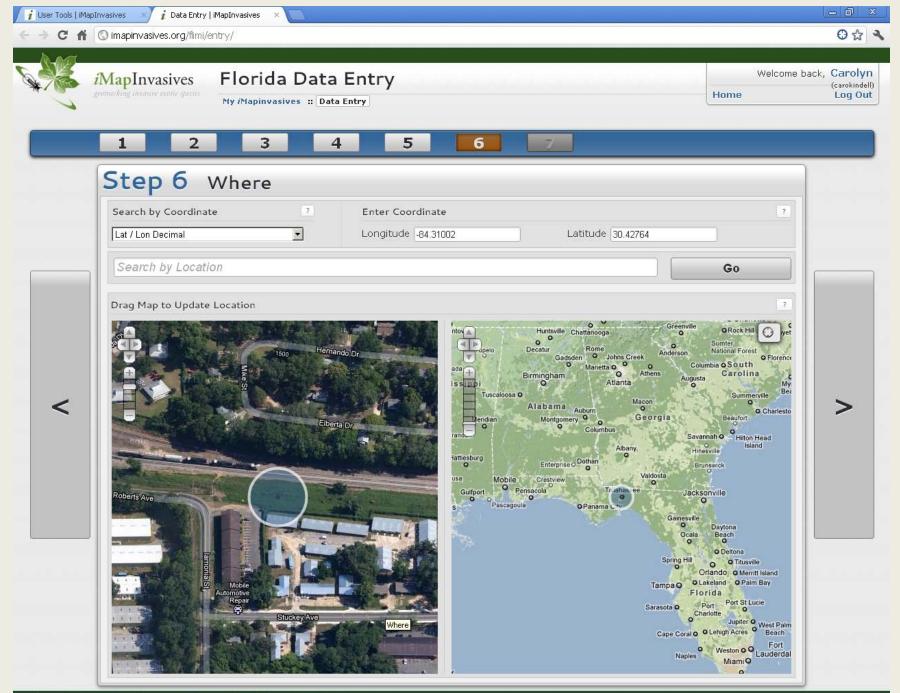
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Invasives Management :: Plant Assessments :: Assessment New

Home

#### Plant Assessment New Record Search for Location Go Search ? \* Assessment Area Use the buttons on the top right side of the map to add a feature. 4 1 T • Use the red 'x' button to delete a polygon • Use the green '+' button to draw a new polygon (Double click to end drawing the assessment polygon.) • Use the pan button to move the map or edit the polygon Kant North 🗖 tioi da Albany 0 rprise Chocksacka Nene cksacka Nene Chockasacka Nene Dothan -Google o ama City Gaineevi ? 204.50072602896398 Polygon Area (in square meters) Photos ? No image Photo 1 Choose File No file chosen **Remove Photo** ? Photo 1 Credit ? No image Photo 2 Choose File No file chosen **Remove Photo**



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Assessment Information		
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* Observation ID	FL-105533U	?
Evaluation Type		?
Evaluation Type Comments		?
Site Disturbance Type		•
Site Disturbance Severity		?
Follow Up		2
Assessment Comments		?
Affected Area Information		
Disturbance Comments		?
Infested Area		2
Unit of Measure		?
Percent Cover		?
Cover Class		•
Gross Area (square meters)	298	?

-

Site Disturbance Severity	d) Heavy	?
Follow Up	<b>x</b>	?
Assessment Comments		?
Affected Area Information		
Disturbance Comments		?
Infested Area		?
Unit of Measure	a) Acres	?
Percent Cover	5	?
Cover Class	a) less than 5%	?
Gross Area (square meters)	298 Area of land/water containing the organism of interest, including areas not infested. The gross area is defined by	?
Landscape Type	drawing a line around the general outer perimeter of the area occupied by the population.	?
Landscape and Location Comments		?
Native Vegetation Distribution	······	?
Plant Information		
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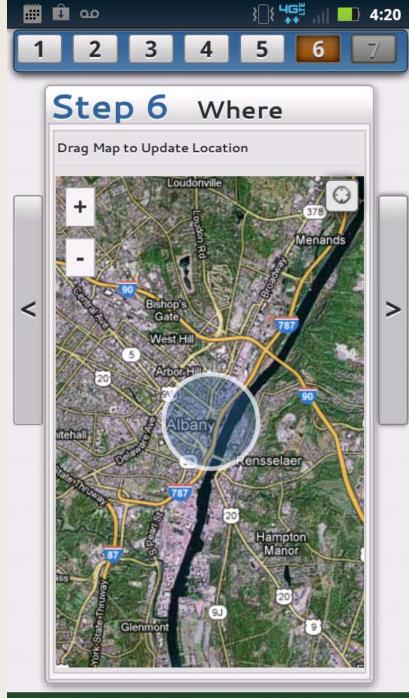
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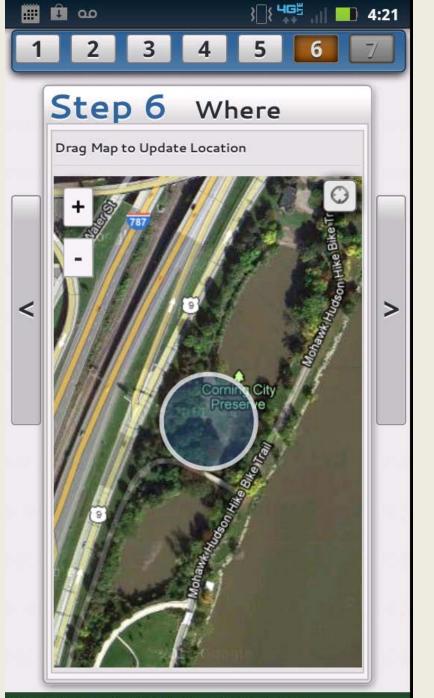
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	Êl oo }_{\\ <sup>465</sup> ,    ■)	4:17
i	OBS - Data Entry   iMapInvasives	C
1	2 3 4 5 6	7
<	Step 2 Who Are you entering data you observed? • Yes, I am the observer • No, I am entering data for Select User • No, but the observer is not listed	

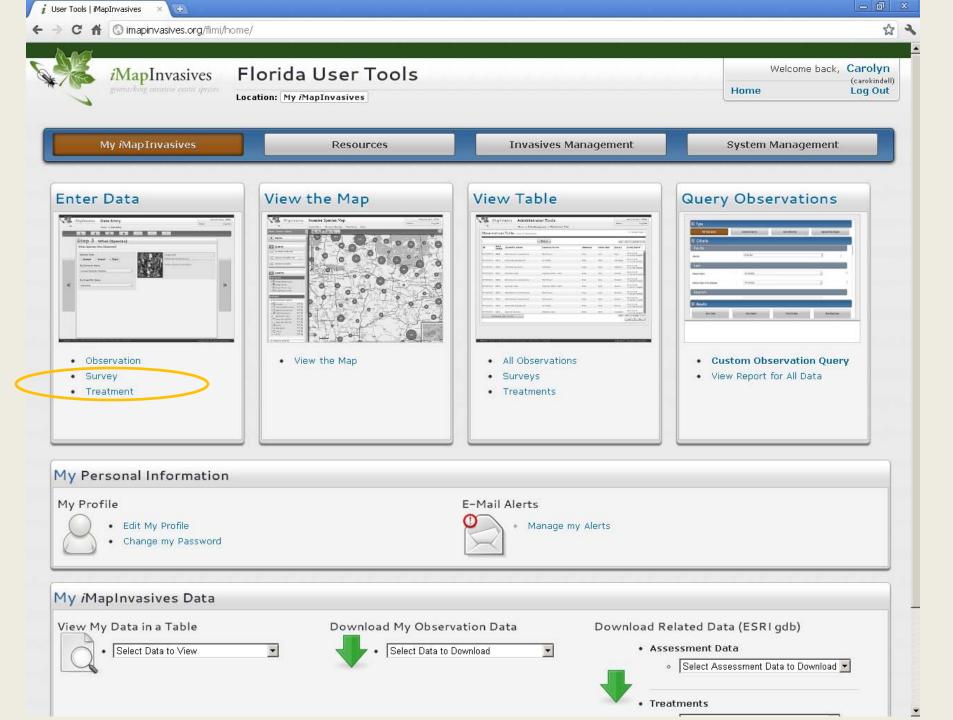








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i User Tools   iMapInvasives × i User To ← → C ↑ ⓒ imapinvasives.org/fl	ols   iMapInvasives ×		6 - D
	Florida User Tools	Welcome b	oack, Carolyn
geomations intention examination		Home	(carokindell) Log Out

## Survey Information

### Search

Search for Location

53958.52443903871

### \* Survey Area

Use the buttons on the top right side of the map to add a feature.

- Use the red 'x' button to delete a polygon
- Use the green '+' button to draw a new polygon (Double click to end drawing the survey polygon.)
- Use the pan button to move the map or edit the polygon



New Record

?

?

Polygon Area (in square meters)

## Basic Survey Fields

* Survey Goal		?
* Lead Contact		?
* Targeted Species	Select Some Options	?
Targeted Species Detected	Select Some Options	?
* Survey Start Date		?
* Survey End Date		?

🧃 User Tools   iMaj	pInvasives $i$ User Tools	iMapInvasives ×		- 0	
← ⇒ C ff	imapinvasives.org/flimi/t	reatment/new/		⊕ ☆	4
S AR	<i>i</i> MapInvasives	Florida User Tools	Welcome back,	200 DOL 00 000	
At 1 am	geotracking invasitie exotic species	Invasives Management :: Treatments :: Treatment Information	Home	(carokindell) Log Out	J

## **Treatment Information**

### Search

### \* Treatment Area

Use the buttons on the top right side of the map to add a feature.

- Use the red 'x' button to delete a polygon
- Use the green '+' button to draw a new polygon (Double click to end drawing the treatment polygon.)
- Use the pan button to move the map or edit the polygon

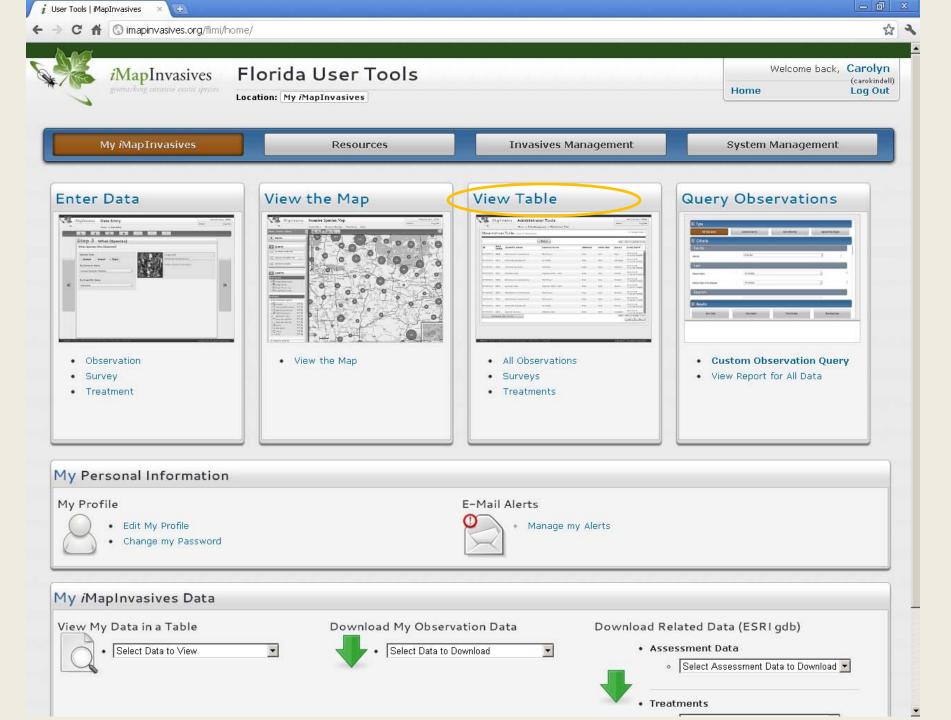


Polygon Area (in square meters)

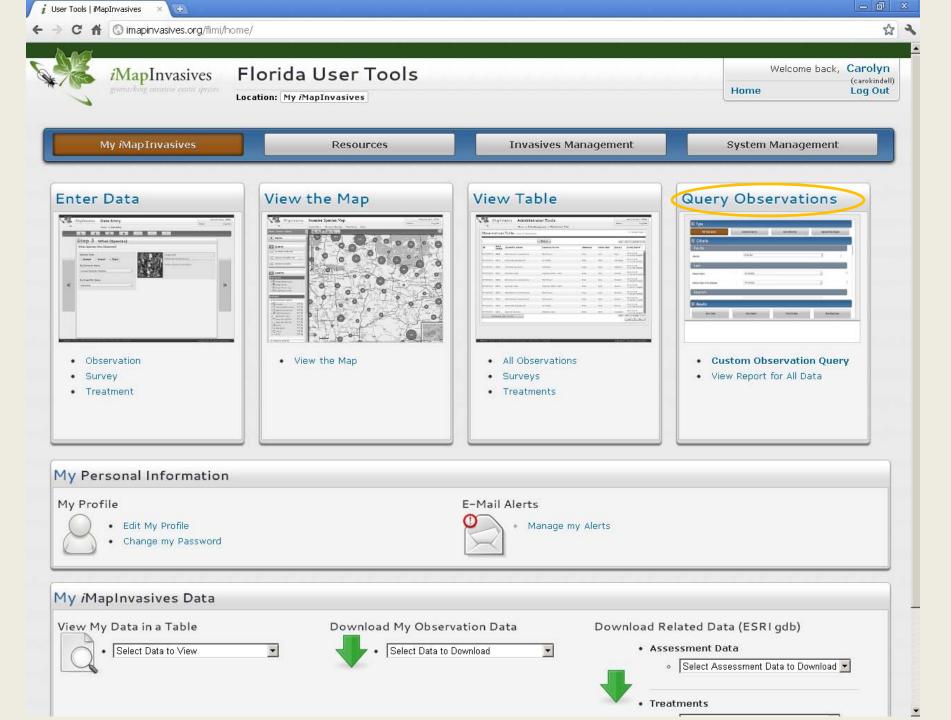
### **Required Fields**

* Treatment Goals		2
* Lead Contact	<b>_</b>	?
* Targeted Species	Select Some Options	2
* Treatment Start Date		?
* Treatment End Date		?
* Permit needed?		?

New Record



	MapInvasive tracking invasive exotic sp		custom Query :: Observation	s Table			Welcom		aroly carokin _og O
Observa	ations Tab	le					Custom D	ata Query	
	<u> </u>								
Active Cust									
Jser_type = a	ll_data Clear (	Query							
			Search				<b>0</b> - 25 of	<b>184,859</b> re	oculta
ID	Status	Scientific Name	Common Name	Observer	Entry User	County	Entry Date V	Photo	Juico
L-145109	Partner Data	Lygodium microphyllum	old world climbing fern	unknown		Palm Beach		0	-
L-21902	Partner Data	Urochloa mutica	para grass	gweniacona		St. Lucie		0	
L-48840	Partner Data	Abrus precatorius	rosary pea	annecox		Martin		0	
L-87272	Partner Data	Schinus terebinthifolius	Brazilian pepper	unknown		Miami-Dade		0	
L-106586	Partner Data	Imperata cylindrica	cogon grass	unknown		Polk		0	
L-125853	Partner Data	Casuarina equisetifolia	Australian pine	unknown		Lee		0	
L-145110	Partner Data	Lygodium microphyllum	old world climbing fern	unknown		Palm Beach		0	
L-21903	Partner Data	Abrus precatorius	rosary pea	gweniacona		St. Lucie		0	
L-48841	Partner Data	Schinus terebinthifolius	Brazilian pepper	annecox		Martin		0	
L-68041	Partner Data	Schinus terebinthifolius	Brazilian pepper	unknown		Lee		0	
L-87273	Partner Data	Dioscorea bulbifera	air-potato	stevgreen		Miami-Dade		0	
	Partner Data	Urena lobata	Caesar's weed	rodegrills		Orange		0	
L-106587	Partner Data	Ricinus communis	castor bean	unknown		Lee		0	
		Onlying to the list of the	Brazilian pepper	unknown		Collier		0	
L-106587 L-125854 L-145111	Partner Data	Schinus terebinthifolius							



Full Data Query	Common Invasive Species	Early Detection	Approaching Region	
Criteria				
Species type				
pecies Type	All		V	
Date Observed Range				
elect Date te: Date ranges will not affect data on map	Start:			?
Organization				
rganization	Florida Natural Areas Inventory Florida Atlantic University Florida Atlantic University		×	?
Project	Florida Department of Agriculture and Consumer Services Florida Department of Agriculture and Consumer Services, Division of Forestry Florida Department of Community Affairs	,		
roject	Florida Department of Environmental Protection Florida Department of Environmental Protection, Bureau of Mine Reclamation Florida Department of Environmental Protection, Division of Rec. and Parks Florida Department of Environmental Protection, Florida Geological Survey			
	Florida Department of Environmental Protection, Office of Coastal and Aquatic	: Managed Areas Is		
Data Status	Florida Department of Environmental Protection, Office of Greenways and Trail			?
	Florida Department of Military Affairs Florida Department of Transportation Florida Environmental and Land Services, Inc. Florida Exotic Pest Plant Council			
Data Status	Florida Department of Military Affairs Florida Department of Transportation Florida Environmental and Land Services, Inc.	nt Section		

### 📇 Print **Generated Report** Report for Data Entry Submitter: Gweniacona, Observer: Gweniacona 8887 Total Observations Found Date Generated: March 01, 2012 View Quick Summary Report Counties: 59 Species: 106 Users: 1 **Organizations:** 5 List of Observations County Report - 59 Counties Summary 800-600-400 200 0 1 2 3 4 5 6 7 8 9 10 1112 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 5 Counties Chart 756 59 Total Counties: 59 Average Number of Observations: 150 **Counties Found** Miami-dade: 220 Alachua: 55 Dixie: 71 Holmes: 24 St. johns: 65 Baker: 5 Escambia: 379 Indian river: 110 Nassau: 5 St. lucie: 209 Bay: 78 Flagler: 55 Jackson: 336 Okaloosa: 40 Sumter: 23 Bradford: 165 Franklin: 93 Jefferson: 24 Orange: 236 Suwannee: 47 Brevard: 648 Gadsden: 25 Lafayette: 8 Osceola: 83 Taylor: 20 Broward: 73 Gilchrist: 54 Lake: 341 Pasco: 260 Undefined County: 1 Charlotte: 51 Glades: 15 Pinellas: 883 Union: 19 Lee: 157 Citrus: 157 Gulf: 91 Leon: 663 Polk: 376 Volusia: 306 Clay: 44 Hamilton: 77 Levy: 69 Putnam: 223 Wakulla: 112 Collier: 355 Hardee: 3 Liberty: 42 Santa rosa: 249 Walton: 66 Columbia: 22 Hernando: 227 Madison: 49 Sarasota: 132 Washington: 7

Manatee: 330

Desoto: 5

Hillsborough: 99

Seminole: 305

Summary		
750 500 250		
otal Species: 106 verage Number of Observations: 83		
Species Found		
Abrus precatorius   Rosary Pea 123 observations <i>(ID: 2-156893 )</i> Common Invasive Species	Manilkara zapota   Sapodilla         1 observations (ID: 2-156165 )         Common Invasive Species	
Acacia auriculiformis   <i>Earleaf Acacia</i> 24 observations <i>(ID: 2-146783 )</i> Common Invasive Species	Melaleuca quinquenervia   Melaleuca         99 observations (ID: 2-132725 )         Common Invasive Species         Featured Species	
Adenanthera pavonina   Red Sandalwood 1 observations (ID: 2-144010 ) Common Invesive Species	Melia azedarach   Chinaberry         285 observations (ID: 2-152741 )         Common Invasive Species	
gave sisalana   <i>Sisal Hemp</i> .0 observations <i>(1D: 2-142908 )</i> Common Invasive Species	Mimosa pigra   Catclaw Mimosa         12 observations (ID: 2-149309 )         Common Invasive Species	
Ibizia julibrissin   Mimosa 364 observations (1D: 2-155382 ) Common Invasive Species	Nandina domestica   Heavenly Bamboo 45 observations (ID: 2-155397 ) Common Invasive Species	
Ibizia lebbeck   Woman's-tongue Tree 8 observations (ID: 2-131494 ) Common Invesive Species	Nephrolepis brownii   Asian Sword Fern         12 observations (ID: 2-132729 )         Common Invasive Species	
Aleurites fordii   Tung oil Tree 16 observations (1D: 2-149724 )	Nephrolepis cordifolia   Sword Ferm           155 observations (ID: 2-153758 )	

-

My <i>i</i> MapInvasives :: Cu	tum Querγ		
Туре			
Full Data Query	Common Invasive Species Early Detection	Approaching Region	
Criteria			
Data Set			
Data Set	All iMap Data	×	?
Users			
Dbserver Name	All Available	×	?
Dbserver Name From Database	All Available	v	?
Geography			
Seography Type	Conservation Lands	×	?
Geography Value	Lake Wales Ridge State Forest Lake Tarpon veest wanagement Avea Lake Thomas Cove Park	<u> </u>	?
Species	Lake Thomas ore pain Lake Thomasasa Lake Tracey Lake Trafford Impoundment E Lake Wales Ridge National Wildlife Refuge Lake Wales Ridge State Forest		
Species Type C Animal C Insect C Plant	Lake Wales Ridge Wildlife and Environmental Area Lake Wales Trailways E Lake Woodruff National Wildlife Refuge Lakeland Highlands Scrub Lakes By The Bay Park Lakes Regional Park		
Genus Name Results	Lakeside Ranch STA Lakeside Sand Pine Preserve Lakewood Park Natural Area Lamey Deservation Easement Lang/Ganctuary Larg and Penny Thompson Park		

Generated Report
Report for Conservation Lands; Lake Wales Ridge State Forest
Total Observations Found
ate Generated: March 01, 2012
iew Quick Summary Report
ounties: 1 Decies: 27 Sers: 5 rganizations: 4
List of Observations
County Report – 1 Counties
Counties Found
Polk: 1519
Species Report - 27 Species
Summary
600       Avg         400       Avg         300       Image: Second
atal Species: 27 zerage Number of Observations: 56
Species Found
brus precatorius   Rosary Rea Melia azedarach   Chinaberry
6 observations (ID: 2-156893 )       1 observations (ID: 2-152741 )         common Invasive Species       Common Invasive Species

-

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

•

Species Found		
brus precatorius   Rosary Pea	Melia azedarach   Chinaberry	
6 observations <i>(1D: 2-156893 )</i> ommon Invasive Species	1 observations (ID: 2-152741 ) Common Invasive Species	
bizia julibrissin   Mimosa observations (ID: 2-155382 )	Panicum repens   Torpedo Grass     2 observations (ID: 2-131742 )	
onimon Invasive Species	Common Invasive Species Featured Species	
Inamomum camphora   Camphor Tree	Psidium cattleianum   Strawberry Guava	
) observations <i>(ID: 2-132610 )</i>	1 observations ( <i>ID: 2-131341 )</i> Common Invasive Species	
ctyloctenium aegyptium   Durban Crow-foot Grass	Psidium guajava   Guava	
observations (ID: 2-151603 )	2 observations (ID: 2-135070 )	
mmon Invasive Species	Common Invasive Species	
bergia sissoo   Indian Rosewood	Rhynchelytrum repens   Natal Grass	
observations <i>(ID: 2-130140 )</i>	29 observations <i>(ID: 2-151602 )</i> Common Invasive Species	
sscorea bulbifera   Air-Potato	Sapium sebiferum   Chinese Tallow	
observations (ID: 2-153194 )	<b>2</b> observations ( <i>ID</i> : 2-147870 )	
mmon Invasive Species	Common Invasive Species	
chhornia crassipes   Water Hyacinth observations (ID: 2-133608 )	Schinus terebinthifolius   Brazilian Pepper 34 observations (ID: 2-147002 )	
mmon Invasive Species	Common Invasive Species Featured Species	
genia uniflora   Surinam Cherry	Solanum viarum   Tropical Soda Apple	
observations <i>(1D: 2-159032 )</i>	113 observations (ID: 2-150308 )         Common Invasive Species         Featured Species	
perata cylindrica   Cogon Grass	Sphagneticola trilobata   Wedelia	
Perata cylinarica   cogon Grass       '1 observations (ID: 2-133529 )	5 observations ( <i>ID</i> : 2-130260 )	
mmon Invasive Species Featured Species	Common Invasive Species	
ntana camara   Lantana	Syagrus romanzoffiana   Queen paim	

iMapInvasives geotracking invasive exotic species Florida Administrator Tools

Welcome back, Gary (garknight) Log Out Home

My *i*MapInvasives :: Custom Query

1 Туре				
Full Data Query	Common Invasive Species	Early Detection	Approaching Region	
2 Criteria		An Early Detection report shows species fewer reported observations.	with 3 or	
Data Set				
Data Set	All iMap Data		Y	?
Users				
Observer Name	All Available		×	?
Observer Name From Database	All Available		×	?
Geography				
Geography Type	Conservation Lands		<b>v</b>	?
Geography Value	Lake Wales Ridge State Forest			?
Buffer Distance				
Buffer Distance (in meters)	1 1 1			?
Species				
Species Type C Animal C Insect C Plant	By Common Name Select A Species By Scientific Name Select A Species			
3 Results				
View Table	View Report	View On Map	Download Data	

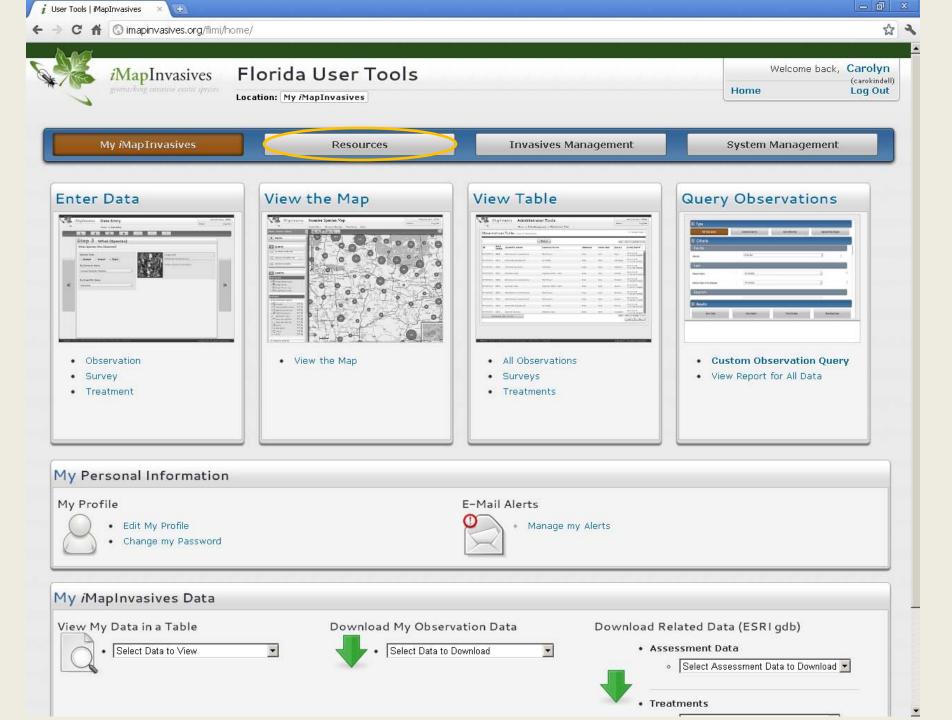
*i*MapInvasives geotracking invasive exotic species Florida Administrator Tools

My /MapInvasives :: Custom Query

S AN

Log Out Home

1 Туре				
Full Data Query	Common Invasive Species	Early Detection	Approaci	ing Region
2 Criteria				An Approaching Region report shows where are no reported observations of a species in geographic region but there are reported observations for the species in adjacent region
Data Set				observations for the species in adjacent regi
Data Set	All iMap Data		×	2
Users				
Observer Name	All Available		v	?
Observer Name From Database	All Available		v	2
Geography				
Geography Type	Conservation Lands		T	2
Geography Value	Lake Wales Ridge State Forest			?
Buffer Distance				
Buffer Distance (in meters)				?
Species				
Species Type	By Common Name			
C Animal C Insect © Plant	Select A Species		×	
	By Scientific Name			
	Select A Species		•	•
Results				
View Table	View Report	View On Map	Dov	nload Data





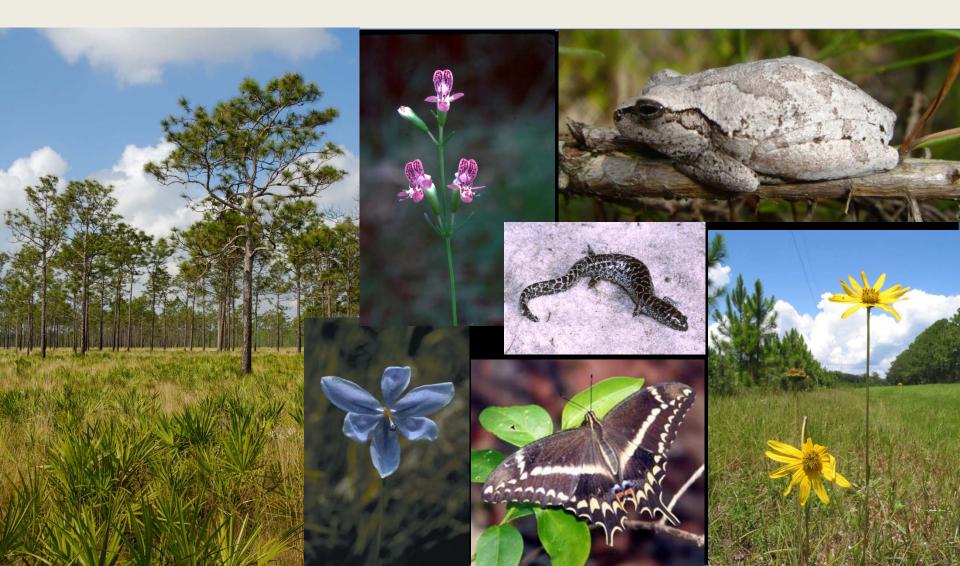
### Reference - *i*MapInvasives Project Reference - Settings Sharing Principles • Steps to Go Live Functions run nightly Data Sharing Agreement Trouble Shooting Tips Functionality by User Level /MapInvasives Terminology · Overview of Functionality by User Level MapInvasives Version History • State Specific Programming PDF Why Firefox? *i*MapInvasives Projects Guide **Observation Field Forms** Assessment Field Forms Survey Field Forms Observation (0000000) • Survey - Aquatic Simple (Lacustrine) Assessment - Aquatic Animal Observation GPS Field Form Assessment - Aquatic Plant (with observation) P. Survey - Aquatic Systematic Supplemental Waypoint Field Form Assessment - Terrestrial Animal Survey - Cerceris Wasp Assessment - Terrestrial Plant (with observation) Survey - Host Tree Assessment - Insect Survey - Lake Treatment Field Forms 00000000 Treatment - Barrier Treatment - Bioagent Treatment - Chemical

- Treatment Fire
- Treatment Flame Weeding
- Treatment Grazing
- Treatment Mechanical / Manual
- Treatment Shooting
- Treatment Trapping

# Advantages of *i*MapInvasives

- GIS foundation allows complex spatial analysis
- Many helpful on-demand reports already developed
- Easy to learn and use
- Ability to manage survey and treatment data
- No cost to partners
- Support provided by FNAI
- Tools are being continually improved based on user feedback

# Prioritizing Invasive Exotic Plant Treatments



# Invasive Plant Threats to Rare Plants in the First Coast CISMA

Total Rare Plant Occurrences	260
Total Invasive Occurrences Rare Plant Occurrences (with 200m	7,776
buffer) intersecting Invasive Occurrences	35
Invasive Occurrences intersecting Rare Plant Occurrences (with 200m buffer)	180
Total Intersections Rare Plant	
Occurrences (with 200m buffer) and Invasive Occurrences	262

# Top Ten Rare Plants Threatened by Proximity (200 m) to Invasive Plants\*

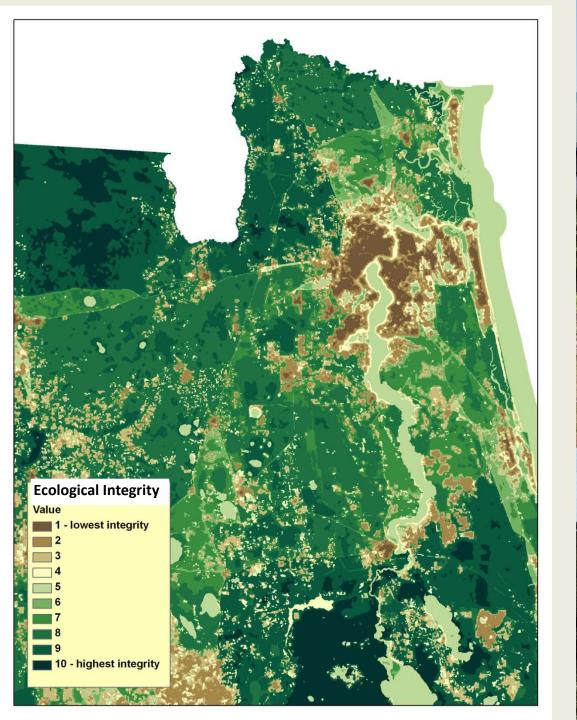
Rare Plant Scientific Name	Rare Plant Common Name	No. Occurrences Intersected
Hartwrightia floridana	Hartwrightia	66
Baptisia calycosa var. calycosa	Canby's Wild Indigo	43
Calydorea coelestina	Bartram's Ixia	41
Forestiera godfreyi	Godfrey's Swampprivet	19
Monotropsis reynoldsiae	Pygmy Pipes	15
Peperomia humilis	Terrestrial Peperomia	14
Ctenium floridanum	Florida Toothache Grass	10
Spiranthes polyantha	Green Ladies'-tresses	10
Balduina atropurpurea	Purple Honeycomb-head	9
Pteroglossaspis ecristata	Giant Orchid	6

\*Data for First Coast CISMA boundaries

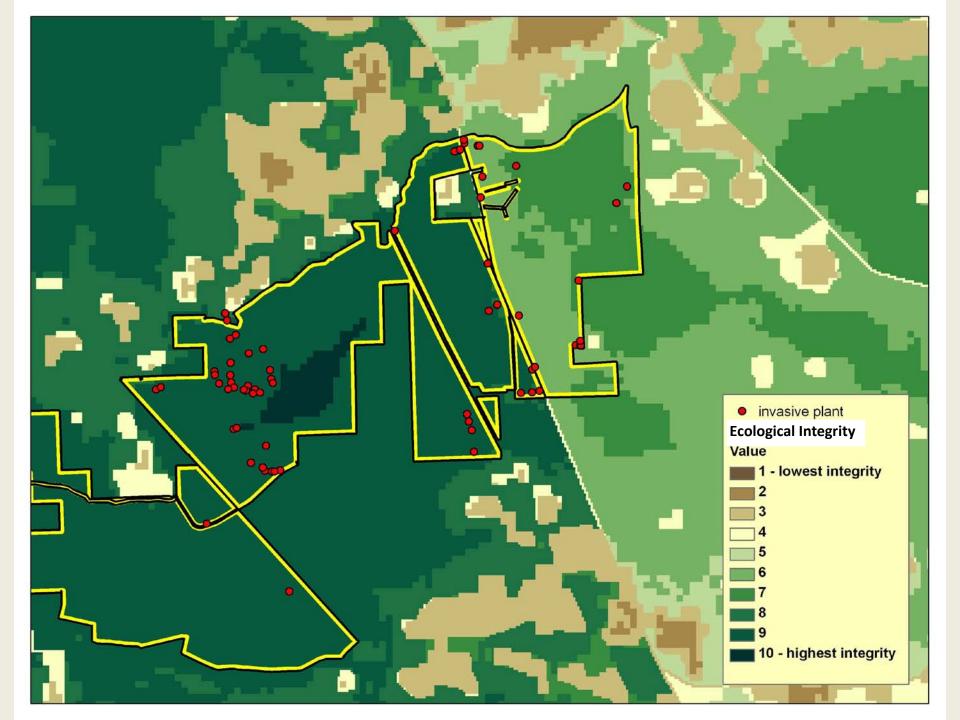
# Top Ten Invasive Plants within 200 m of Rare Plant Occurrence\*

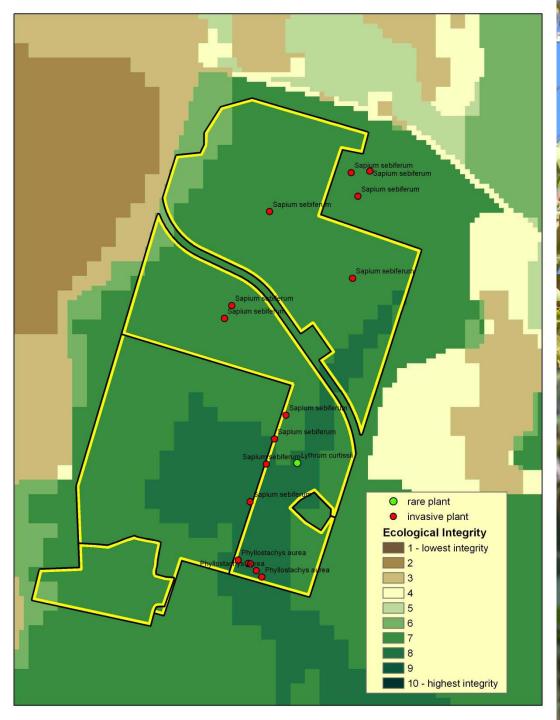
Invasive Plant Scientific Name	Invasive Plant Common Name	No. Rare Plant Occurrences Intersected
Lygodium japonicum	Japanese climbing fern	41
Panicum repens	torpedo grass	37
Melia azedarach	Chinaberry	27
Albizia julibrissin	mimosa	24
Sapium sebiferum	Chinese tallow	22
Dioscorea bulbifera	air-potato	18
Cinnamomum camphora	camphor tree	14
Lantana camara	lantana	14
Colocasia esculenta	taro	8
Sesbania punicea	purple sesban	8

\*Data for First Coast CISMA boundaries













# **Technical Assistance**

Frank Price, FNAI Data Manager <u>fprice@fnai.org</u>

## 850.224.8207 x 210

