

Nonnative Fish and Wildlife in Florida



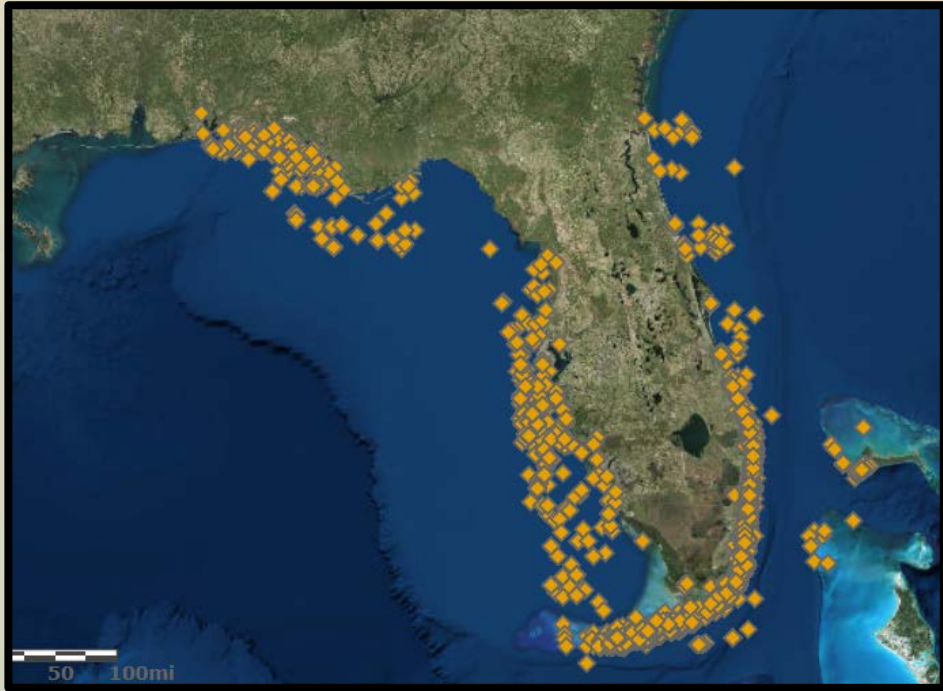
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Florida Fish and Wildlife Conservation Commission
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Gulf and South Atlantic Regional Panel on Aquatic Invasive Species

Nonnative Fish and Wildlife in Florida

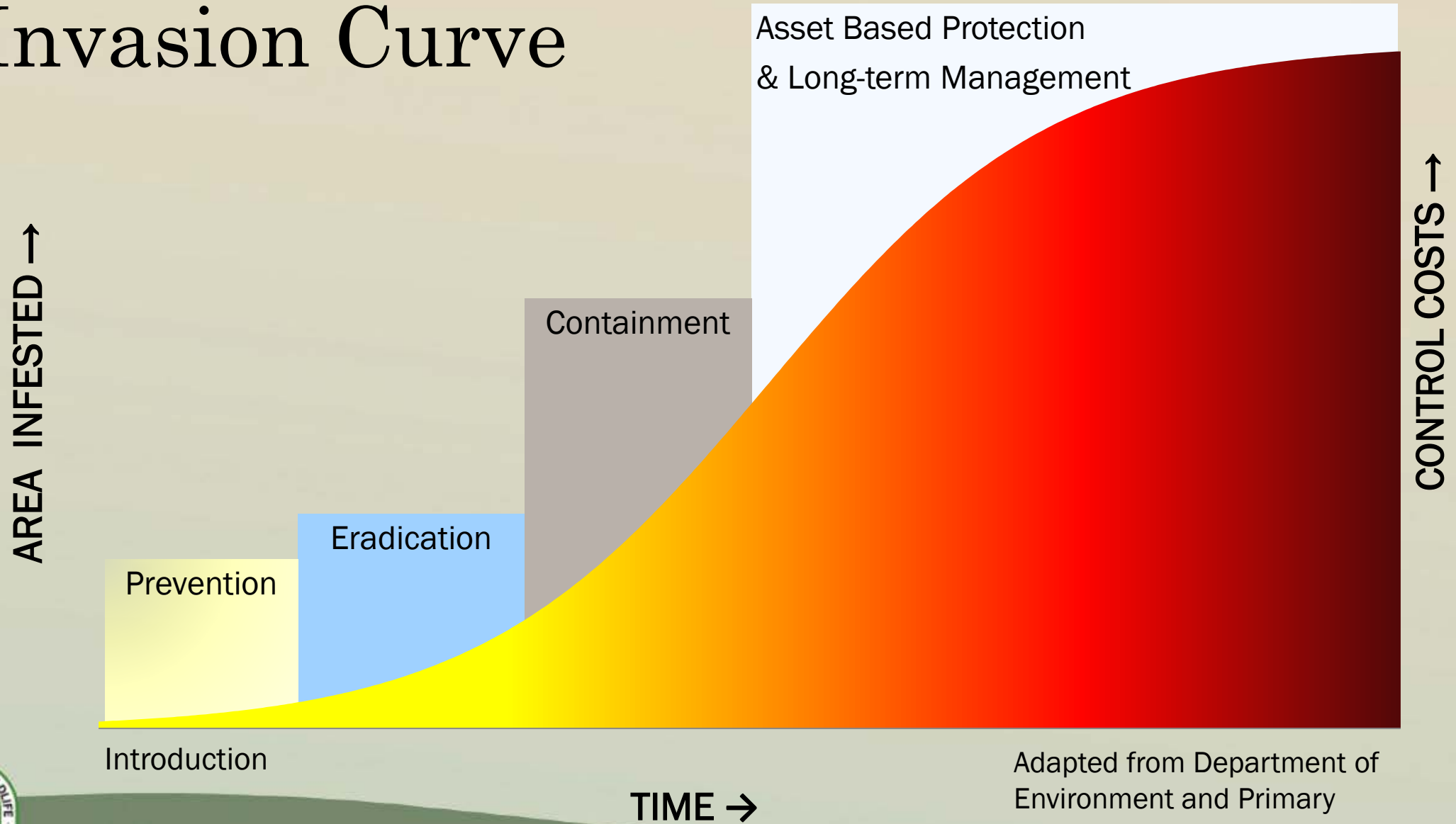


*Lionfish reports in the USGS
Nonindigenous Aquatic Species
Database 1985-Present*

- Over 60,000 observations of nonnative fish and wildlife
- Represents over 500 species
- At least 150 nonnative species reproducing
- Over 530,000 lionfish removed from Florida waters



Invasion Curve



Introduction

Adapted from Department of Environment and Primary Industries, Victoria, Australia

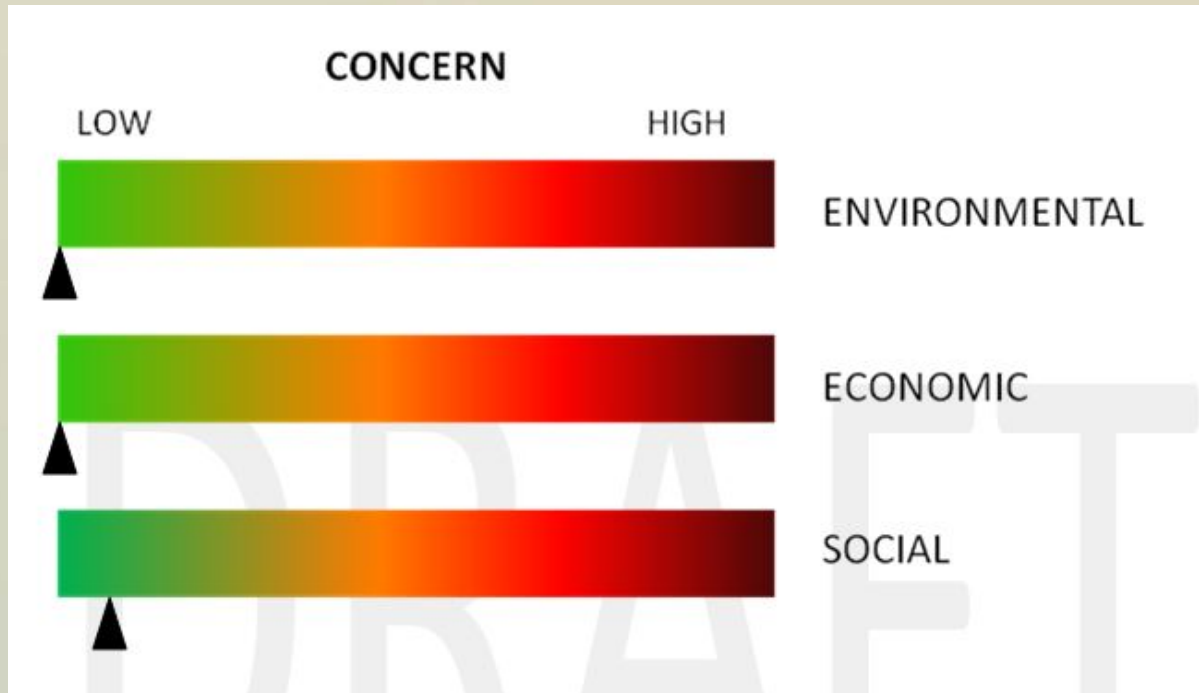


Nonnative Program Focal Areas

- Risk Assessment/Screening
- Prevention
- Early Detection/Rapid Response (EDRR)
- Control and Management
- Education and Outreach
- Research Support



Evaluating Level of Risk



- Not all nonnative species are invasive
- Impacts are not only environmental
- Ranking may change based on location
- Feasibility of effective management also considered



Risk Assessment and Screening tool

- Action recommendation based on
 - Invasion Assessment Score
 - Feasibility of Control Score
- The rest of the picture
 - MaxEnt
 - Presence in trade

Recommendation Consult spreadsheet "Action Matrix"				
Invasion Assessment Score	520.00	Very high	Low Uncertainty	Information is adequate to support recommendation
Feasibility of Control Score	490.00	Very high	Low Uncertainty	Information is adequate to support recommendation

Invasion Assessment	Feasibility of Control				
	Negligible (≤24)	Low (25-60)	Medium (61-158)	High (159-376)	Very High (≥376)
Negligible (≤36)	Limited Action	Limited Action	Monitor	Monitor	Monitor
Low (37-99)	Limited Action	Limited Action	Monitor	Monitor	Monitor
Medium (100-196)	Limited Action	Monitor	Monitor	Coordinate Rapid Response	Coordinate Rapid Response
High (197-336)	Limited Action	Protect Priority Sites	Protect Priority Sites	Coordinate Rapid Response	Coordinate Rapid Response
Very high (≥337)	Limited Action	Protect Priority Sites	Protect Priority Sites	Coordinate Rapid Response	Coordinate Rapid Response

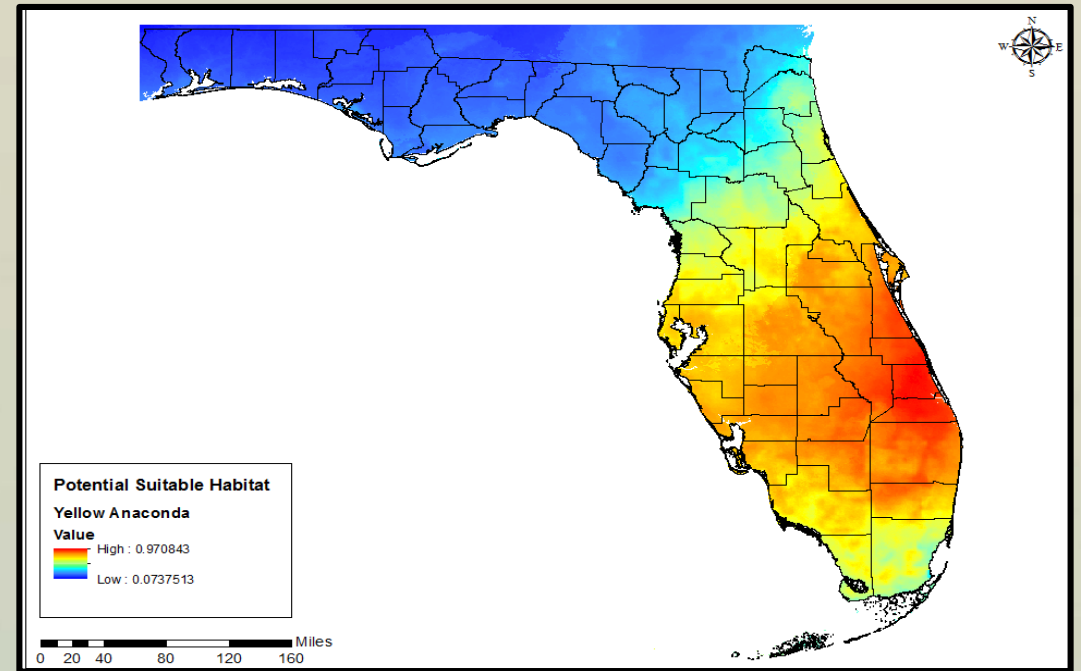


Risk Screen Case Study – Yellow Anaconda

- Invasion Assessment Score: Very high
- Feasibility of Control Score: Very high
- Recommended Action: Coordinate Rapid Response



Yellow anaconda removed from Department of Environmental Protection property, Myakka River State Park, Florida in 2018



MaxEnt habitat suitability model for yellow anaconda



Prevention – Conditional Species

- 68 conditional species in Florida
- Permit required for importation, research, commerce, exhibition
- No personal possession



Freshwater Stingrays



Live Aquaponics



Prevention – Prohibited Species



- Over 800 prohibited species in Florida
- Permit required for importation, research, exhibition
- No commercial sales
- No personal possession



Prevention – New Prohibited Species



- FWC Commissioners approved recent rule changes
 - Defined key terms
 - High-risk species added to Prohibited list
 - Added grandfathering language for people with these species in personal possession



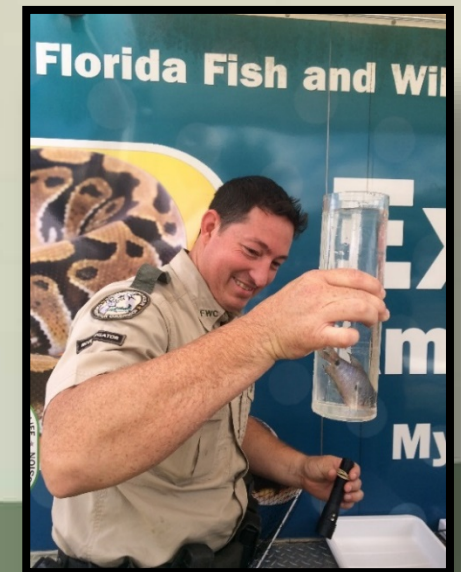
Prevention – New Prohibited Species

- Mammals: meerkats/mongoose, raccoon dog, dhole, brushtail possum, flying foxes
- Birds: red-whiskered bul-bul, dioch, Java sparrow, pink starling
- Reptiles: Brown tree snake, yellow anaconda, Beni anaconda, Deschauensee's anaconda



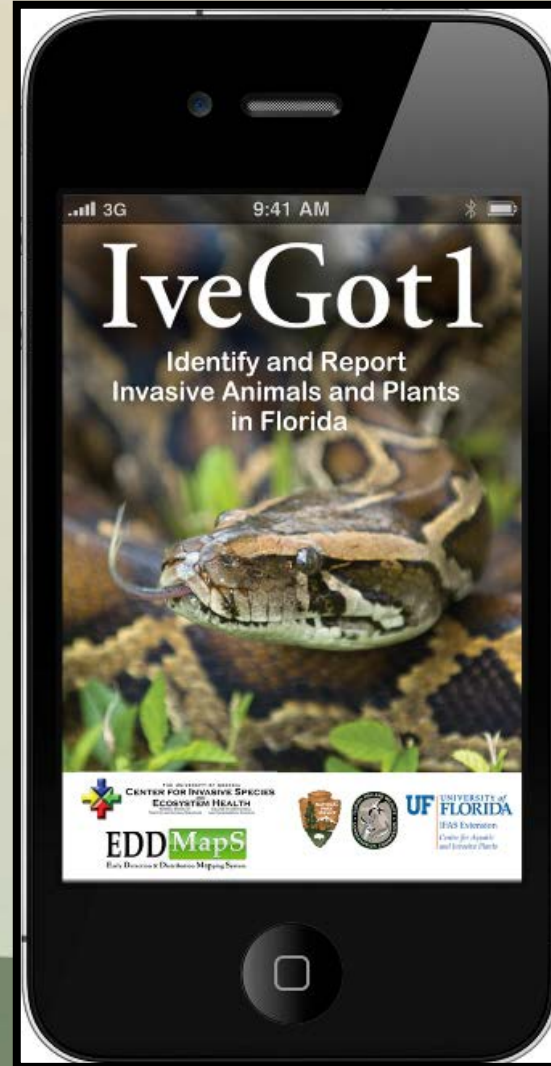
Prevention – Exotic Pet Amnesty Program

- Program Inception: 2006
- Total events: 47
- Animals surrendered: 5,981
- Conditional species surrendered: 1,027
- Adopters: 743 active



Early Detection/Rapid Response (EDRR)

- Reporting
- Verification
- Evaluation
- Response



**Seen something exotic?
Report your sighting!**

- 1. Take a picture**
- 2. Note the location**
- 3. Report your sighting**

By phone: 888-Ive-Got1 (888-483-4681) Online: IveGot1.org
or download the IveGot1 reporting app.

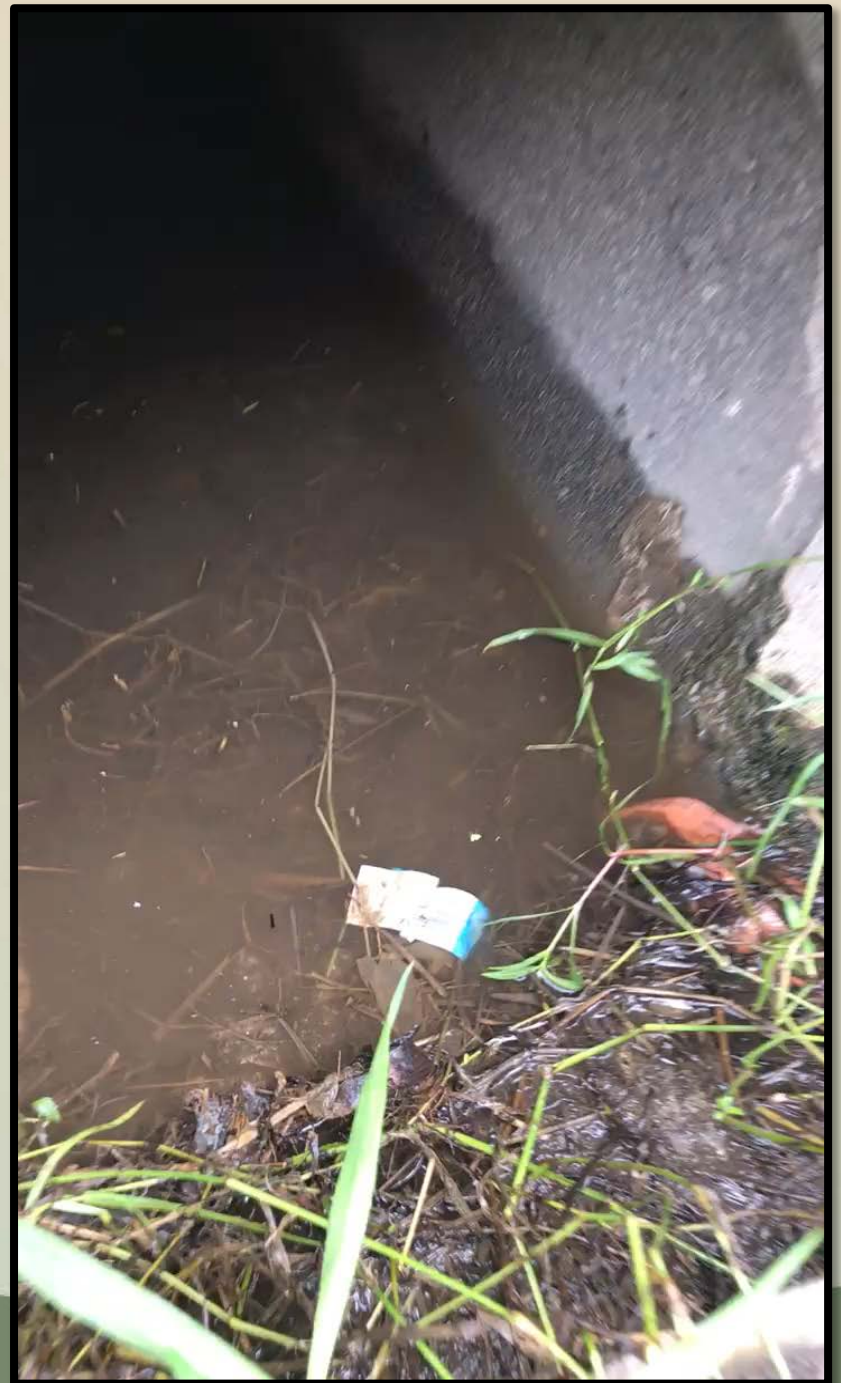
Knowing the distribution of nonnative species in Florida helps wildlife biologists plan more effective management strategies.

MyFWC.com/Nonnatives

The bottom of the sign features two images: a close-up of a snake's head on the left and a capybara on the right. A small circular logo is visible in the bottom right corner of the sign.

EDRR – Success Story

- Asian water monitor in Miami-Dade County
- No known breeding populations
- Risk screening: **Very high**
- Response coordinated
- Monitor removed within 3 days



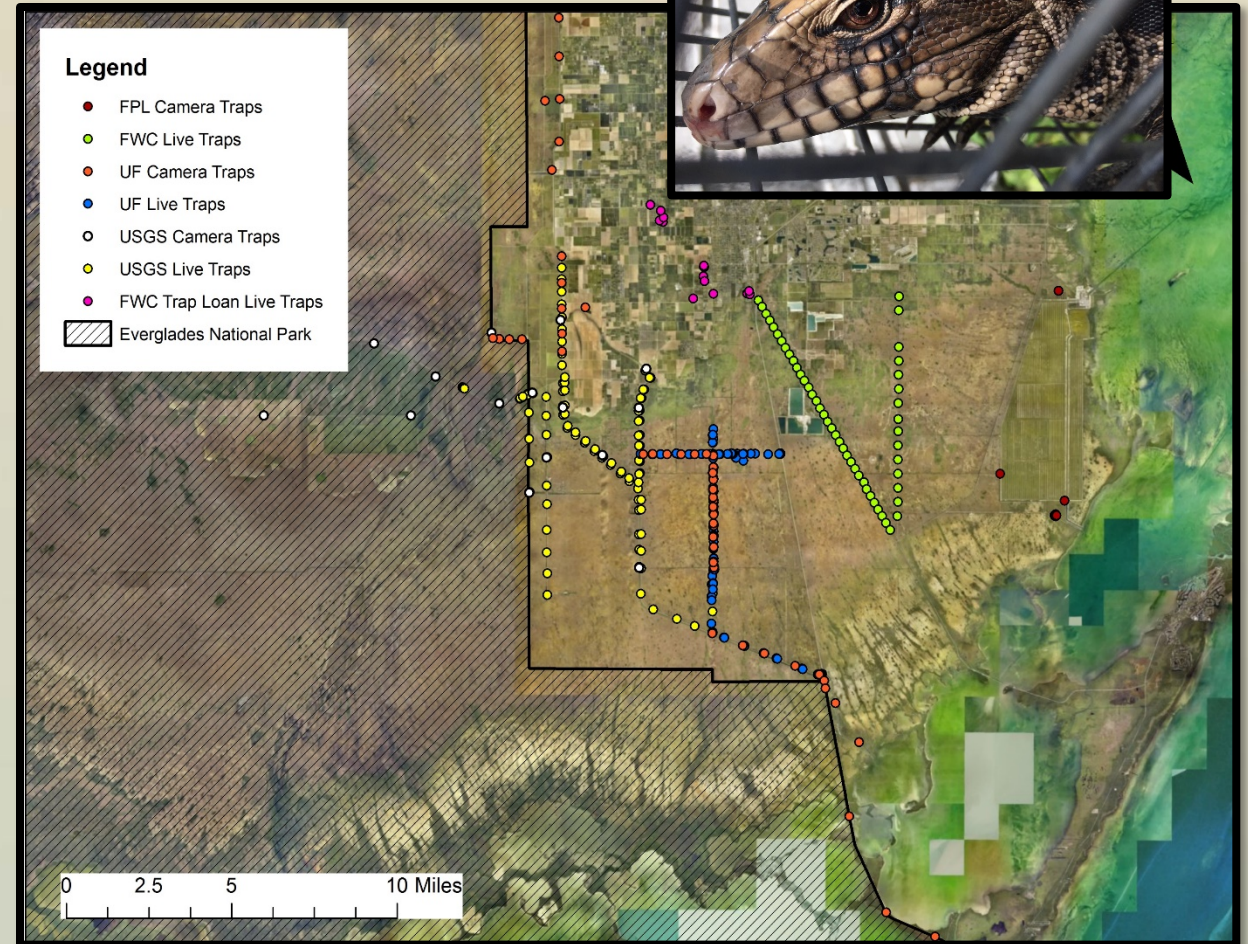
Control – Aquatic Species

- Electrofishing in south Florida
- Pond renovations
 - Bay Snook
 - African clawed frogs



Control – Live Trapping

- Interagency trapping effort in Miami-Dade County
- Over 6,800 removed
- FWC trap loan program in Florida City and Homestead



Interagency tegu traps and camera traps in Miami-Dade county



Captured tegu in public loan trap



Control – Shooting Surveys

- Nile monitors
 - Canal surveys by boat
 - Removed 129 since 2011
- Black Spiny-tailed iguanas
 - 398 removed since 2017

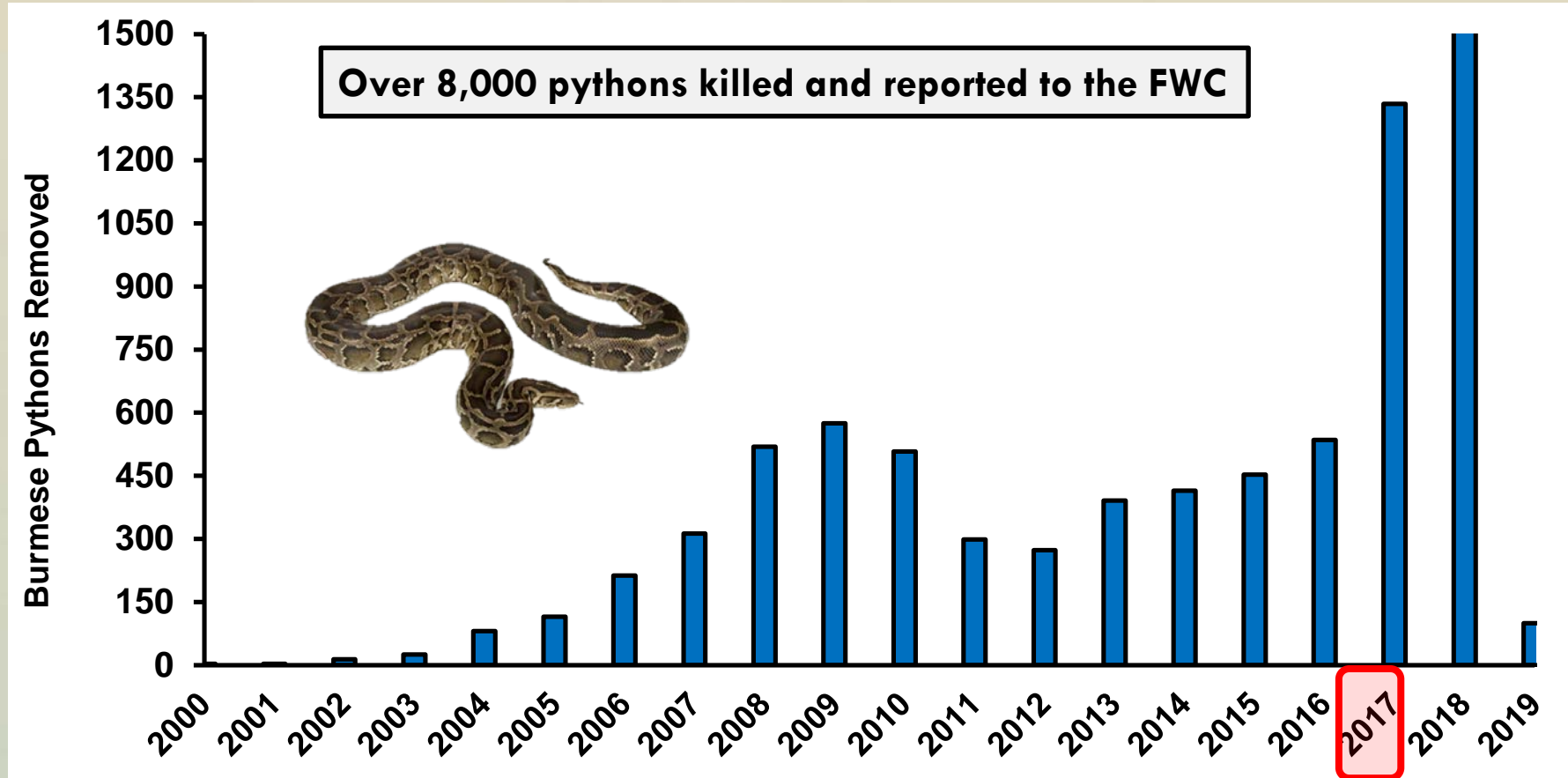


Control – Contractor Programs

- Python Removal Contractors
 - Compensated for survey time and pythons
 - 420 removed since April 2017
- Hillsborough County Tegu Assessment
- Keys Green Iguana Removal
 - Focus efforts in state parks
 - Over 2,300 removed



Python Removal Programs



**Contractor
Programs**



Lifting Barriers

- Increased hotline hours
- Trained volunteer/partner responders
- EO 17-11
- FWC contractors can access Everglades National Park
 - Lethal take of pythons
 - ENP allows firearm use



Thank You!

