

Interagency Monitoring and Assessment Efforts for the Argentine Black and White Tegu in the Southeastern Everglades



Photo by USDA National Wildlife Research Center



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Argentine black and white tegu

Tupinambis merianae / *Salvator merianae*

- Native to eastern Brazil, Paraguay, Uruguay, and northern Argentina
- Largest and most temperate species
- Burrowing species
- Period of inactivity from October—January/February in Florida
- Females breed once per year
- Average clutch size ~30 (native range)
- Omnivorous, habitat generalist, and active foragers



What are the potential threats?

- Eat a wide variety of native and nonnative *everything*
- Able to overwinter in all of Florida by burrowing
- Listed species in both locations where they are found
- Possible agricultural implications

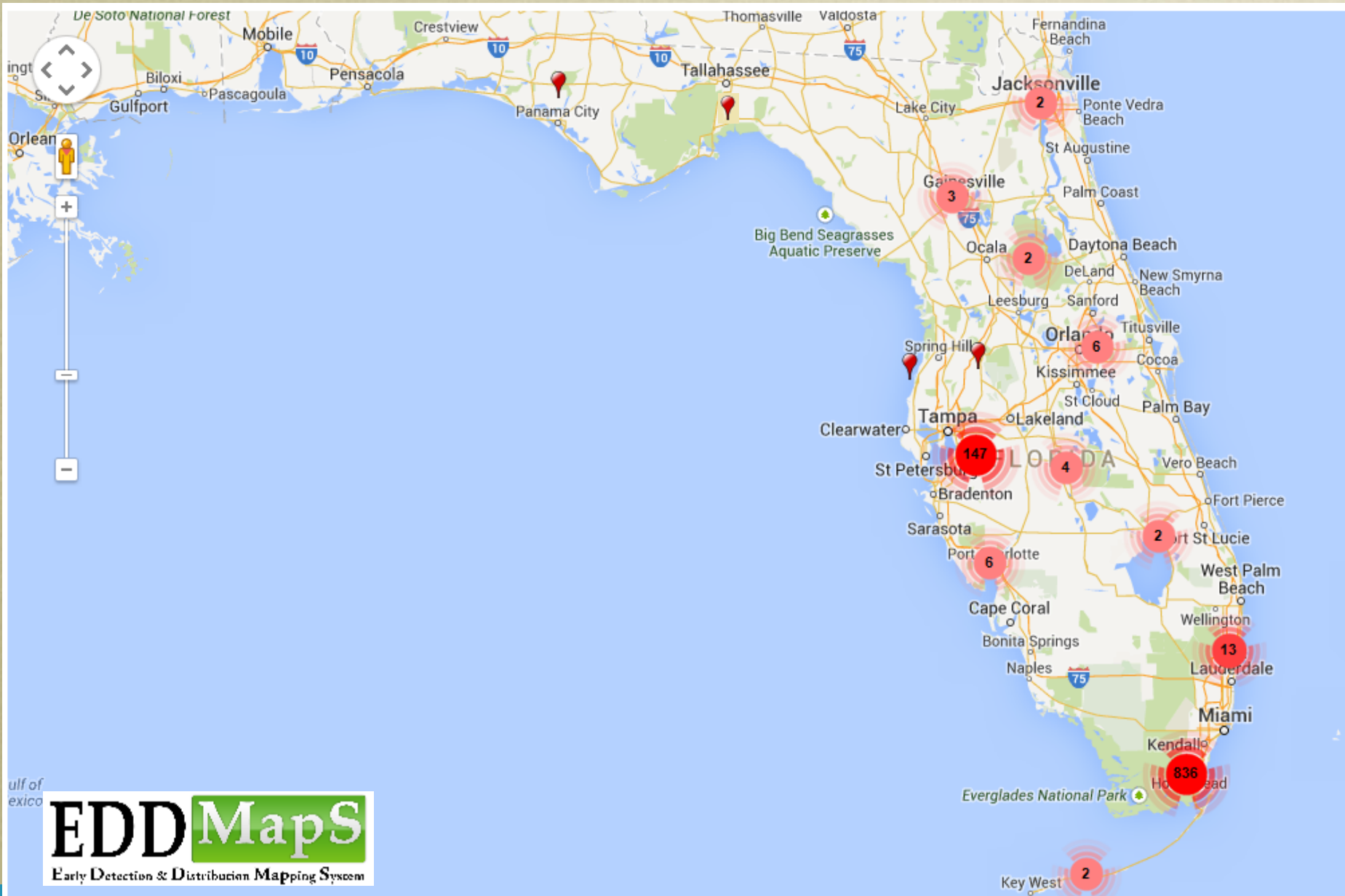


Photo by UF

Photo by FWC

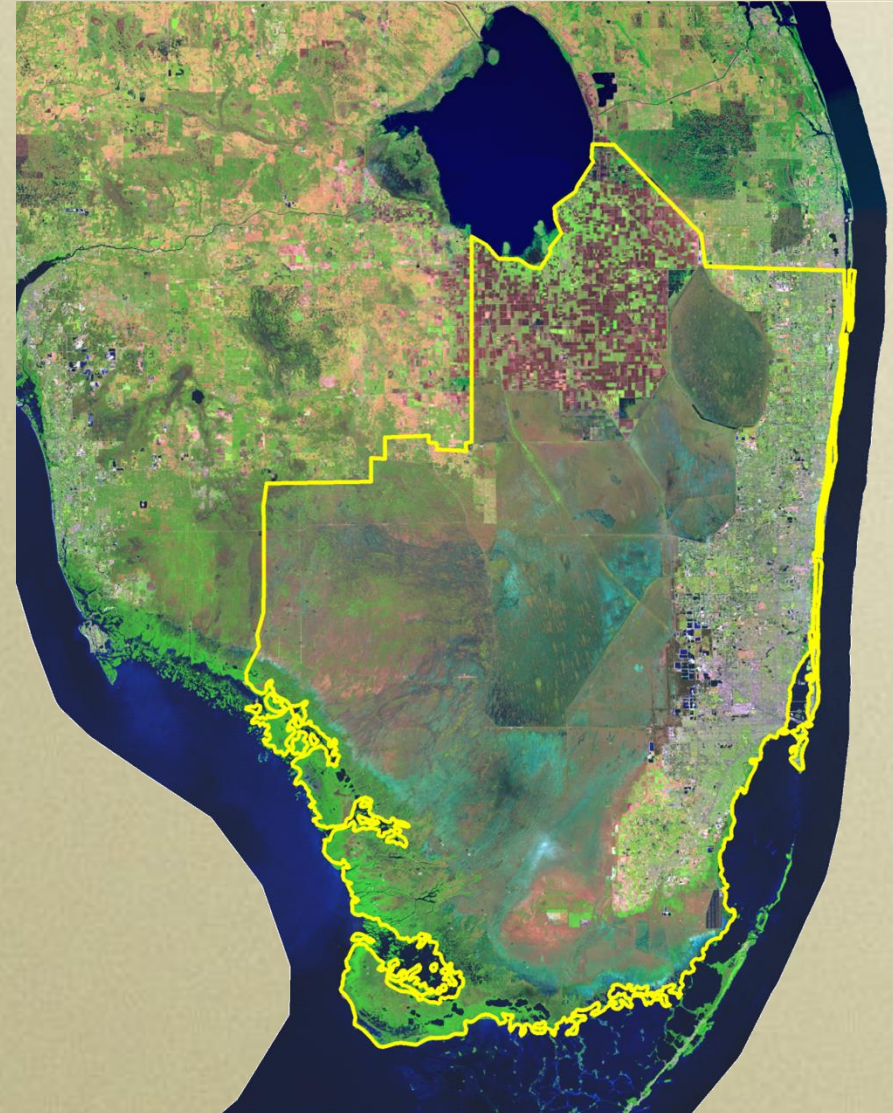


Tegu observations in Florida



- National Park Service
- US Geological Survey
- Florida Fish and Wildlife Conservation Commission
- University of Florida
- South Florida Water Management District
- Miami-Dade County Parks
- Florida Atlantic University
- USDA National Wildlife Research Center
- Florida Department of Transportation
- Florida Power and Light

Everglades CISMA



Miami-Dade County Tegus



Photo by Miami-Dade County



Photo by FWC

- First observation
 - 2008, Miami-Dade County
- Trapping starting in 2009 (ECISMA, UF, USGS, FWC)
- Telemetry (USGS, UF)
- Diet analyses (FAU, UF, USGS)
- Camera traps (FAU, FWC, UF, USGS)

Tegu Observations

ObservationYear

- 2008
- 2009
- 2010
- 2011
- 2012
- 2013
- 2014

Florida City

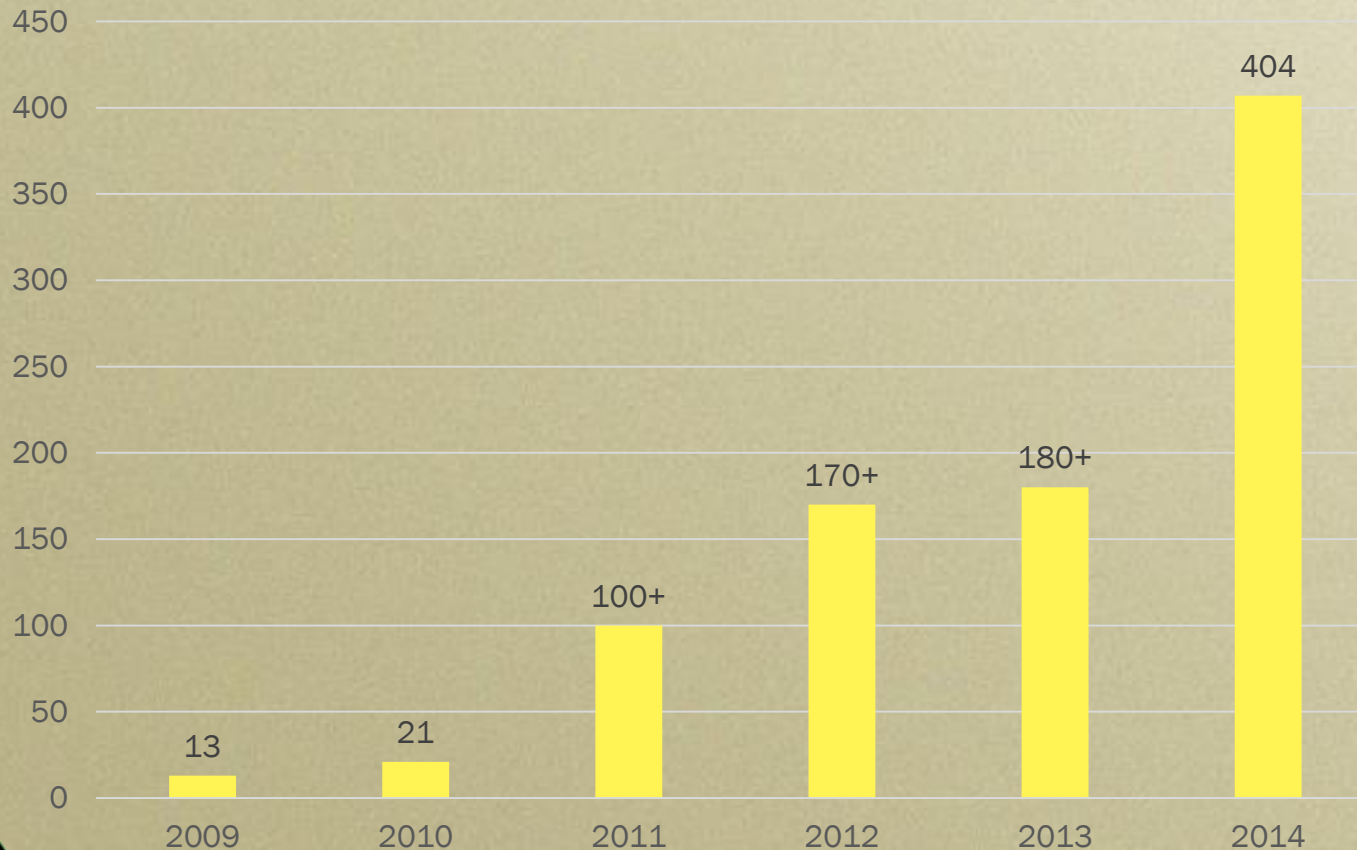
Turkey Point
Power Plant site

Everglades National Park

Southern
Glades WEA

Tegus removed by year*

(*does not include those removed by private trappers)



Tegu diet analysis

Barraco, Master's research, FAU

Tegus collected 2011–2013 (n=169)

Category	Frequency of Occurrence
Crustacea	5%
Gastropoda	46%
Insecta	76%
Plantae	50%
Vertebrates	37%
Eggs	10%



Photo by FWC





Broad dietary range

- Fruiting plants
- Small mammals
- Snails
- Crayfish
- Carrion
- Birds
- Insects
- Turtles
- Snakes
- Lizards
- Frogs
- Eggs



Tegu telemetry

- Home range, daily movements, dispersal, habitat use
- UF: Female tegus
 - Behavior
 - Nesting



Photos by UF



Legend

95% KDE 50% KDE

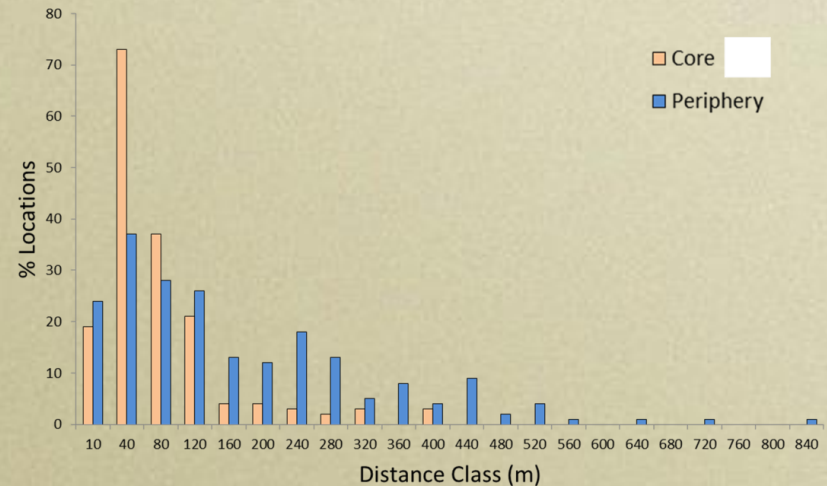
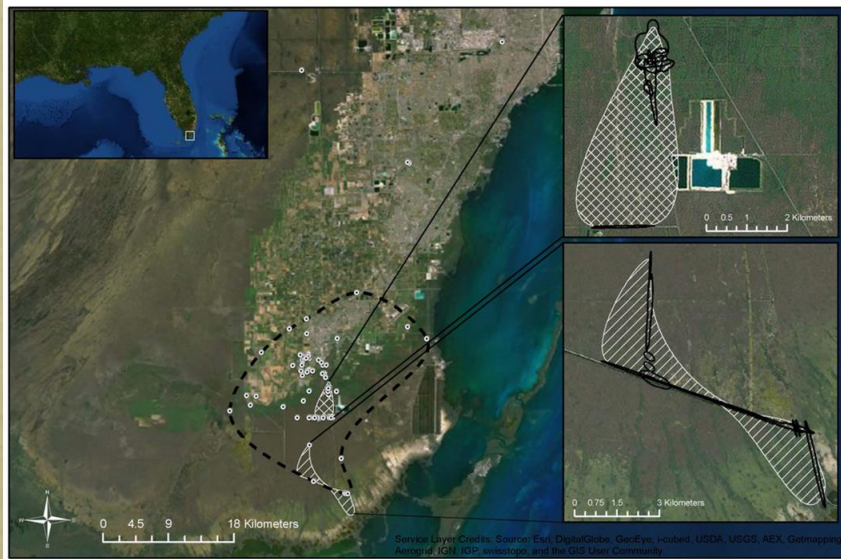
N

0 100 200 400 Meters



How do disturbed and linear habitat affect tegu movement behavior?

Klug et al 2015 Biological Invasions



- Longer movements on periphery of occupied area
- Most activity on levees with disturbed habitat




South Florida: Current Plans for 2015


FWC/UF/NPS/USGS

- Increased trapping and monitoring efforts
- Continued telemetry
- Responding to hotline calls
- Providing traps to residents
- Outreach to agricultural community
- Billboard in Homestead
- Testing different traps

Using live traps to catch tegus
Uso de trampas para animales vivos para atrapar tegus



Tegu

 Call to report a trapped tegu 1-888-lve-Got1 (888-483-4681)
Llame para reportar un tegu atrapado al 1-888-lve-Got1 (888-483-4681)



**REPORT
INVASIVE
SPECIES**

lveGot1.org
1-888-lve-Got-1

Developing better traps

USGS: Novel multi-capture trap design developed in cooperation with commercial trap supplier



Photo by USGS

Objective: Compare catch per unit effort with single-capture trap, and record tegu behavior at traps with trail cameras

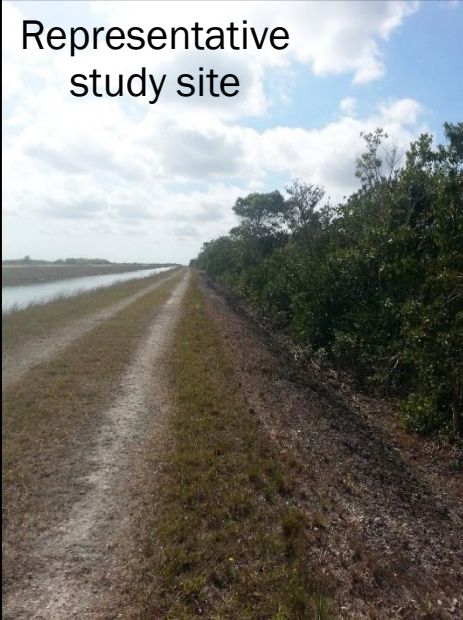


Photo by USGS

UF: "Expendable" trap
Multi-capture
For less secure areas



Photo by FWC



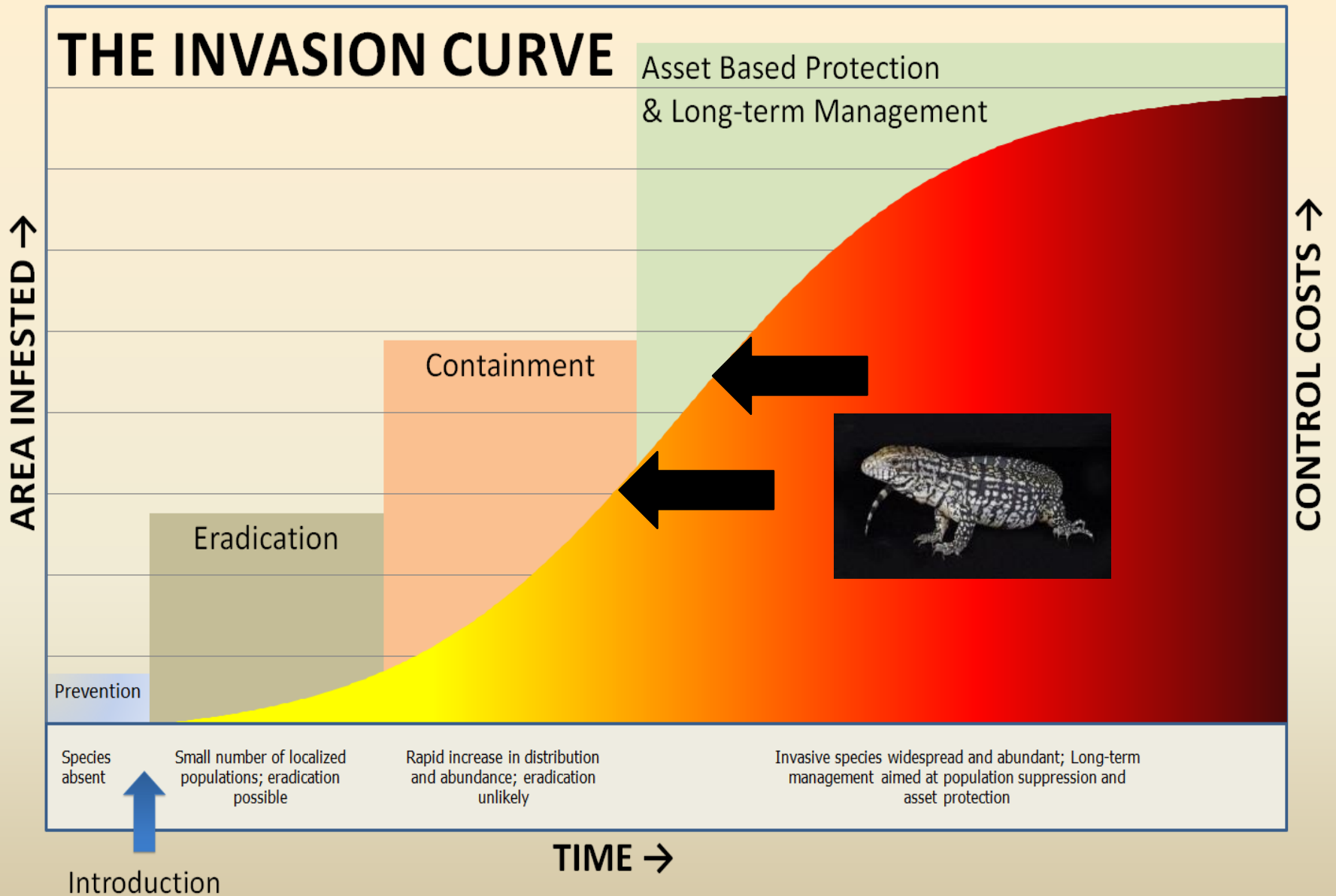
Representative study site



Implementing the “Tegu Curtain”



THE INVASION CURVE



Future activities



Photo by FWC

- **Structured Decision Making Workshop**
 - Prioritize activities
 - Maximize containment
 - Minimize ecological damage
- **Create an interagency management plan**



Thank you!

- Fish and Wildlife Foundation of Florida
- Greater Everglades Priority Ecosystem Science Program
- National Park Service
- USGS Invasive Species Program
- USDA National Wildlife Research Center



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