Early Detection, Rapid Response, and Containment of
the Argentine Black and White Tegu Along a
Suburban/Natural Area Interface

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1National Park Service (NPS), 2University of Florida (UF), 3Florida Fish and Wildlife Conservation Commission (FWC), and 4U.S. Geological Survey (USGS)
With bonus species!
Argentine black and white tegu (*Salvator merianae*)

- Native to eastern Brazil, Paraguay, Uruguay, and northern Argentina
- Largest and most temperate tegu species
- Utilize burrows for shelter and nesting
- Average clutch size ~35
- Omnivorous and active foragers

Photo by Brittany Mason, UF
Argentine black and white tegu (Salvator merianae)

With early socialization and frequent handling, a tegu lizard can learn to walk on a harness. petponder.com
Argentine black and white tegu
(*Salvator merianae*)
Tegu invasion landscape

- Determined to be breeding in 2008 in rural area near Florida City
- Tegus are utilizing disturbed areas with cover in natural, suburban, and agricultural areas
- Trapping began in 2009 and effort has expanded every year
- National Park Service, University of Florida, and Florida Fish and Wildlife Commission Contractor currently running over 300 traps
What’s the problem with tegus?

- Habitat and diet generalists
- Found on levee and berm systems, in agricultural groves and fields, and in trailer parks
- Diet items include seeds, insects, fish, amphibians, reptiles, and mammals
- Especially fond of eggs
Listed species in Everglades National Park (ENP)

- Federally listed
  - 8 plants
  - 6 invertebrates
  - 3 fish
  - 9 reptiles
  - 10 birds
  - 3 mammals
- >50% of Park designated as critical habitat
- ~180 state listed plants and animals
Goal is containment
Live trapping and camera monitoring
Annual Tegu Removals (Trapped)
## Traps on the western front (NPS/USGS)

**Tegus removed by trap line (number of traps)**

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>April 2018</th>
<th>April 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>C-111N</td>
<td>0</td>
<td>0</td>
<td>1 (11)</td>
<td>10 (14)</td>
<td>32 (16)</td>
<td>7 (17)</td>
<td>17 (14)</td>
</tr>
<tr>
<td>AERO</td>
<td>0</td>
<td>13</td>
<td>20 (17)</td>
<td>20 (10)</td>
<td>30 (12)</td>
<td>5 (12)</td>
<td>11 (10)</td>
</tr>
<tr>
<td>L-31W</td>
<td>1</td>
<td>4</td>
<td>5 (16)</td>
<td>3 (5)</td>
<td>22 (7)</td>
<td>2 (7)</td>
<td>11 (5)</td>
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<tr>
<td>Others</td>
<td>100</td>
<td>215</td>
<td>228 (136)</td>
<td>204 (74)</td>
<td>235 (83)</td>
<td>21 (88)</td>
<td>62 (75)</td>
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<tr>
<td>Total</td>
<td>101</td>
<td>232</td>
<td>254 (190)</td>
<td>237 (103)</td>
<td>319 (118)</td>
<td>35 (117)</td>
<td>101 (104)</td>
</tr>
</tbody>
</table>

Redlands Agricultural Area
Challenges in the suburban/agricultural landscape

Tegus in sawgrass marsh ecosystem

Tegus in suburban/agricultural landscapes
Challenges posed by restoration

- C-111 spreader project is changing the landscape
- Plugs create land bridges into ENP

Photo by Mackenzie Cahill, NPS
Additional tools for suburban/ag landscape

- Outreach at local events
- FWC trap/loan program
- Detector dogs
- Telemetry
- Need for monitoring and EDRR plan for along park boundaries
What next? Traps, traps, traps, and more traps

- NPS add traps along ENP boundary
- FWC hire more private trappers
- More consideration needed on where to put traps
- Dogs and telemetry
- More engagement of community

Photo by Meghan Connelly, NPS
Photos by Sarah Cooke, UF
Bonus species!
Iguanas and agamas

Green iguanas
(Iguana iguana)

- Green iguana sightings up within ENP
- Coming from suburban areas and from Florida Bay
- Found on several keys in Florida Bay
- Remain elusive and difficult to capture

Photo by NPS
Bonus species! Iguanas and agamas

Black spiny-tailed iguanas (*Ctenosaura similis*)

- Sightings near Park boundary in 2018
- First sighting of black spiny-tailed iguana in the Park
- Coming from urban areas
Agamas: Managing to “Contain”

Peter’s rock agama, aka redhead agama

*(Agama picticauda)*

- Agama invasion of Flamingo maintenance yard
- Reporting went wrong
- “Eradication” went right
- They’ll be back
Final lessons

- Need more trapping/response capability
- Need more information on use of landscape
- Need outreach/inreach
- Need to formalize plans
- Need monitoring and EDRR for invasive species integrated in CERP projects

Photo by Brittany Mason, UF
Thank you!

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For more information on tegus:

- Thursday, Session 33
  - Sarah Cooke, UF
- Poster session one
  - Jenna Cole, UF
  - Justin Dalaba, UF
  - Andrew Gritzmaker, Broward College
  - Brittany Mason, UF

Photo by Ryan Baer, NPS