

# Update on Current Research: Southeast Florida Tegu Operation

Kyle Allen  
University of Florida



# Research Updates

- 2014 and Preliminary 2015 Results:
  - Trapping and Removal Efforts (UF/USGS/NPS/FWC)
  - Telemetry Study
    - Female Home Range (UF)
    - Brumation Activity (USGS)
  - Nest Excavation (UF)



Photos by Dustin Smith, Zoo Miami

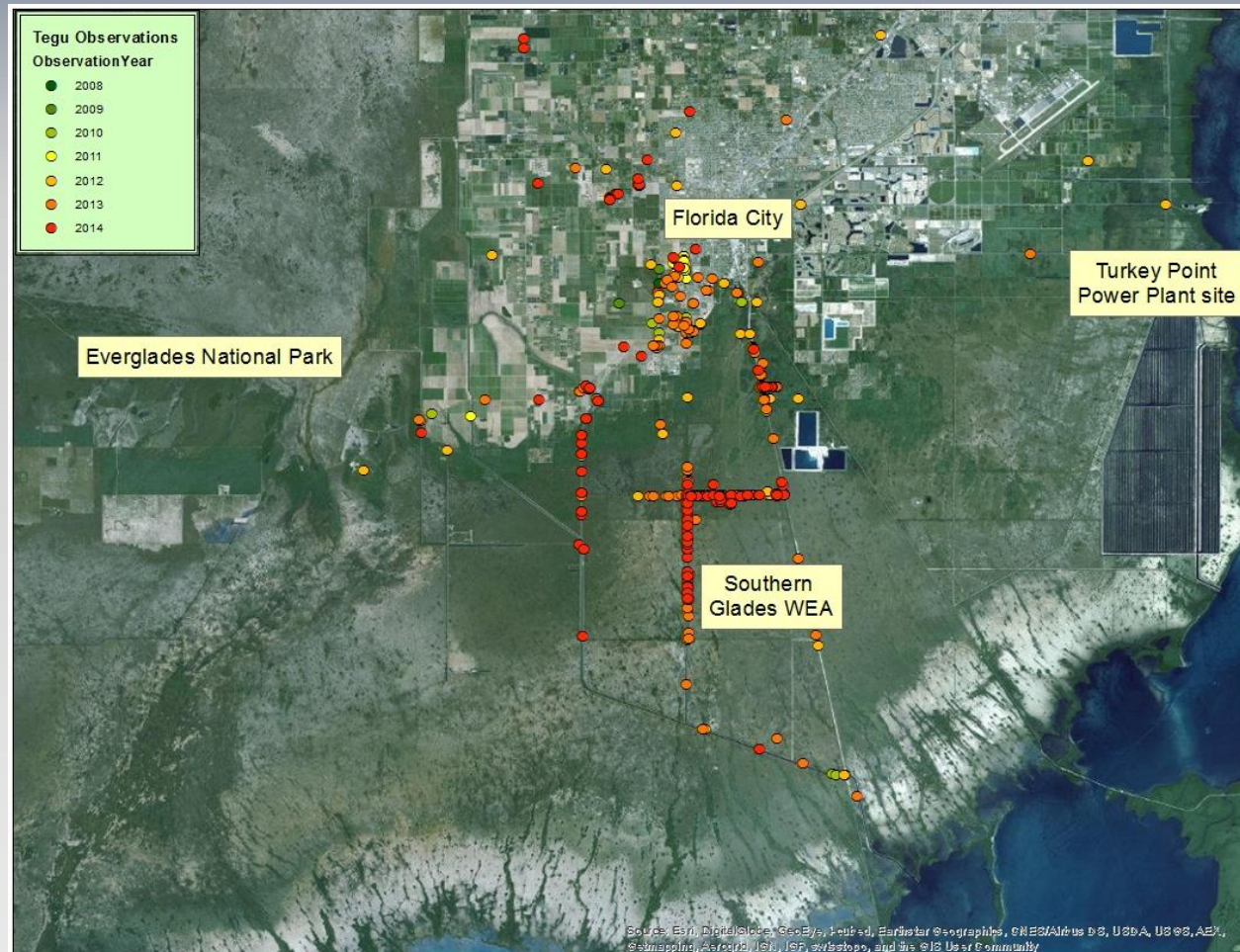
# Tegus in South Florida

First observation-2008

Trapping initiated-2009

Subsequent studies

- Telemetry
- Diet analyses
- Camera traps
- Burrow scoping

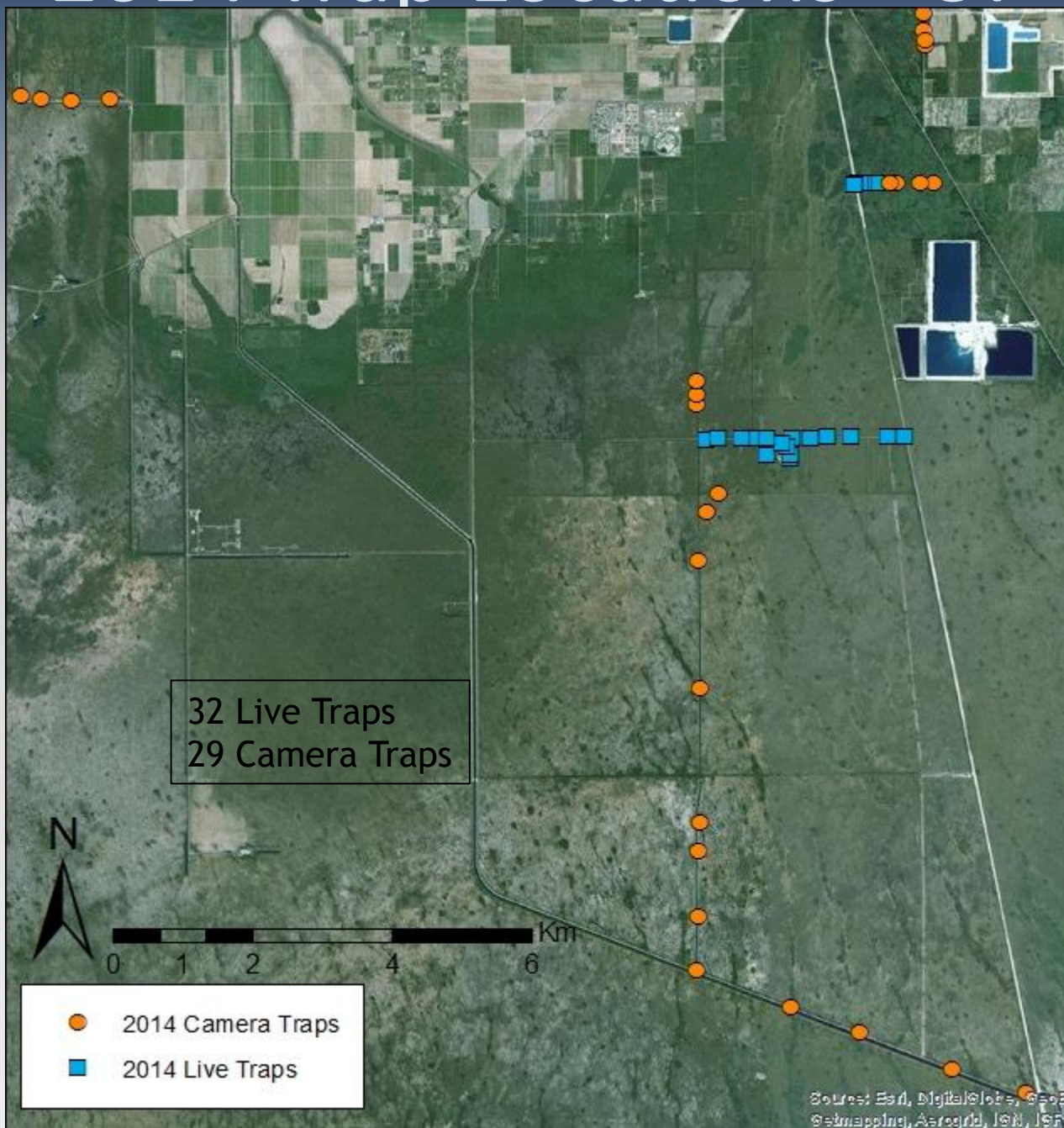


# Trapping Effort

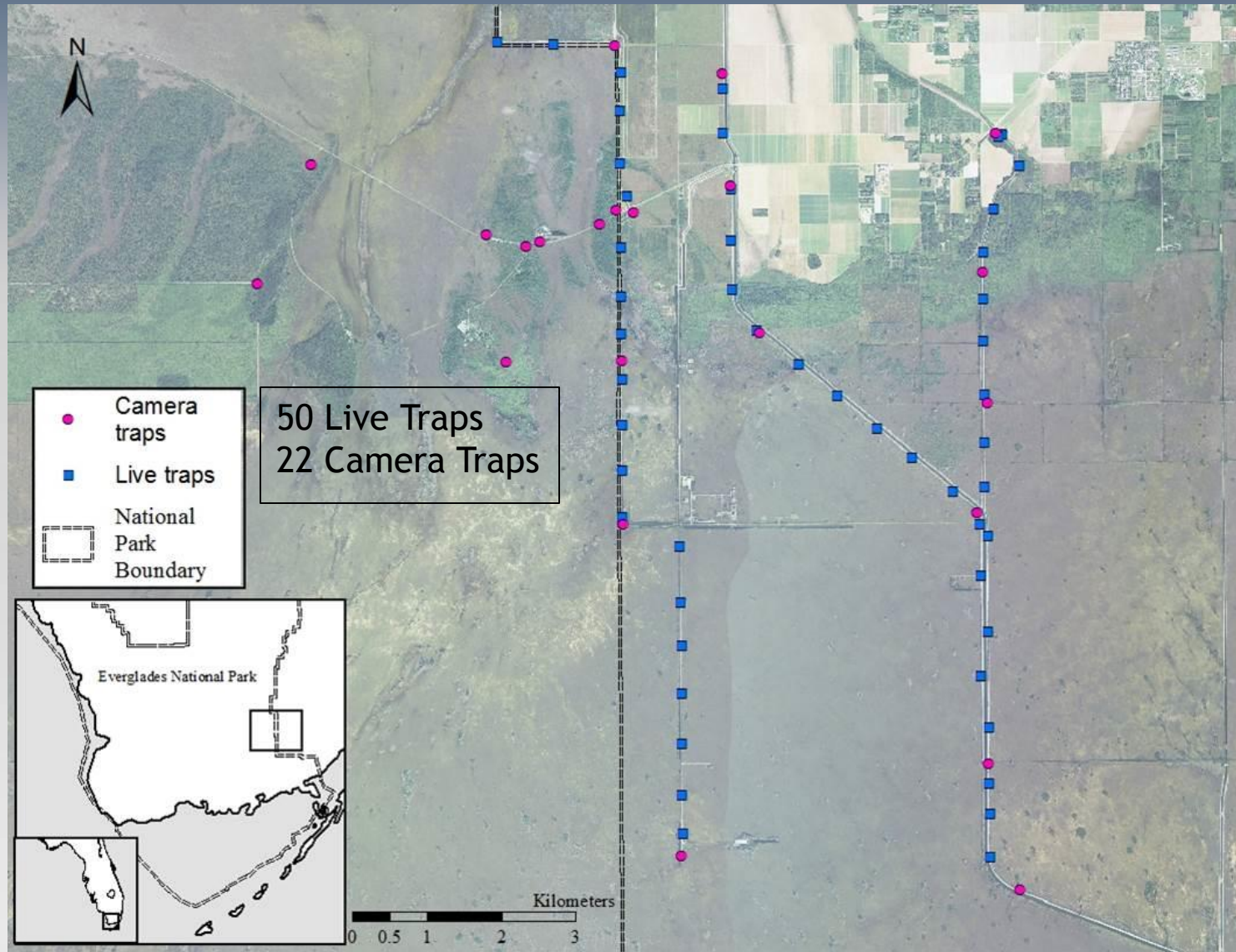
- 2014 Trap Info (Total #)
  - 82 Live Traps
  - 51 Camera Traps
- 2015 Trap Info (Total #)
  - 135 Live Traps
  - 98 Camera Traps



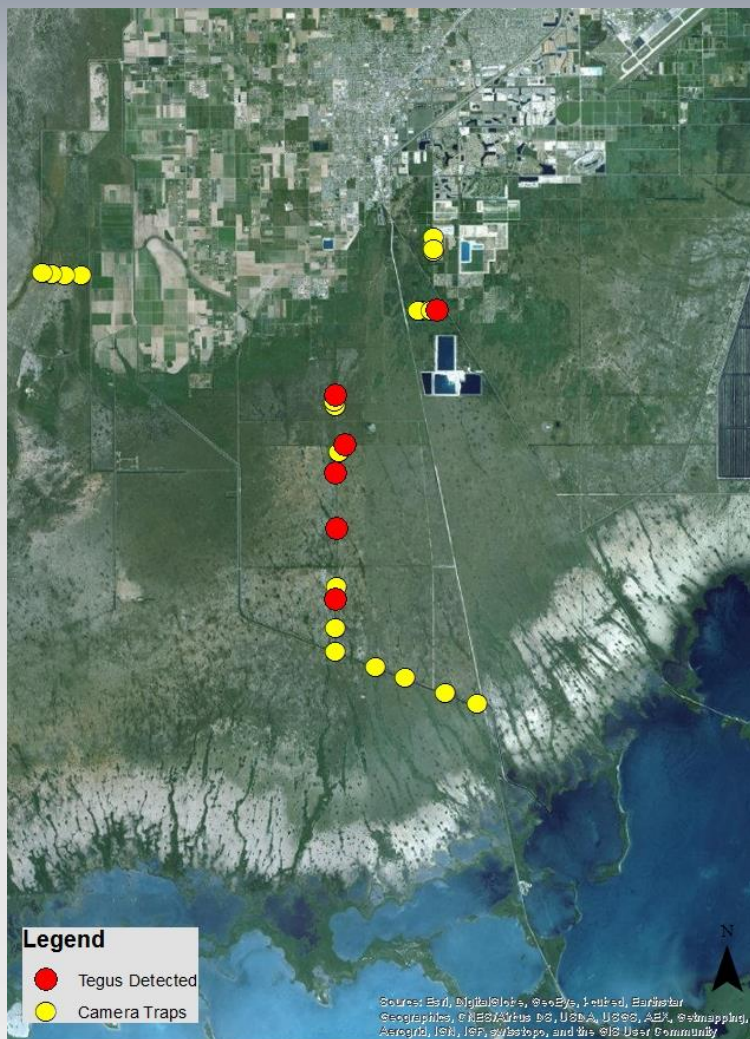
# 2014 Trap Locations - UF



# 2014 Trap Locations - USGS

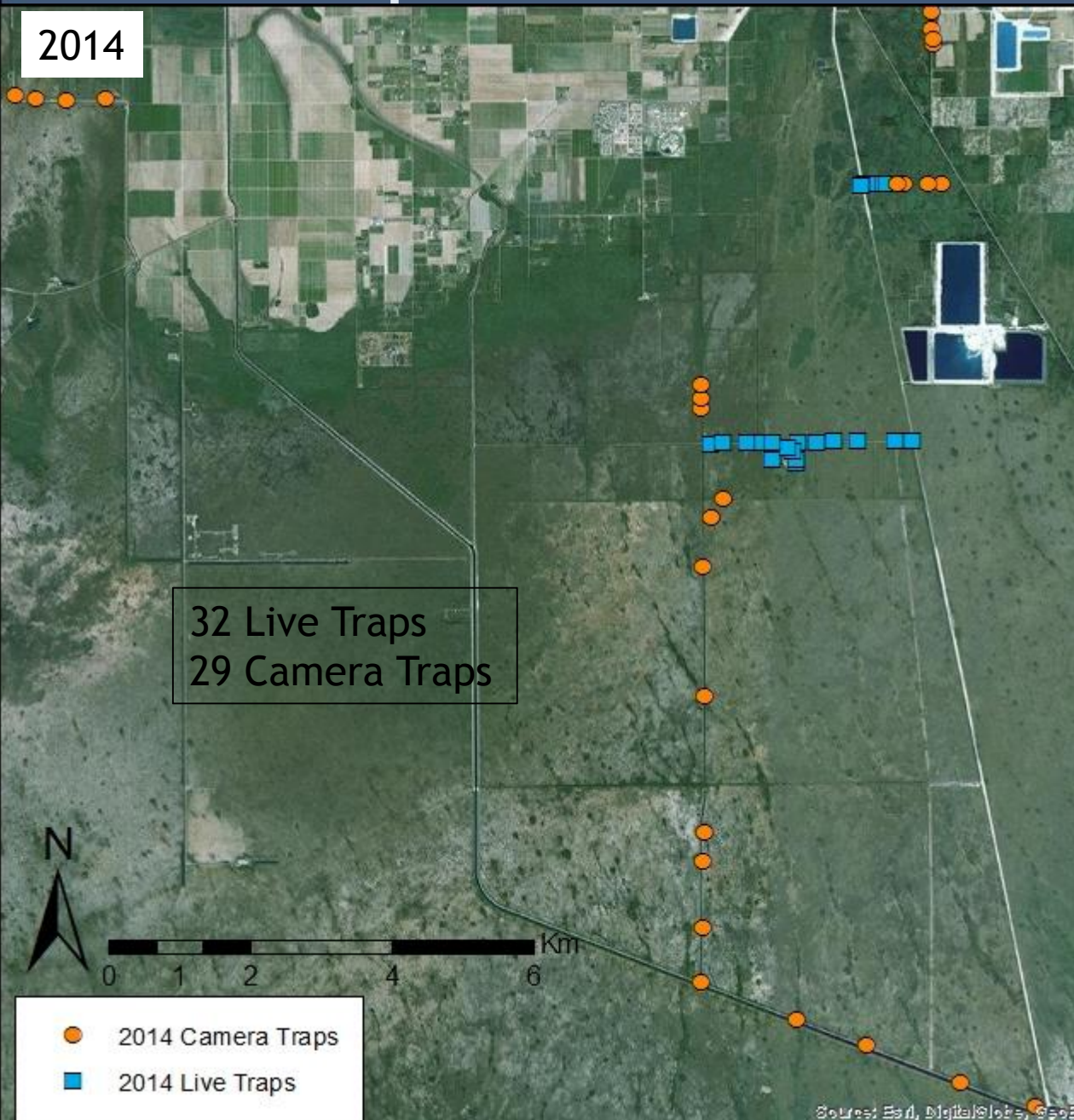


# Camera Trap Success



# Trap Locations - UF

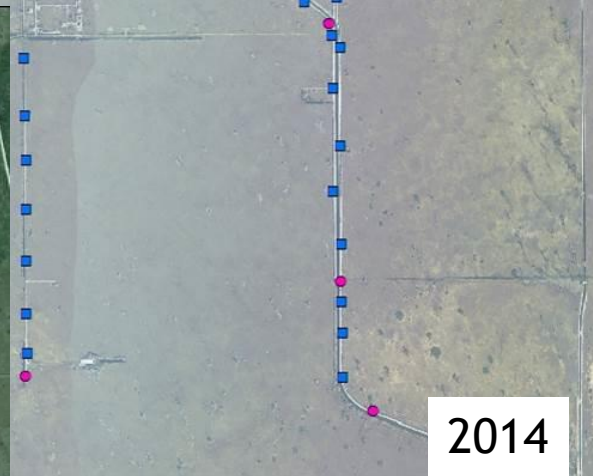
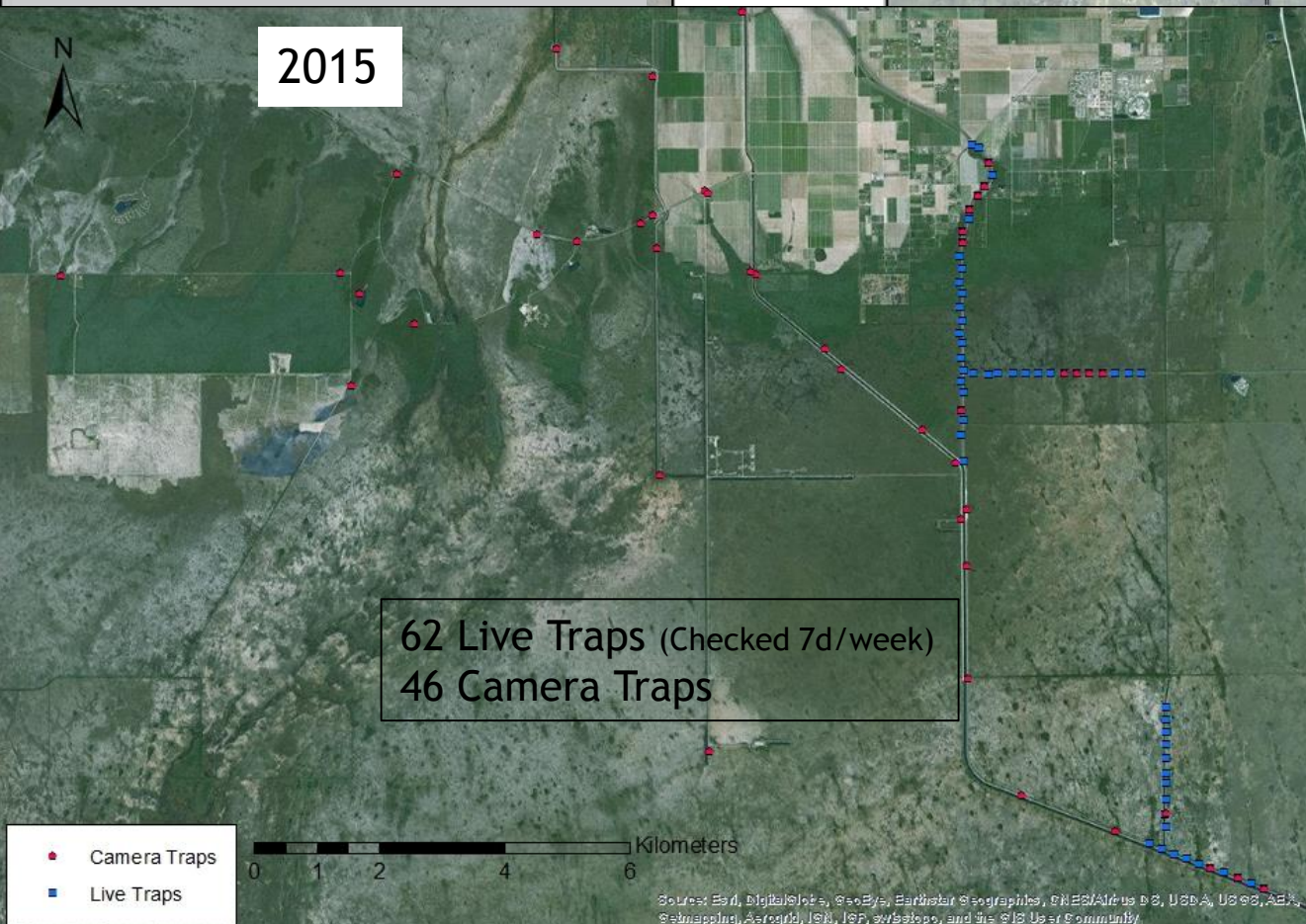
2014



2015



# Trap Locations - USGS

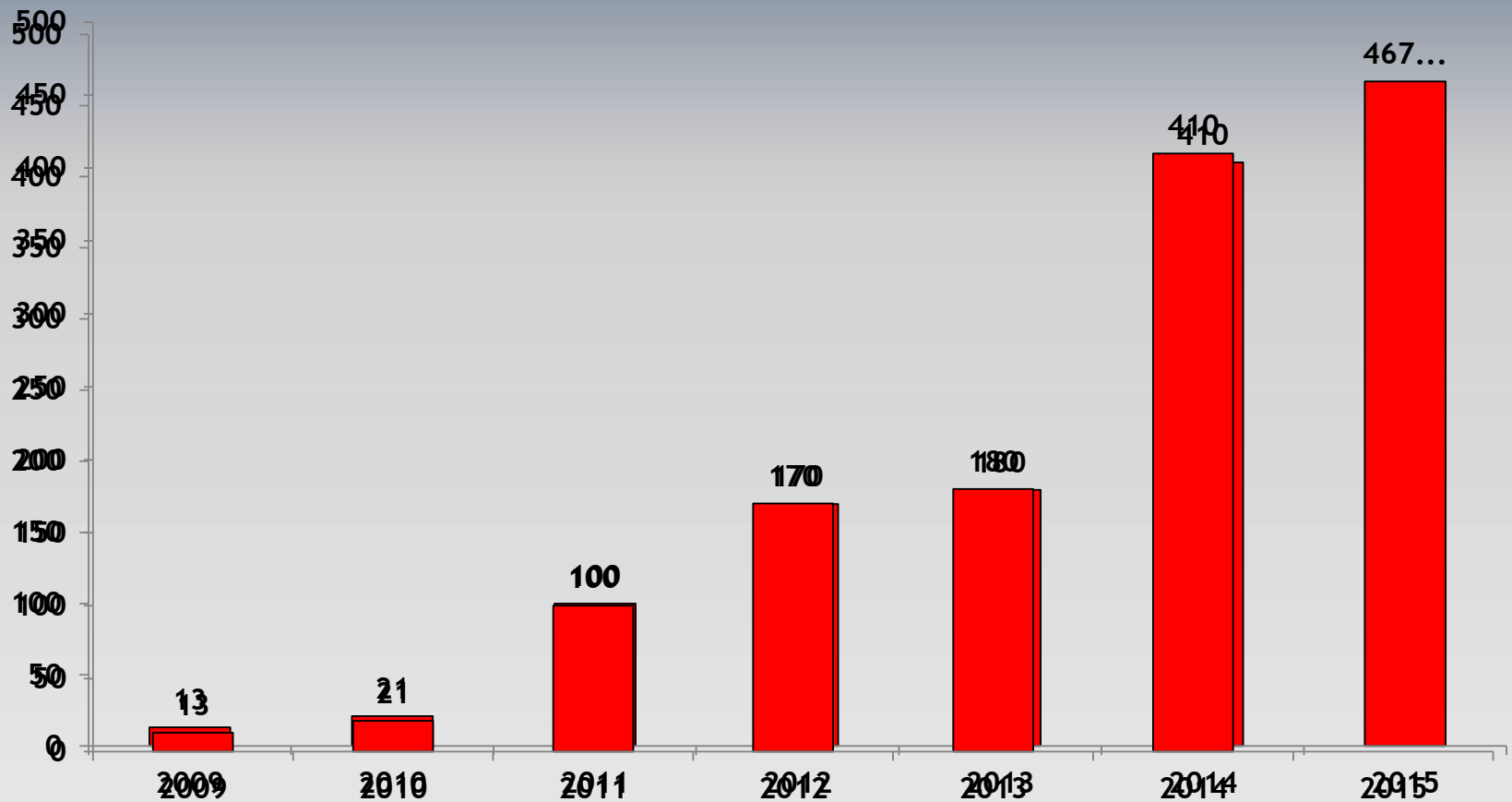


50 Live Traps  
22 Camera Traps

# Trap Locations - FWC



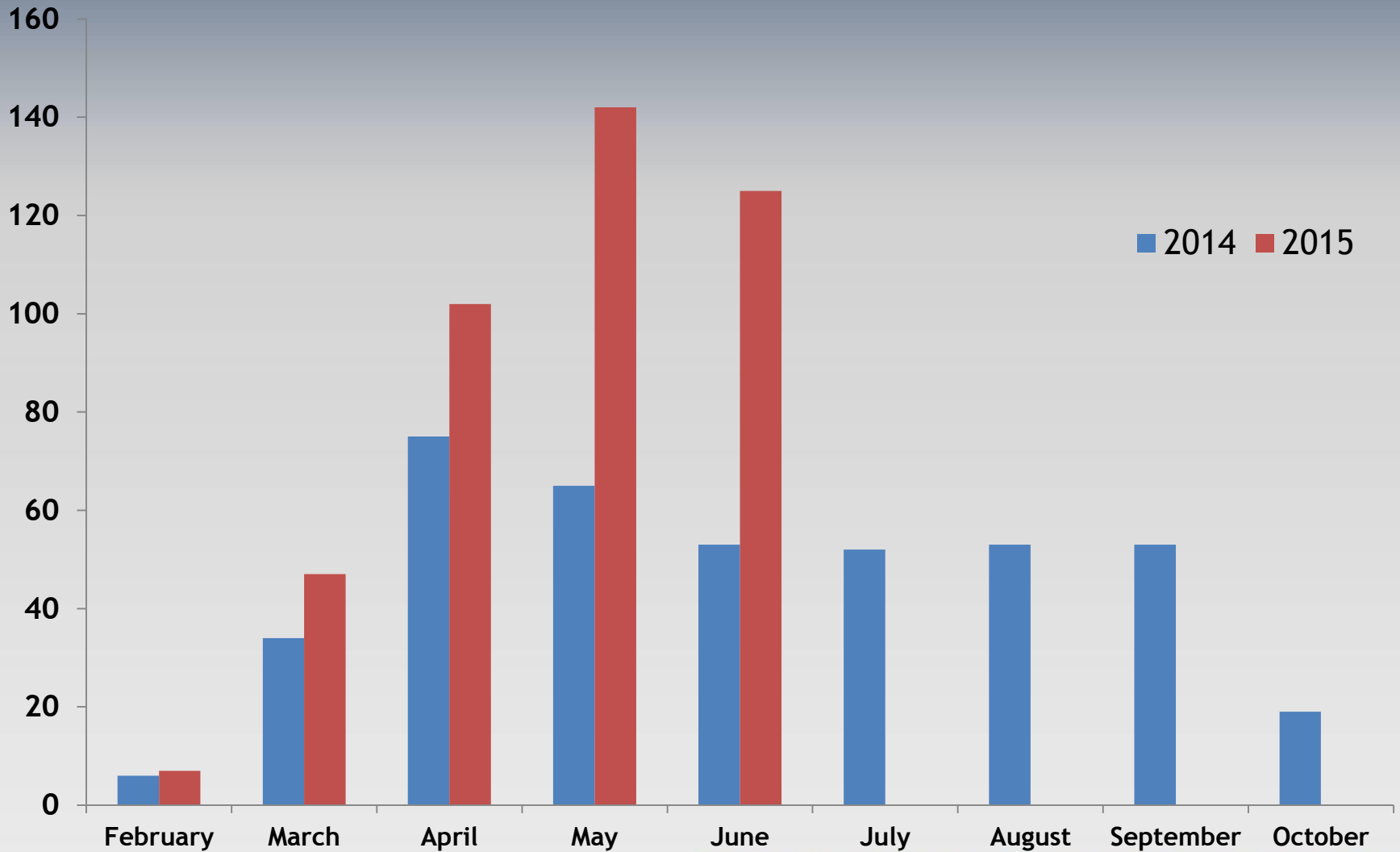
# Tegus removed by year\*



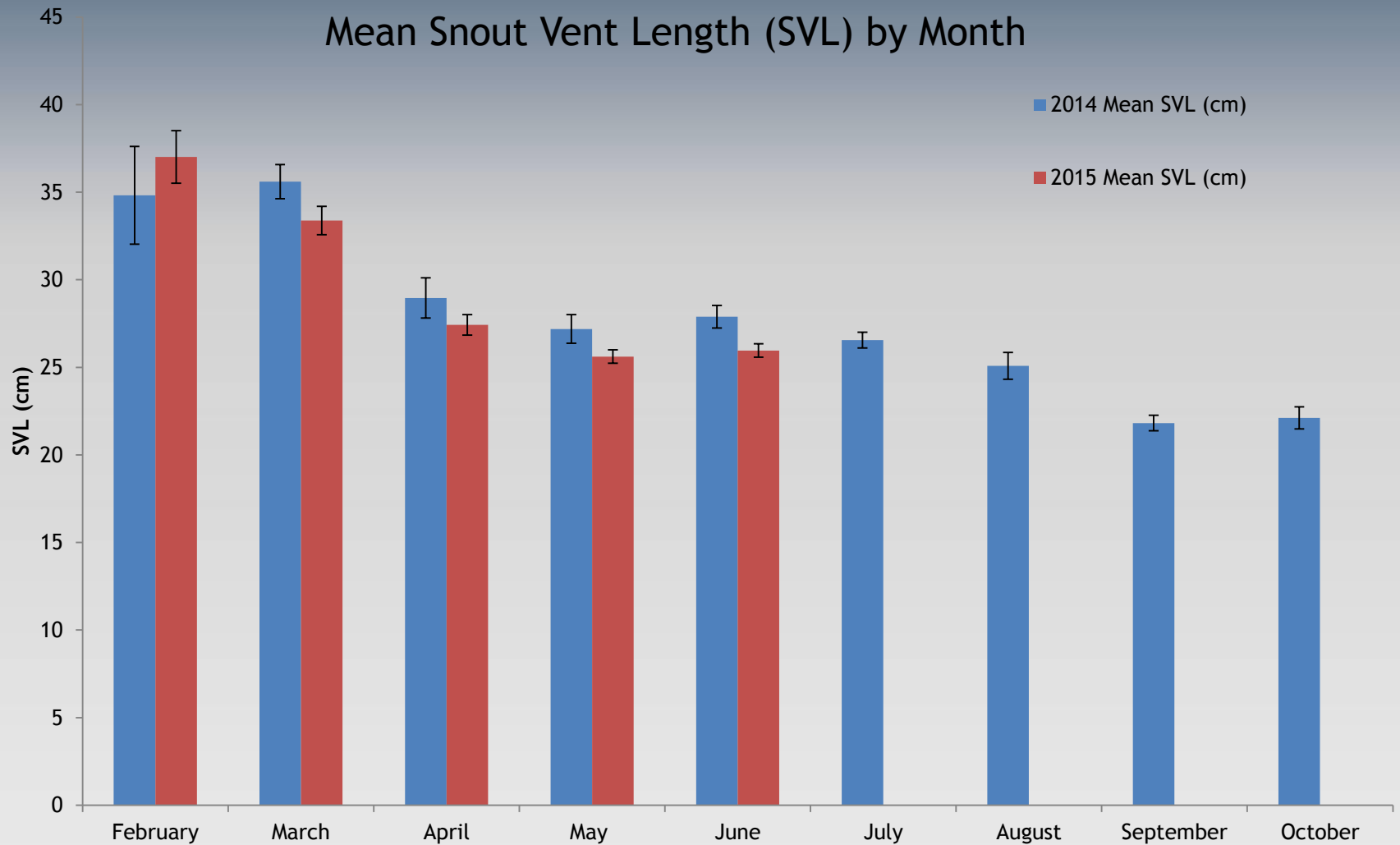
\*Does not include private trappers

# Results

## Total Tegus Removed by Month

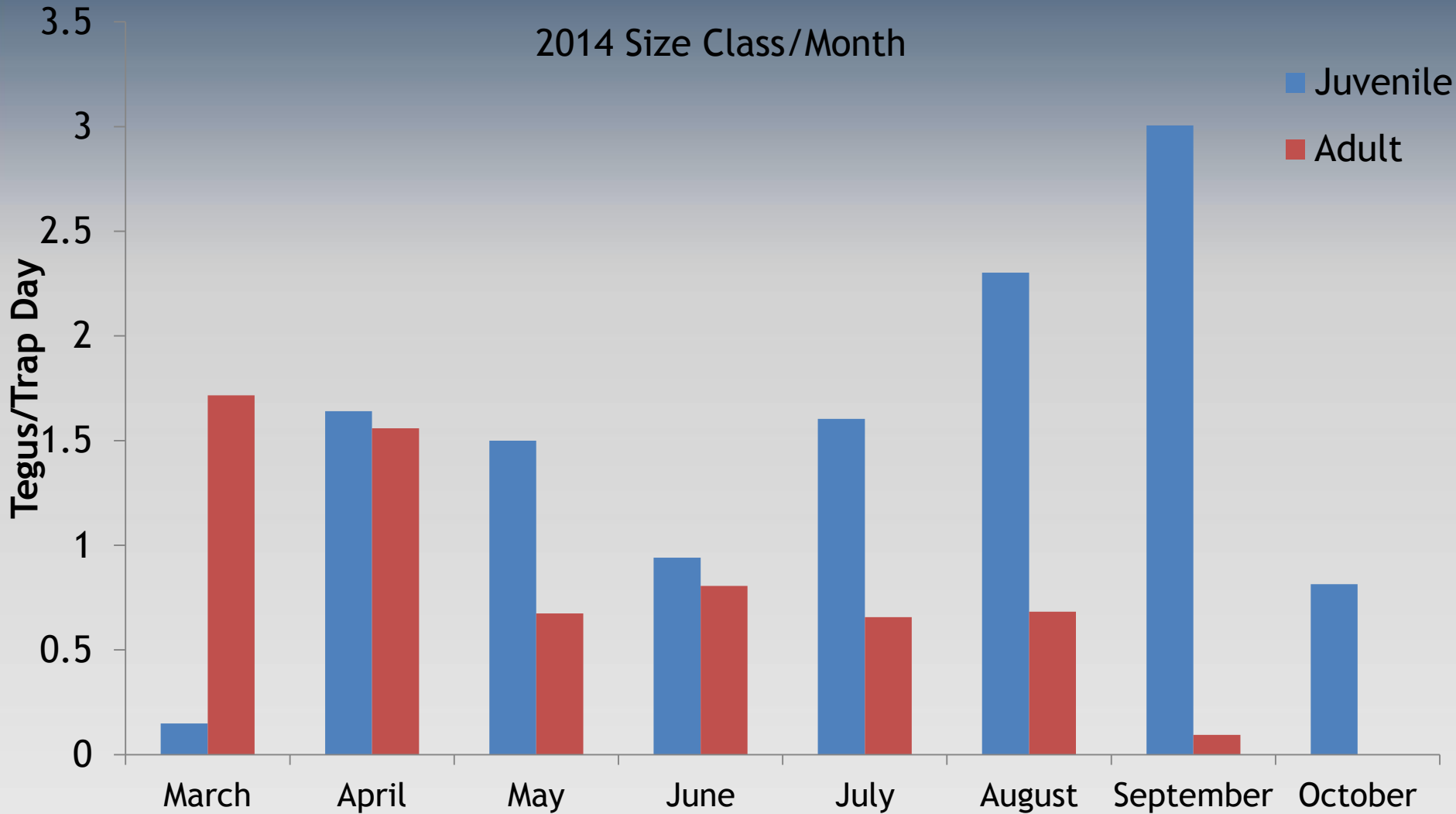


# Results



\*Mean tegu size decreased throughout trapping period

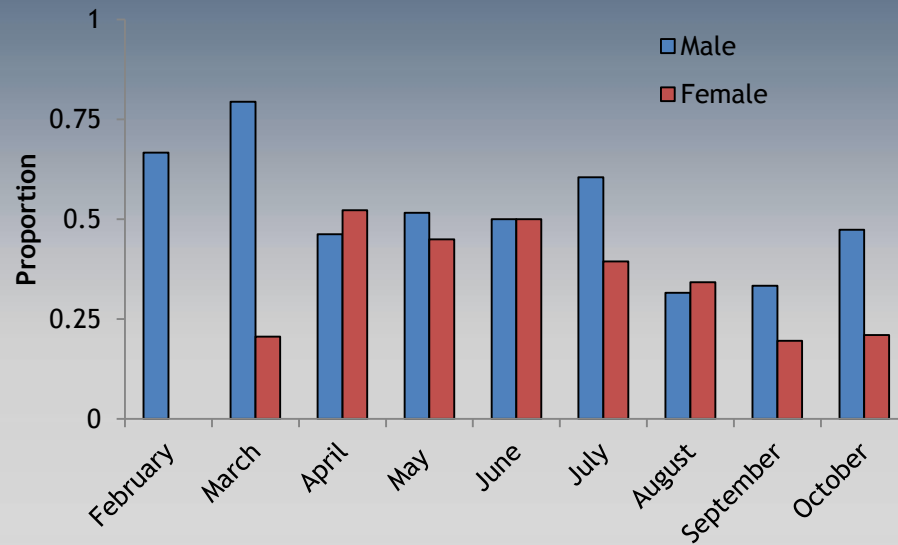
# Results



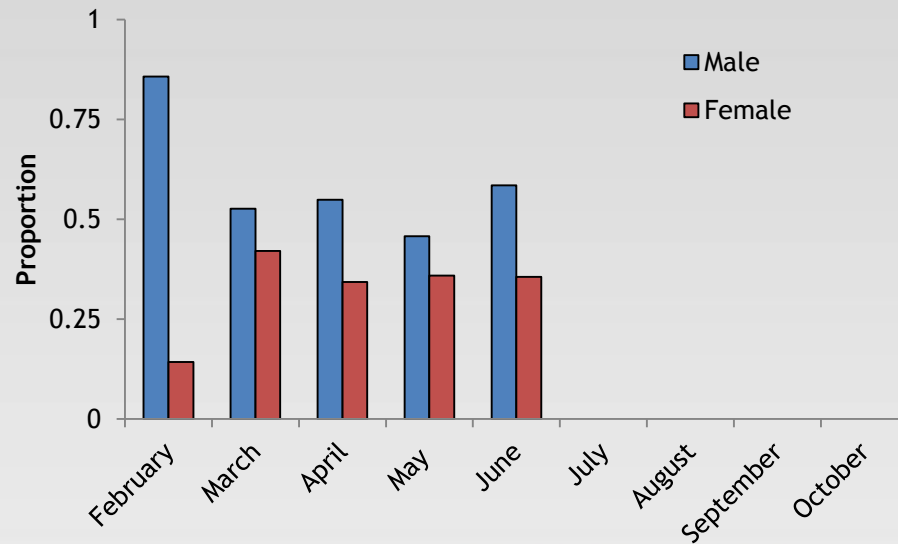
\*Larger, mature tegus emerge earlier in the year

# Results

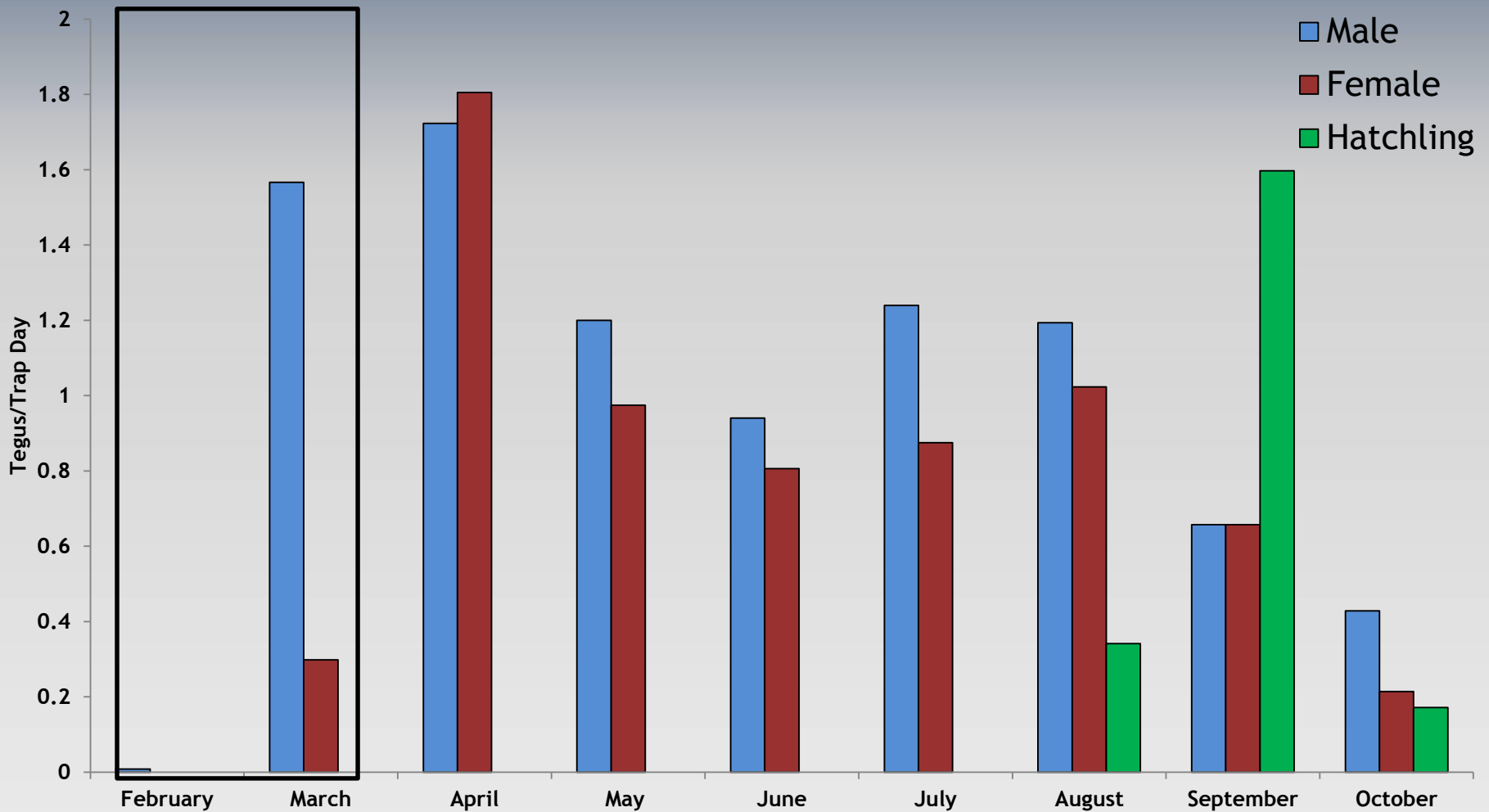
2014



2015

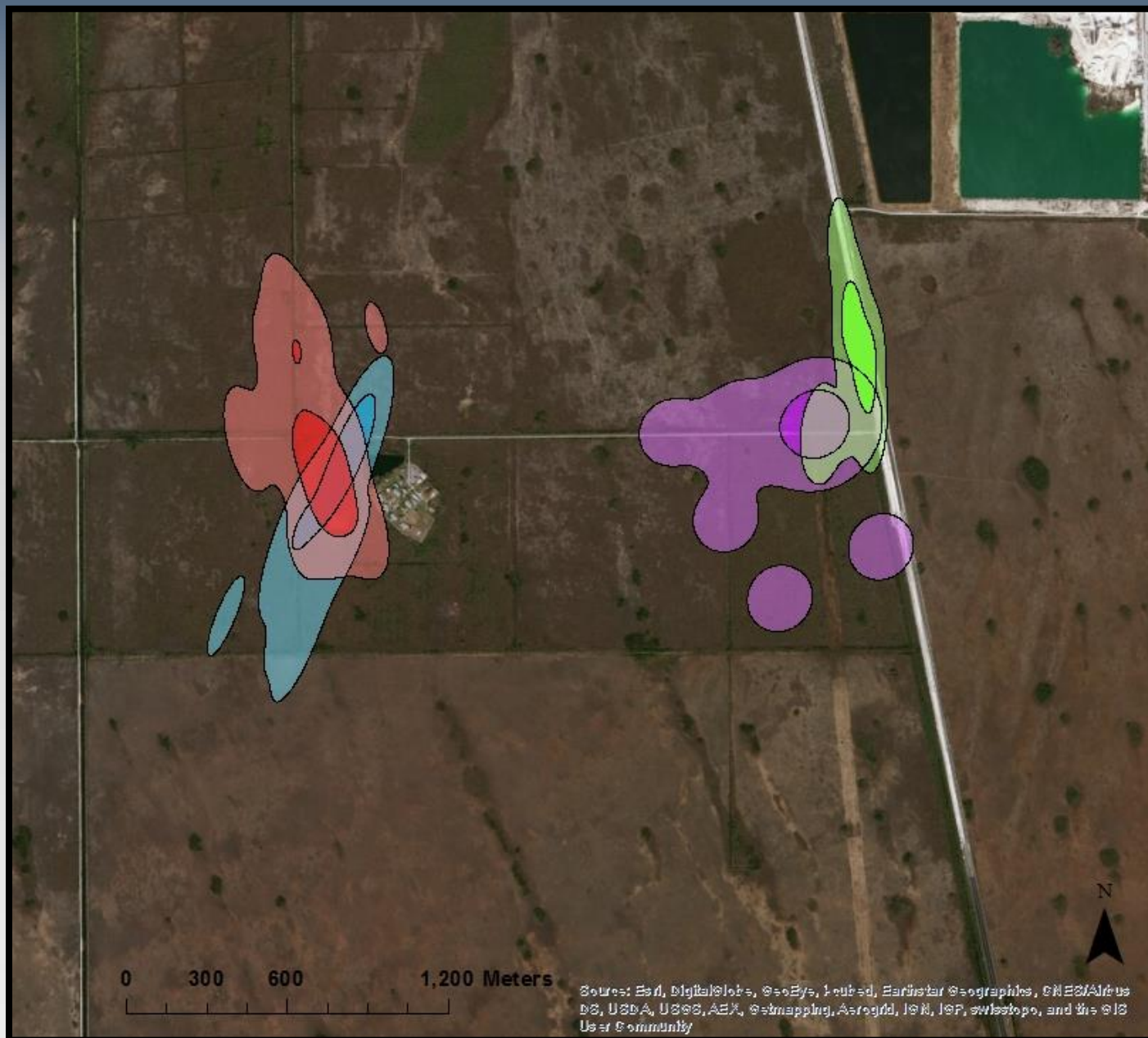


# Results



\*Protandric emergence

# 2014 Female Tegu Home Ranges



Sources: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, IGP, swisstopo, and the GIS User Community



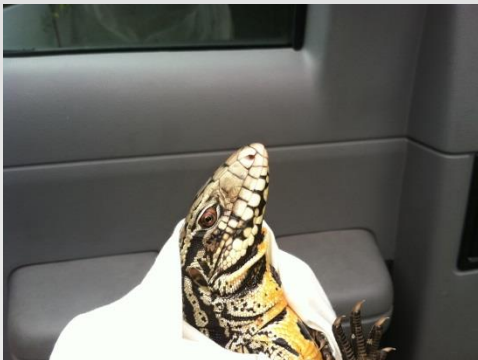
# Nest Excavation



EVERGLADES CISMA

# Discussion/Management Implications

- **Start and stop of brumation**
- **Protandric emergence (males first then females)**
- **Sizes and sexes to focus removal effort on**
  - Dispersing tegus
  - Reproductive females
- **Trap placement and density**
- **Trap characteristics that increase CPUE of tegus**



# Acknowledgements

- Croc Docs
  - Tegu Field Unit
- USGS
  - Michelle McEachern Collier
  - Emma Hanslowe
  - Trapping Crew
- Florida Fish and Wildlife Commission
  - Jennifer Ketterlin Eckles
  - Jake Edwards
- South Florida Water Management District
- Venom1

# Thanks



Nick Vitale

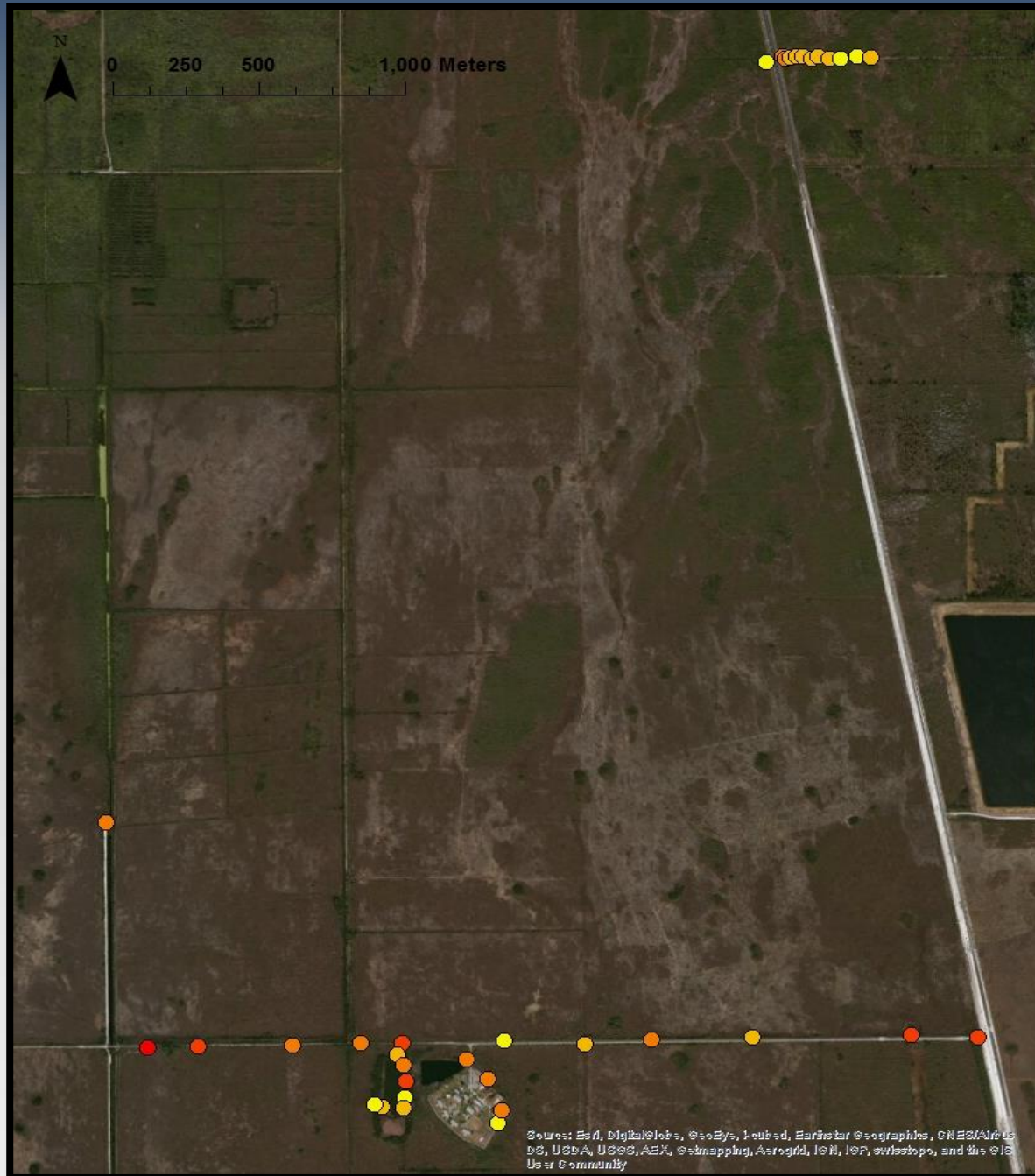
**EVERGLADES CISMA**

**EVERGLADES CISMA**

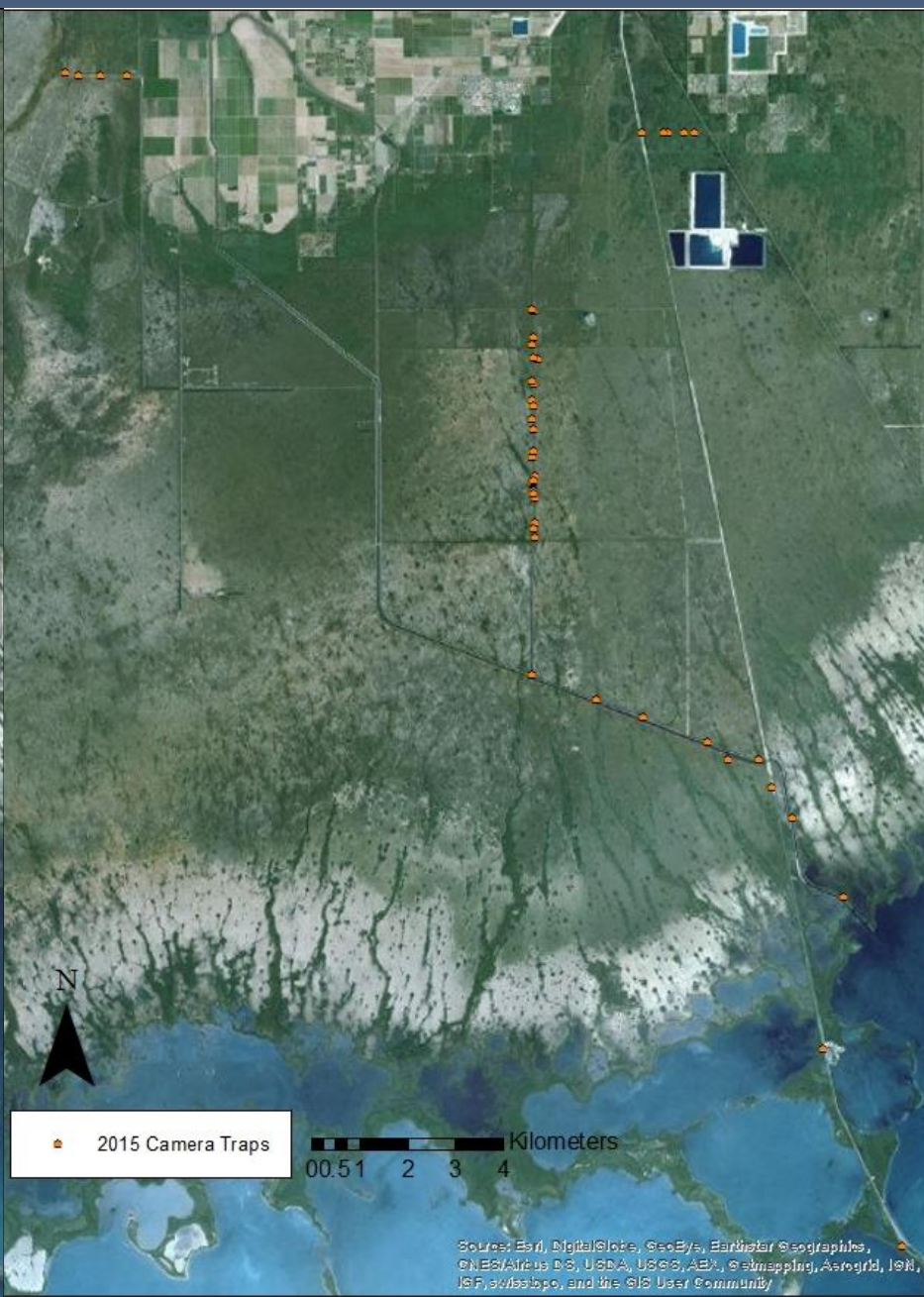
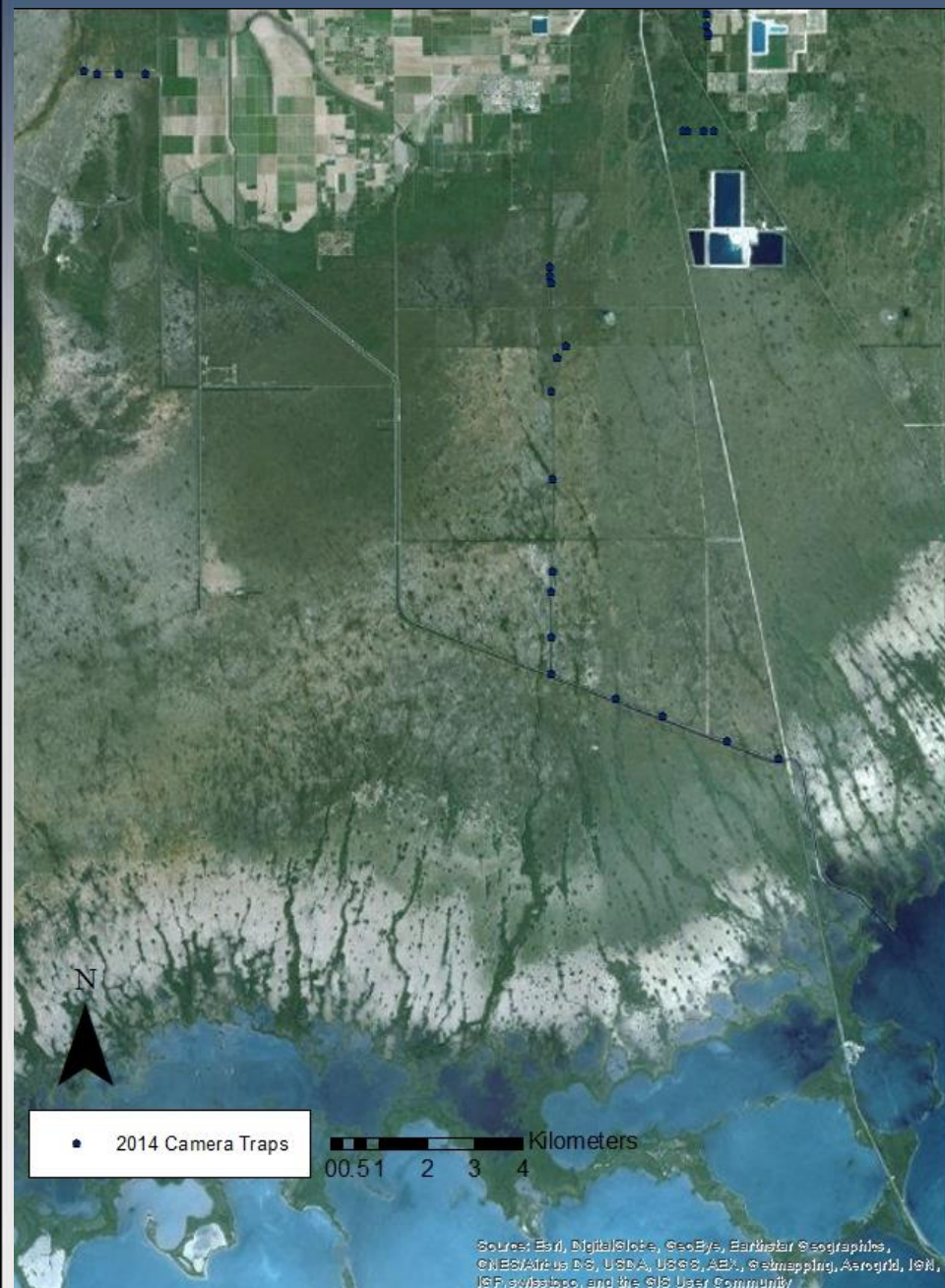
# Objectives

- Determine population demographics
- Measure removal efficacy
- Determine seasonal activity patterns specific to South Florida
- Evaluate spatial and temporal occurrence

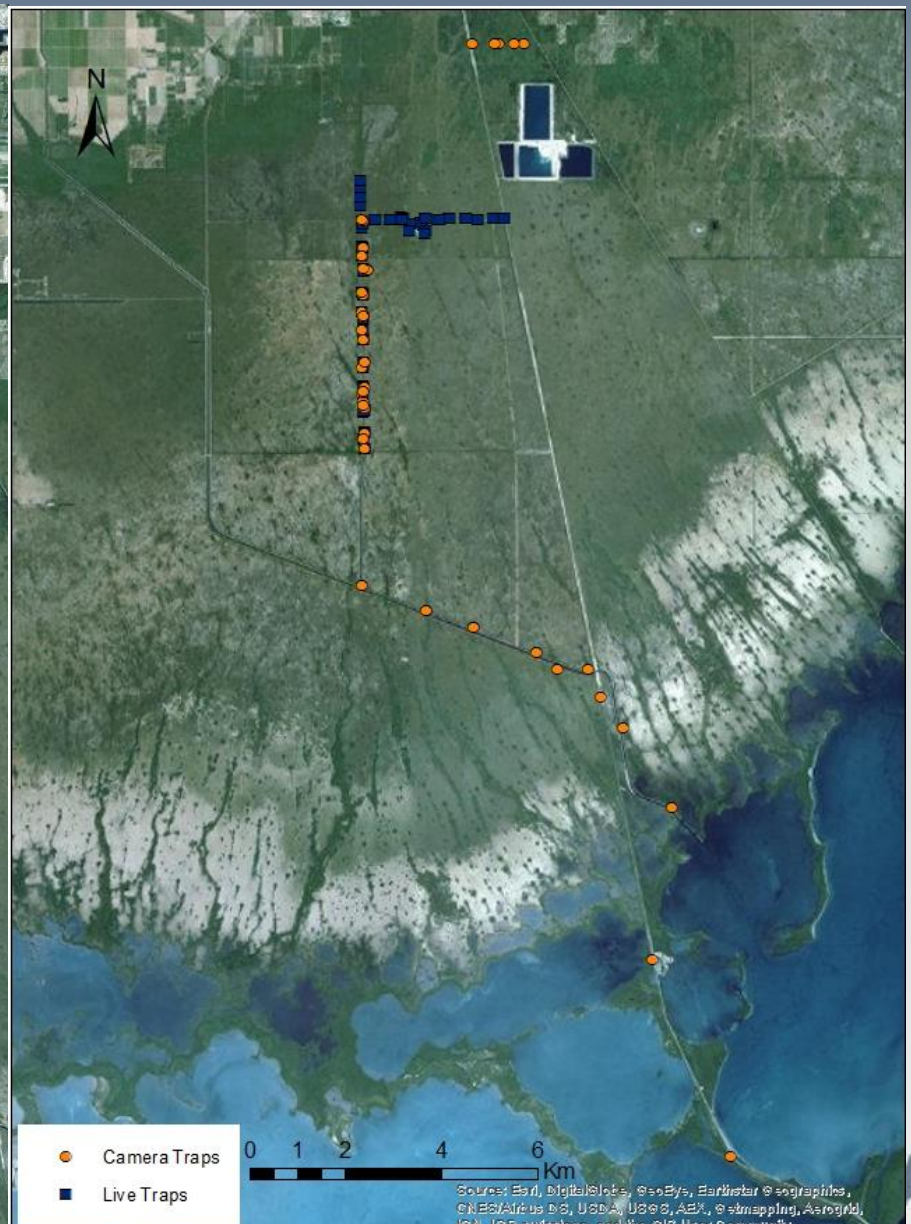
# Live Trap CPUE



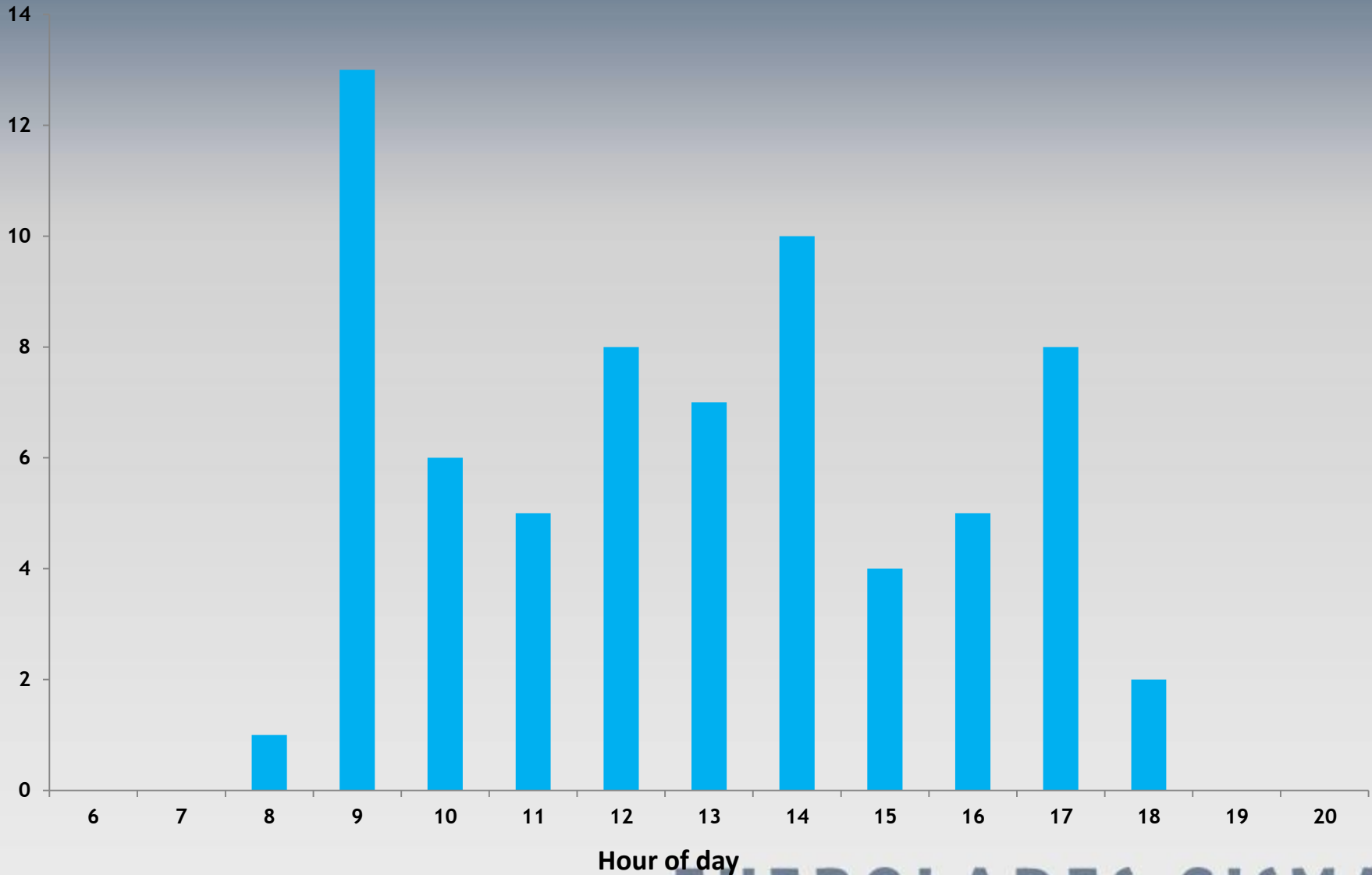
# Trap Locations - UF

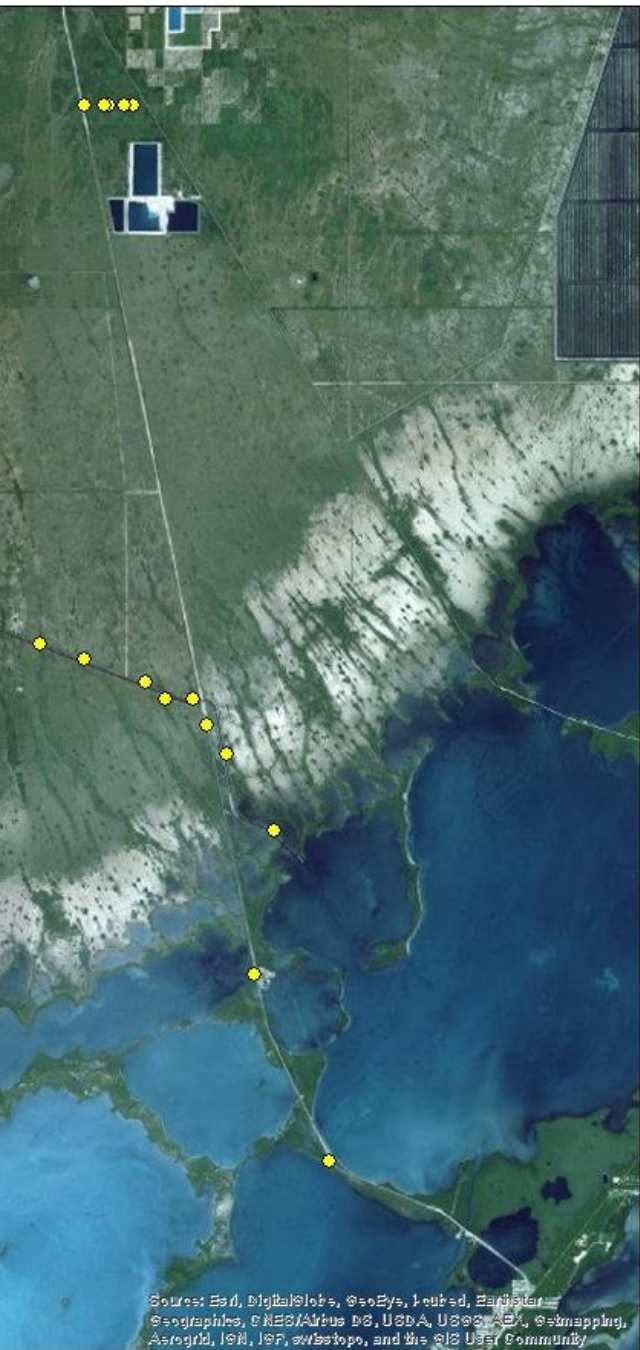


# Trap Locations - UF



# Daily tegu occurrence by hour





Tegu ID	Sex	Start Date	Number of Locations	SVL (cm)	Total Length (cm)	Mass (kg)	Home Range Area (m2)	
							95% MCP	50% MCP
TuMe 761	M	16-Feb-15	11	33.2	94.3	1.8		
TuMe 769	F	18-Mar-15	43	35.9	94.6	1.55	143422.111818	22165.022287
TuMe 774	M	18-Mar-15	45	33.5	91.2	1.09	2208647.37017	428352.73689
TuMe 797	F	14-Apr-15	32	34.1	94.8	1.62	69774.738248	19485.365588
TuMe 838	F	6-Apr-15	26	38.3	75.6	1.8	67385.877923	11836.808916
TuMe 858	F	19-May-2015	19	39.5	101.9	1.716	6428.944736	753.817885
TuMe 859	F	19-May-2015	19	37.4	97.1	1.516	10091.405425	885.031925
TuMe 867	F	29-Apr-15	27	29.7	85.1	0.8	31210.748381	7653.325123

# Results

## 2014 monthly tegu CPUE

Tegus/Trap Day

