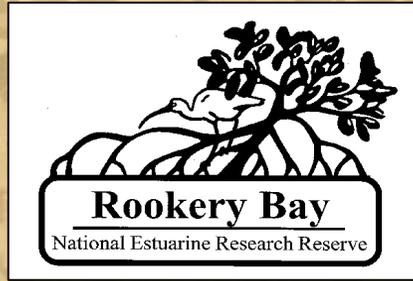


# Spatial Ecology and General Life History of the Eastern Indigo Snake (*Drymarchon couperi*) in Southwest Florida

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# Species Overview

## Lacking information in Southwest Florida

- Spatial Movement?
- Habitat & Refugia Usage?
- Climate Differences?
- Behavioral Differences?
- Exotic Interactions

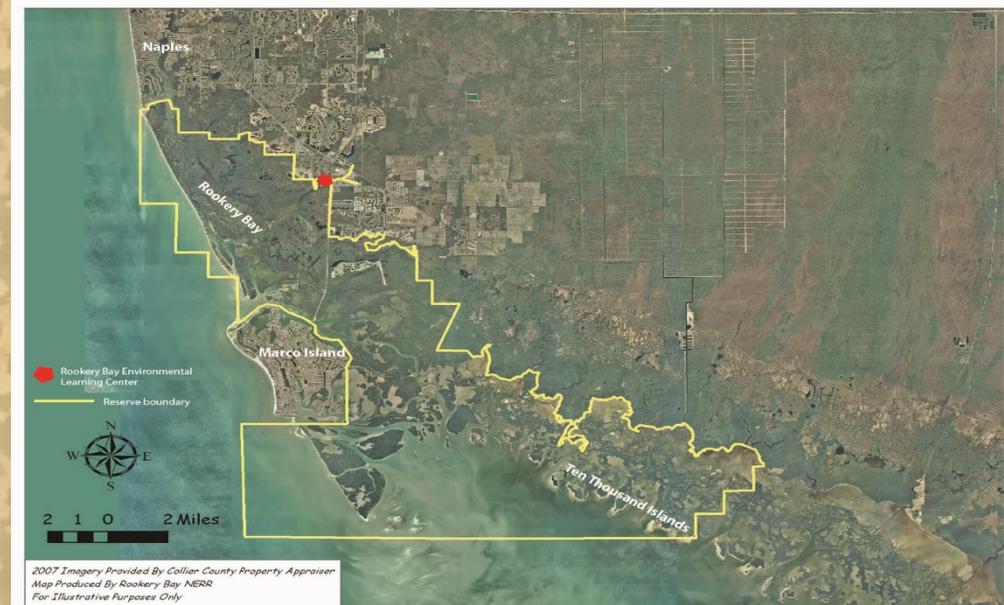
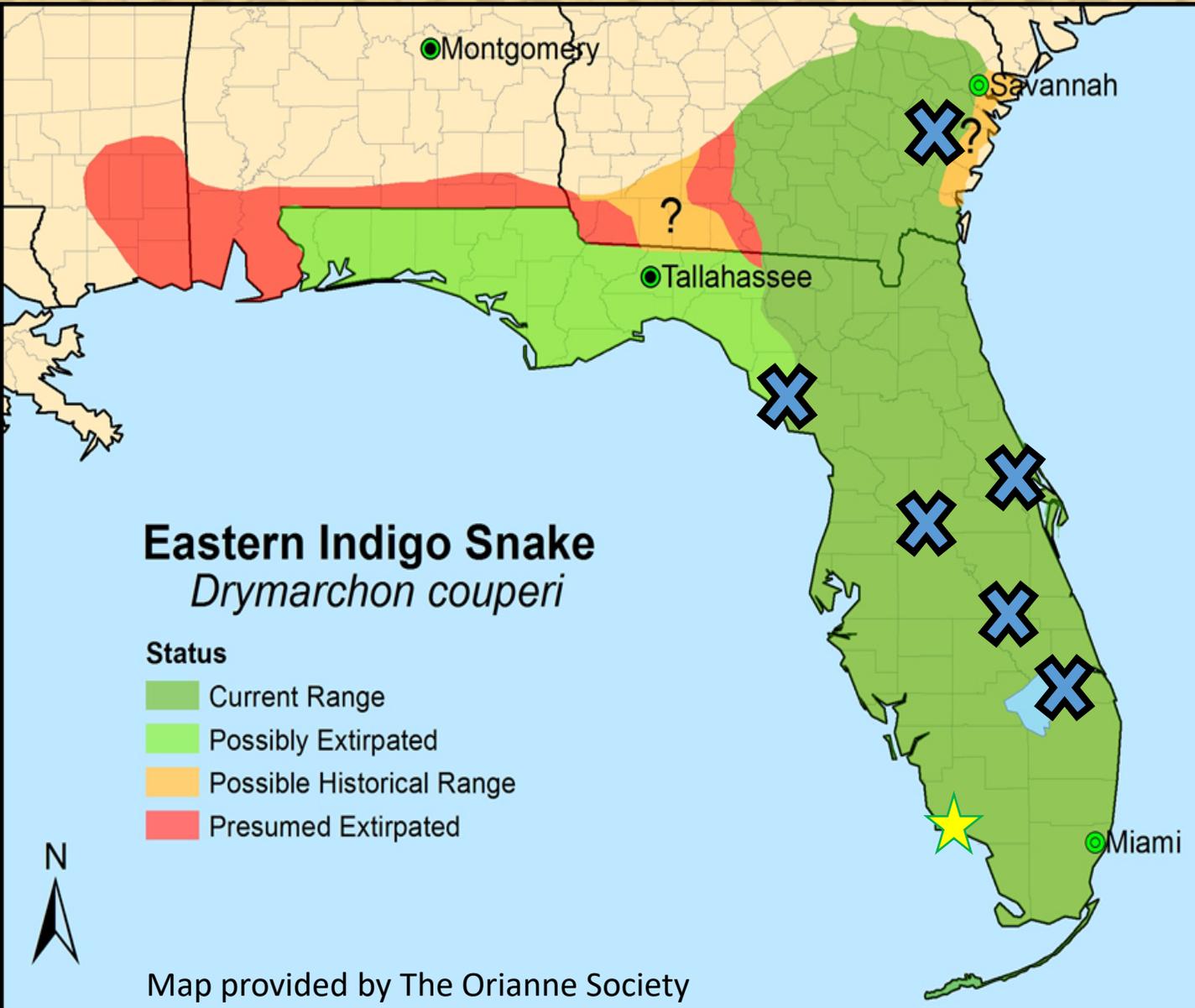
### Eastern Indigo Snake *Drymarchon couperi*

#### Status

- Current Range
- Possibly Extirpated
- Possible Historical Range
- Presumed Extirpated



Map provided by The Oriante Society



# Methodology



# Results

Study Location	Average Female Home Range Size (ha)	Female Sample Size	Average Male Home Range Size (ha)	Male Sample Size	Tracking Duration (days)	Study Authors
Southeastern Georgia (Fort Stewart Military Reservation)	126	14	538	24	89-711	Hyslop 2007
Levy County, FL	---	---	141	4	Unknown	Moler 1985
Brevard County, FL	41	18	118	31	Unknown	Bolt 1996
Highlands County, FL	18.6	7	74.3	12	8-197	Layne & Steiner 1996
Brevard, Highlands, and Polk Counties, FL	75.6	21	201.7	23	224-1113	Breininger et al. 2011
Martin County, FL	9.7	1	42.8	4	83-365	Jackson 2013
Collier County, FL	113.3	1	220.8	3	334-544	Metcalf 2017

# Results

## Habitat Preferences

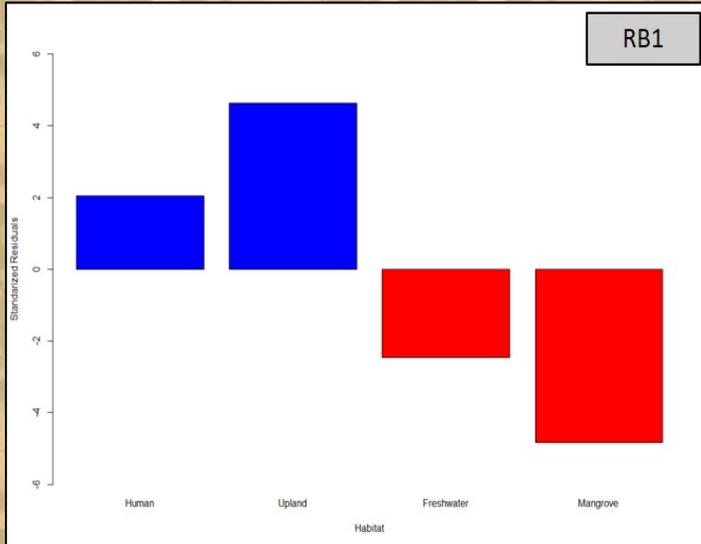
## Refugia Use



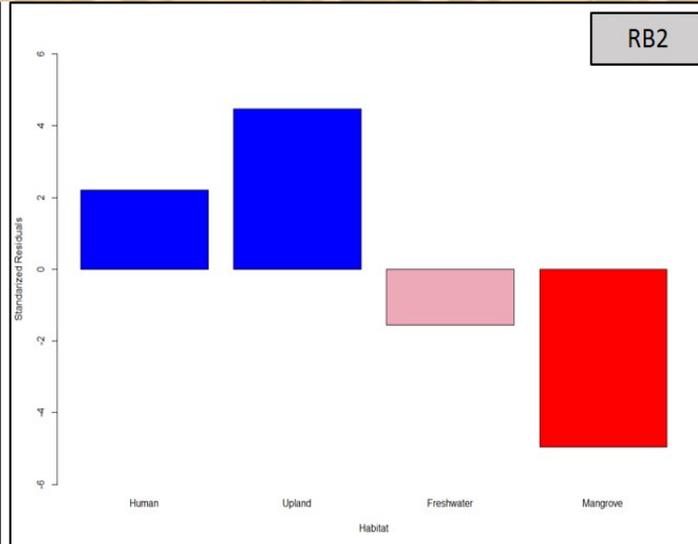
## Road Proximity



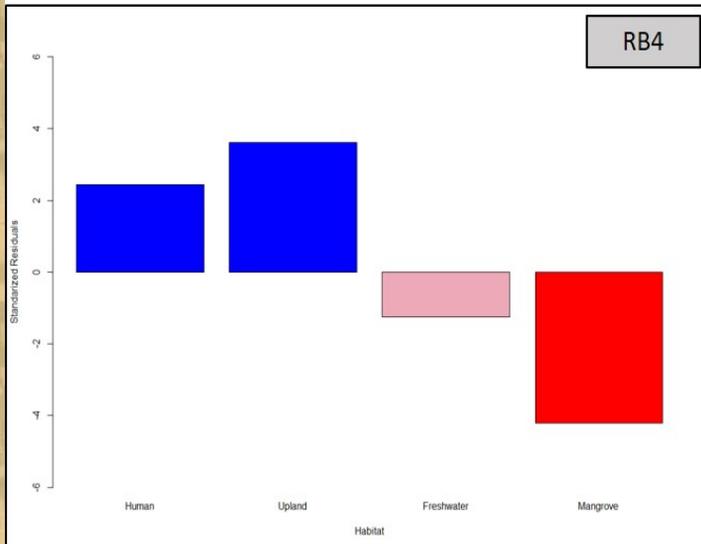
RB1



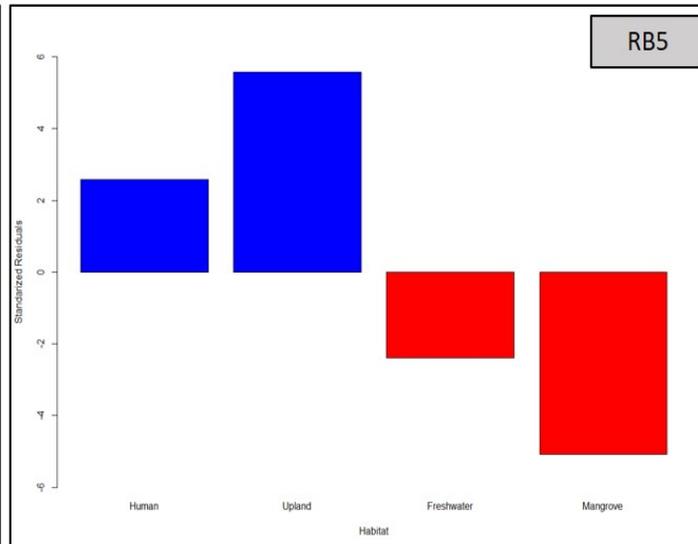
RB2



RB4



RB5



# Discussion

## Similarities

- Home ranges similar to northern extent
  - Hyslop 2007
- Prefer drier areas adjacent to freshwater
- Prefer upland areas (avoid mangroves)
- Utilized tortoise burrows most often but also multiple burrow types.

## Differences

- Activity is not limited by temp/season.
- Road Proximity
- Nearest study in Martin County showed smallest home ranges.
  - Jackson 2013
- Burrow usage



# Management Implications

- Management should focus on localized populations due to varying habitat and spatial utilization.
- In southwest Florida, surveys should focus near road/fire breaks/forest edges.
- Upland areas near tortoise burrows and canaled ledges
- Include midday hours for searching during breeding seasons coupled with burrow camming
- Focusing on interactions with exotics/adjustments to sea level rise/climate change





# Questions

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