EVALUATING EFFECTIVENESS OF TARGETED OUTREACH FOR INVASIVE REPTILES IN SOUTH FLORIDA

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Introduction

- The four largest lizard species currently breeding in Florida are invasive
- Nile monitors *(Varanus niloticus)* and Argentine black and white tegus *(Salvator merianae)* have broad diets, posing significant risks to many native wildlife
- Difficult to detect and largely localized to urban, suburban, and agricultural areas
- Impossible to survey everywhere, so we need help!

Nile monitor *(Varanus niloticus)* hatchling from the C-51 basin, Palm Beach County, Florida.

Objectives

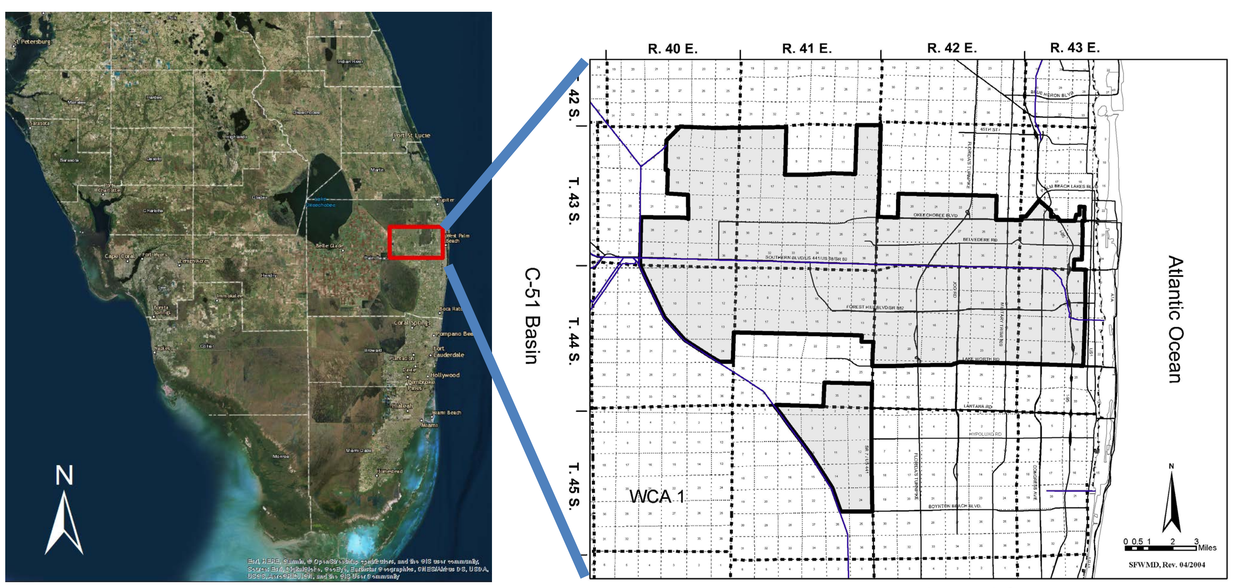
- Create widespread observational network as part of interagency effort to detect and remove Nile monitors and Argentine black and white tegus
- Deliver variety of targeted outreach with specific message for a specific audience (i.e. door hangers, flyers, social media, presentations)
- Evaluate effectiveness of each method for replication and enhancement
- Help fill in knowledge gaps about distribution, abundance, occupancy, nesting, and habitat use of large invasive lizards to improve detection and removal

Argentine black and white tegu *(Salvator merianae)* from Miami-Dade County.

Methods and Study Area

Nile monitor outreach

- April 2018 – April 2019 deliver targeted outreach to neighborhoods, businesses, parks, workers, and natural areas in and around C-51 Basin in Palm Beach County.



Adapted from SFWMD, 2004.

- Select areas by UF survey routes, suitable habitat, previous reports, or potential threat to natural resources (high-risk areas = close to natural area, i.e. Lox NWR)
- Track in-person interactions from targeted outreach (Table 1.; Figures 1 & 2)
- When report is received, document which media type or method of communication

Argentine black & white tegu outreach

- Rapidly respond to reports on Early Detection & Distribution Mapping System
- Primarily target rural or agricultural areas of Miami-Dade County

Results

Method	Total effort	In-person contacts
Door hanger (Nile monitors)	2,042	144
Door hanger (Tegus)	274	9
Flyer (Nile monitors)	91	17
Flyer (Tegus)	25	2
Presentation	236	236

Table 1. Total effort (# materials distributed) and contacts made from April 2018 to April 2019.

- **2 verified Nile monitor reports**
- **8 verified Argentine black and white tegu reports**

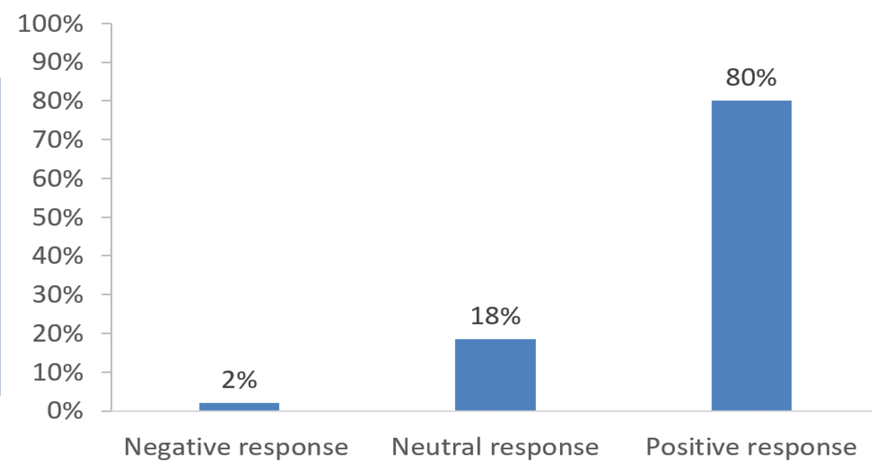


Figure 1. Overall response from in-person contacts during Nile monitor targeted outreach from April 2018-2019 (N=161).

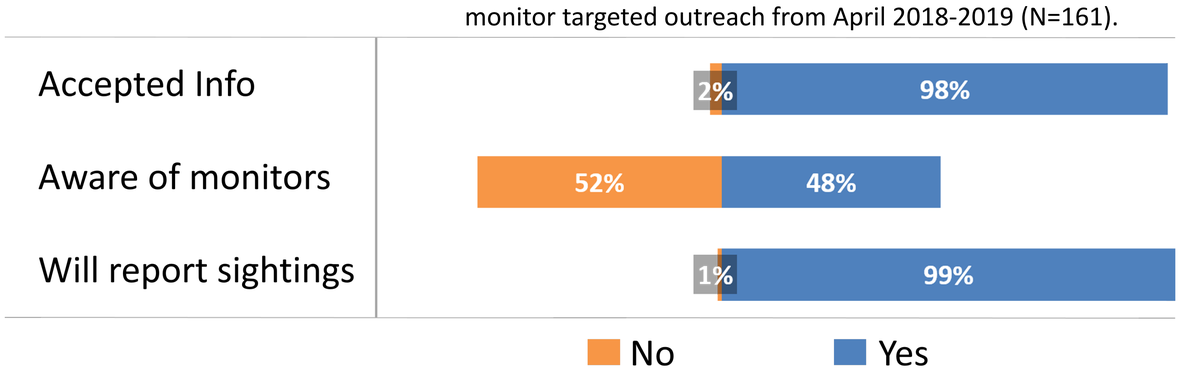
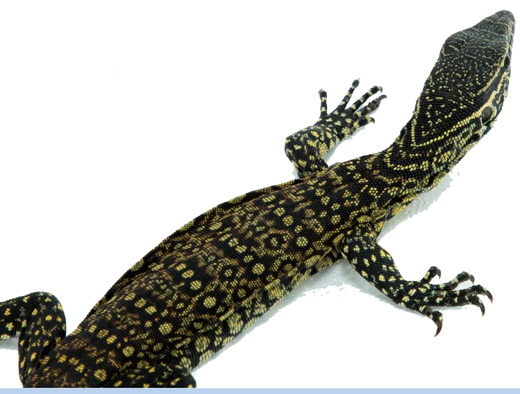


Figure 2. Overall awareness/willingness to report from Nile monitor outreach in-person contacts (N=161).

Conclusions and Effectiveness



- Several residents have seen Nile monitors or taken pictures, but did not know how to report
- One community shared Nile monitor door hanger through “Next Door” phone app
- Discovered potential new “hot spot” for tegus in Redlands – further investigating property
- Targeted outreach starts with focused audience, but word spreads from there (i.e. websites, community boards, social media, etc.)
- Challenging to quantify effectiveness – often leaving it up to the individual to say something

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