

# **Decoding the Motivations of Fishers Considering Participation in Citizen Science Projects: Preliminary & Partial Findings**

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Presentation to the Citizen Science Operations Committee of the SAFMC

May 22, 2024

# Proposed Project

## **SAFMC Request:**

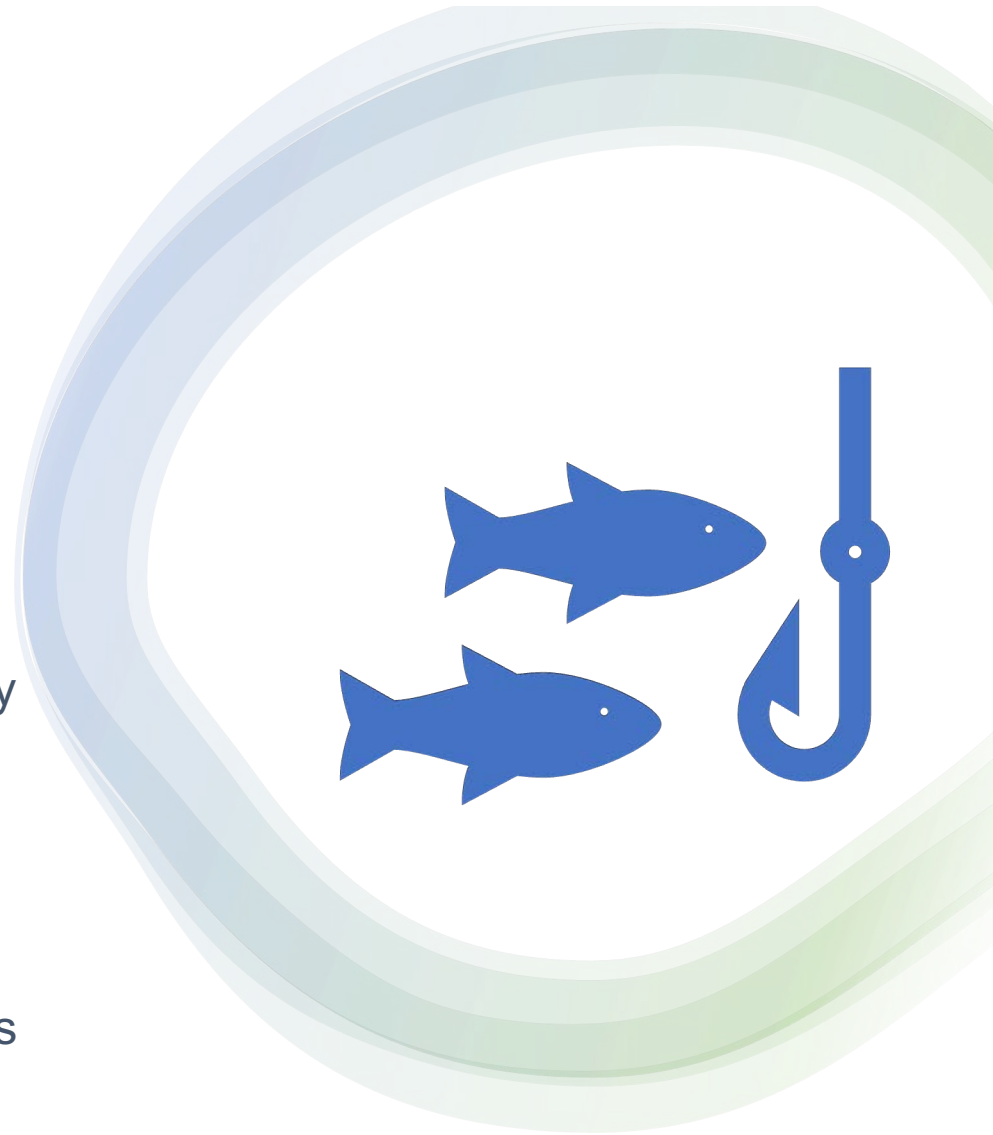
- “study and document the interests, motivations, and concerns of fishermen who might participate in the SAFMC’s growing Citizen Science Program

## **Proposed Approach:**

- Qualitative interview-based research strategy
- Tailored sampling & recruitment strategy → representative data gathering

## **Result:**

- nuanced analysis of fishers’ reasoning surrounding their decision-making around participation in SAFMC citizen science efforts



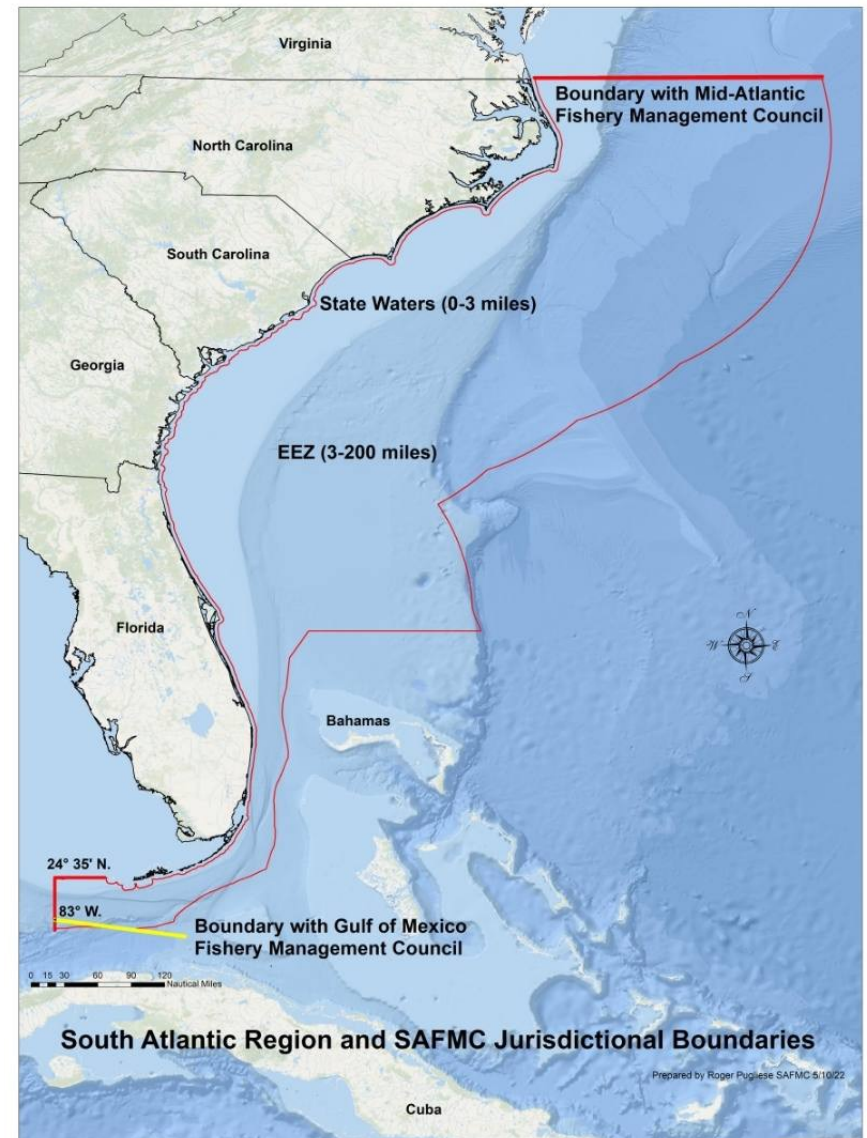
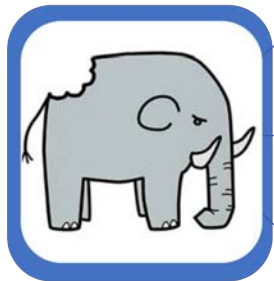


## Background Literature

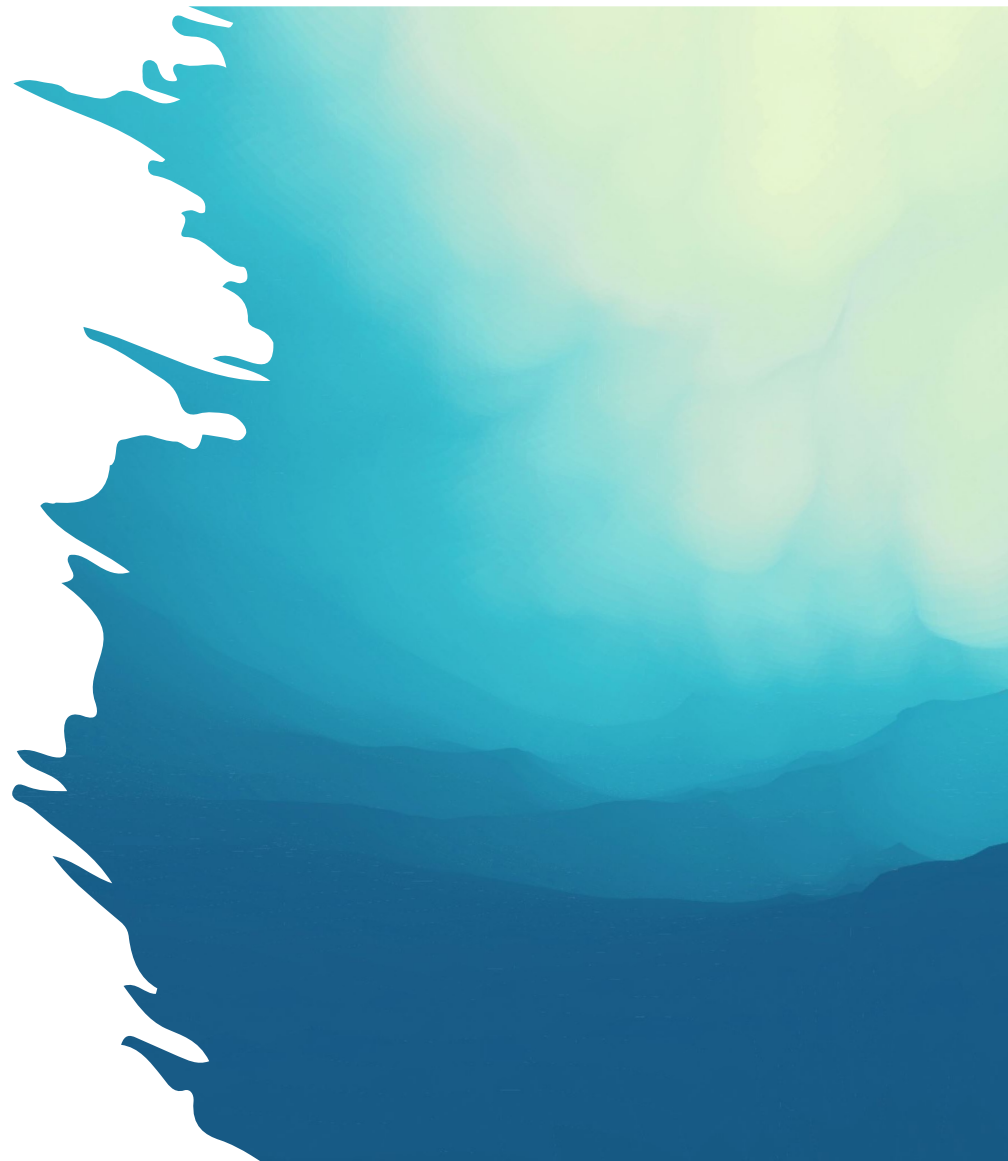
- Role of trust in fisheries management
- Relationship between trust in management and impact on citizen science efforts is limited (Bonney et al 2021)
- Within fisheries management
  - Industry members with moderate levels of trust have highest levels participation in fisheries management (Yandle et al. 2011)
  - Institutional trust not monolithic
    - Varies by institution (Yandle et al, 2011, Grey et al., 2012)
    - Varies institutional scale (Yandle, Tookes, and Grace-McCaskey 2020).
- Environmental Justice (Stella Capek 1993)
- Critical Environmental Justice (David Naguib Pellow 2018)
- Moral injury (Litz et al 1993)

# Specialized Sampling Frame

- 4 states
- 3 sectors
- 19 thousand commercial permits (NOAA permit database)
- Untracked recreational anglers



# Recreational Anglers





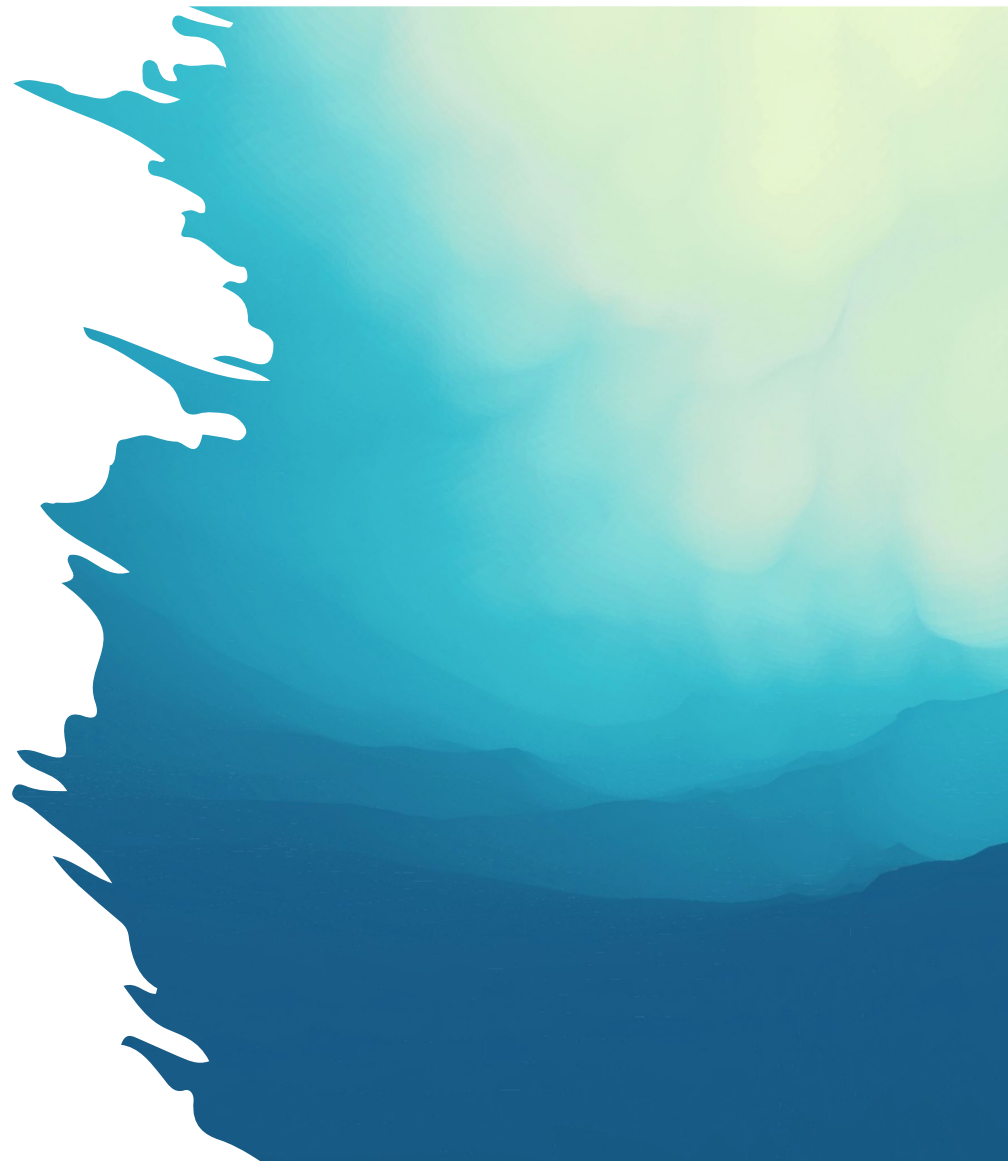
# Recruitment

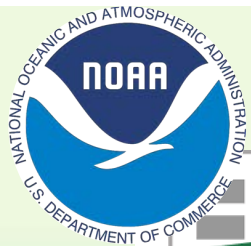


- Focus on resident anglers with “demonstrated sustained interest”
- Define as being a member of an organization focused on recreational fishing
  - E.g. The International Gamefish Association, Coastal Conservation Association, saltwater angler clubs
- Added Facebook groups & snowball sampling
- Email blurb, recruitment image, google form



# Commercial & For-Hire Sectors

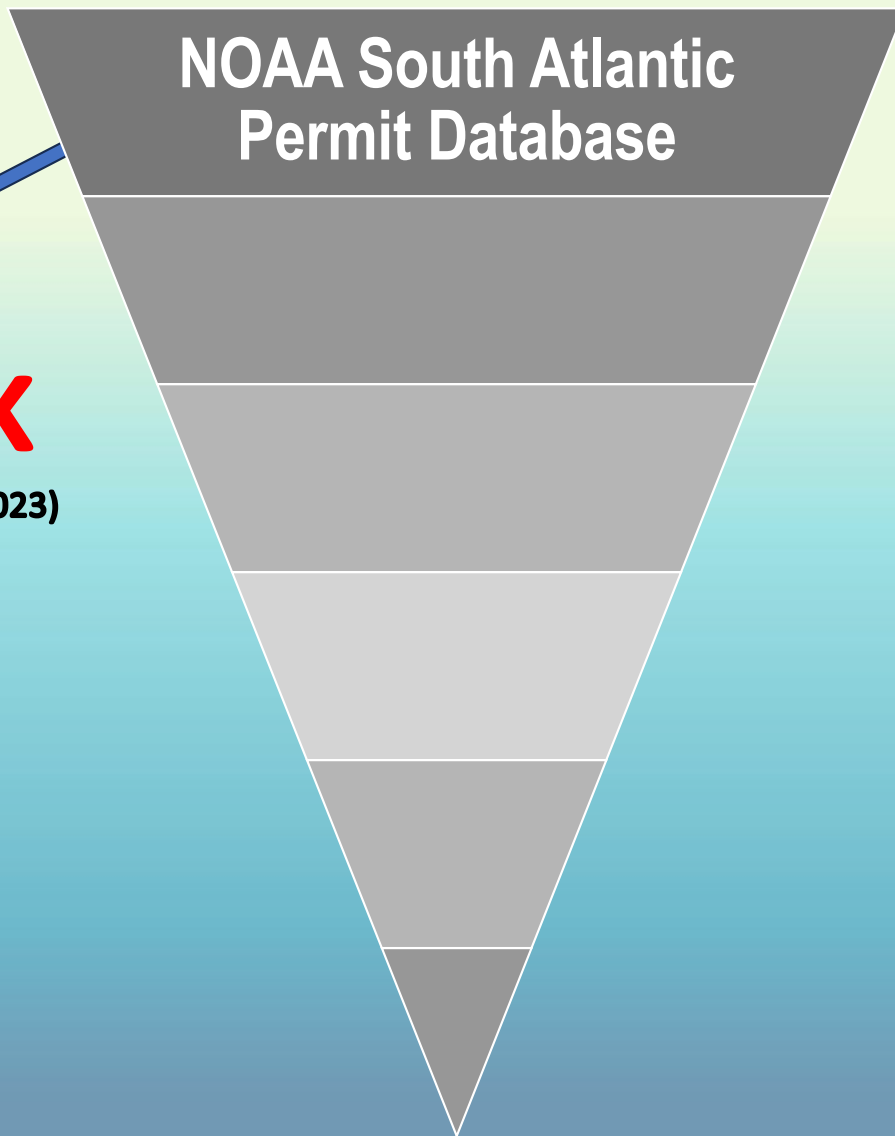




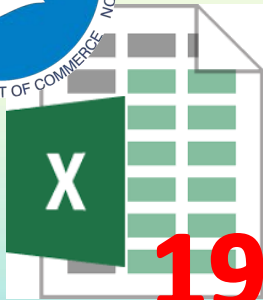
**19K**

**(January 2023)**

# NOAA South Atlantic Permit Database





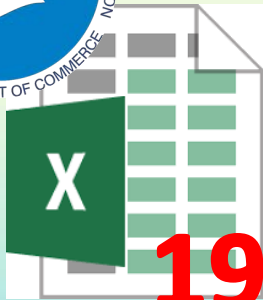


**19K**

**NOAA South Atlantic  
Permit Database**

**Non-Atlantic state,  
No addresses**





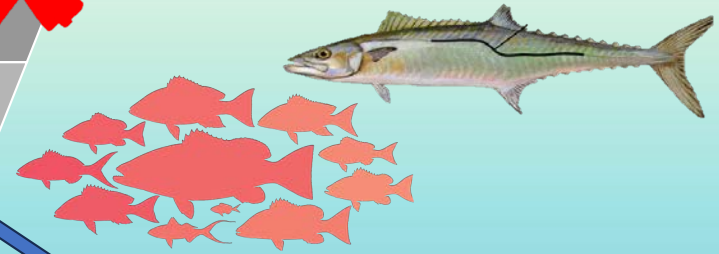
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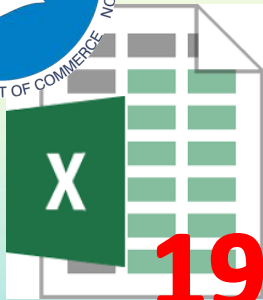
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**Snapper/Grouper  
VS.  
King Mackerel**



	Snapper/ Groupers	Mackerels
Commercial Fishers	536	1237
For-Hire Fishers	1664	1635

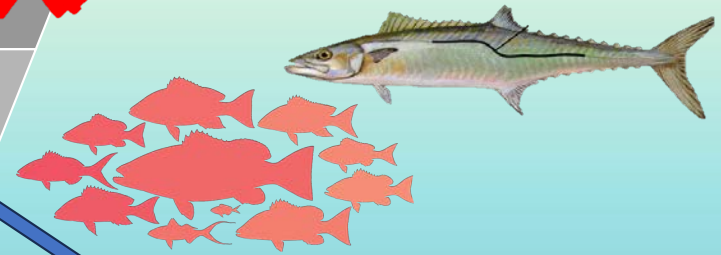


NOAA South Atlantic Permit Database

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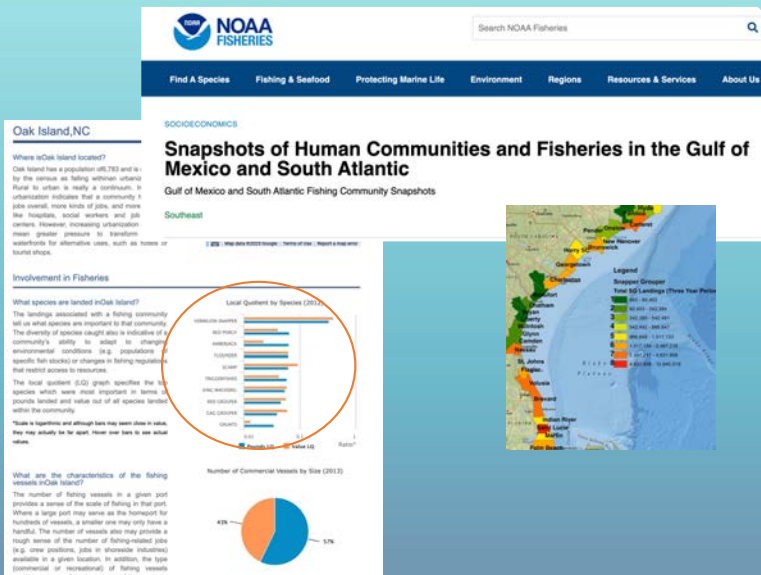
Snapper/Grouper VS.  
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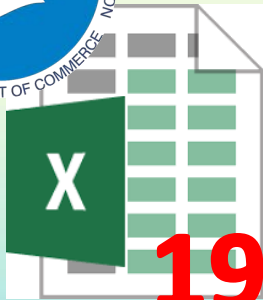


Fishing  
Communities by  
Landings

Geographic  
Segments

	Snapper/ Groupers	Mackerels
Commercial Fishers	536	1237
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NOAA South Atlantic Permit Database

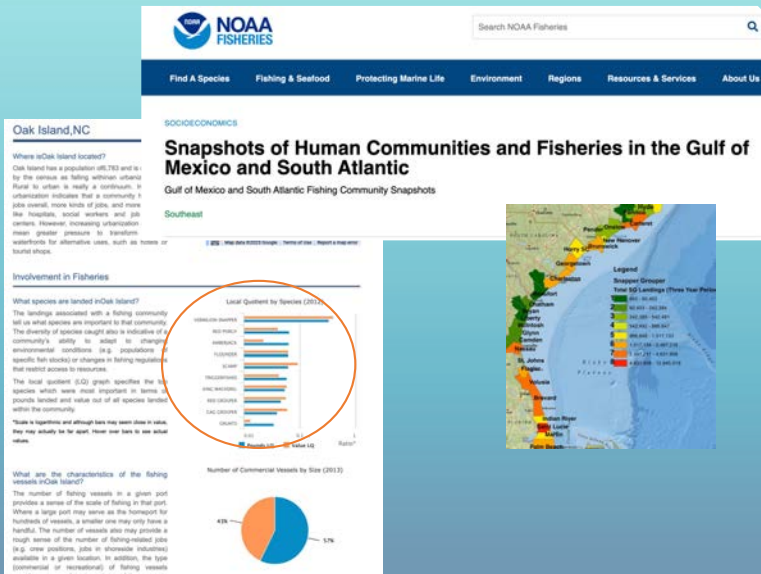
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**Target  
Study  
Population**

	Snapper/ Groupers	Mackerels
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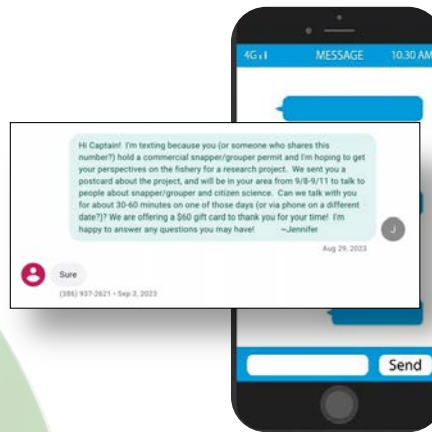


# Recruitment & Methods



# Targeted Recruitment

<i>Geographic Segment &amp; Fishery Sector</i>	Commercial	Charter	Angler
<i>Segment 1</i>	3-5	3-5	3-5
<i>Segment 2</i>	3-5	3-5	3-5
<i>Segment 3</i>	3-5	3-5	3-5
<i>Segment 4</i>	3-5	3-5	3-5
<b>Target Study Sample</b>	12-20	12-20	12-20



## COMMERCIAL & FOR-HIRE

- Mailed postcards
- Phone number searches
- No response after 1-2 postcards plus 2 texts= removal, move to next name

## RECREATIONAL ANGLERS

- Emails/Messages to Fishing Organizations & Online Groups

# Methods & Fieldwork

- Specialized research instruments
  - Drawing on Byrd & Bonney
  - Based in MARFIN & NOAA SK projects
- Semi-structured interviews
  - Phone / Zoom
  - In-Person visits (one per segment)
- All 3 sectors across 4 states
- Interviews between July 2023 and February 2024 (N=41)

Geographic Segment & Fishery Sector	Commercial	For-Hire/Charter	Angler
<i>Segment 1</i> (Keys-South Florida)	1	3	5
<i>Segment 2</i> (Space Coast)	3	4	4
<i>Segment 3</i> (FloriGa)	5	5	1
<i>Segment 4</i> (Carolinas)	5	3	2
<b>Total Sample Size</b>	<b>N=14</b>	<b>N=15</b>	<b>N=12</b>





# Preliminary Results

# Preliminary Findings

Deep-seated concerns about the management process and how data is used

“the problem...is once they get a law on the books, it takes 10 years to get it off the books...[in] 10 years I'm done. I'm 72 ...I'll never see another day of good fishing out here as long as I live.”

“I'm sure they'd welcome me. They just wouldn't listen to anything I say...I think sometimes they try to do the right thing. And I agree with a lot of what they do, but some of the things? They just missed the boat.”

“We all know that once the government takes something it rarely ever gives it back. 37 years on goliath grouper and yet still counting.”

“You know the biggest problem I think...commercial fishermen have working with scientists is the fear that they're going to use the info against them. I think that's 99% of all the problems fishermen and scientists have.”

# Preliminary Findings: Distrust of Scientific Methods

## Distrust of science & scientists

“everybody’s got an agenda, in my opinion. So they are, they’re gonna get the scientists that tell them what they want to hear.”

“How can you go out in the middle of the ocean, choose a mile square out in 600- 700ft water where nobody can go look, and tell me how many fish are in that mile?! I mean, if you *can* do it...But I think a lot of their science is garbage, because I don't think it's physically possible for them to know everything they claim they know.”

“I know there's a lot of fudging, and multiplying--you can't just multiply you got to have raw data and go from it. You can't just multiply the data that you have that makes it incorrect...and I think that's what they do...one of my customers was in the red snapper cobia program ...he was a researcher. He was the guy that went out there and brought in the numbers that they use and multiplied to come up with red snapper population.”



“Citizens are actually there...on water every day doing things...a scientist goes on the water for a week, two weeks, a month, out of a year. So he really doesn't know what he's looking at.”

“All monetary. Really it is... There's a lot of people who'll do it voluntarily. But they're gonna answer questions and do things that they think won't hurt them. If they think it's not gonna benefit them personally, you're not going to get an honest response from most people.”

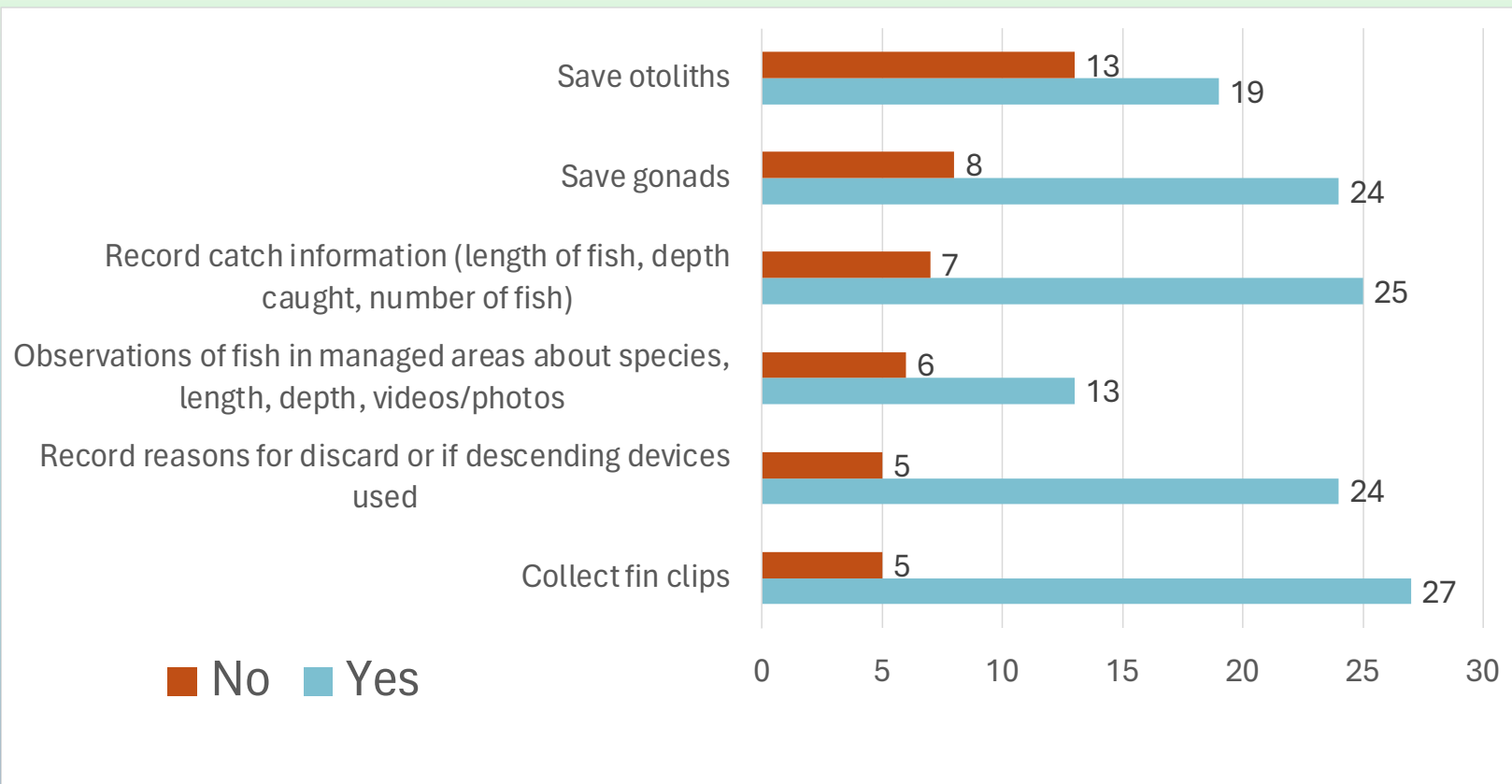
## Preliminary Findings: Opportunities for Citizen Science

“I think there's probably a fair amount of guys like me that are willing to help with the science and there's probably just as many that are you know want nothing to do with any outsiders messing with their stuff but you know money talks ...

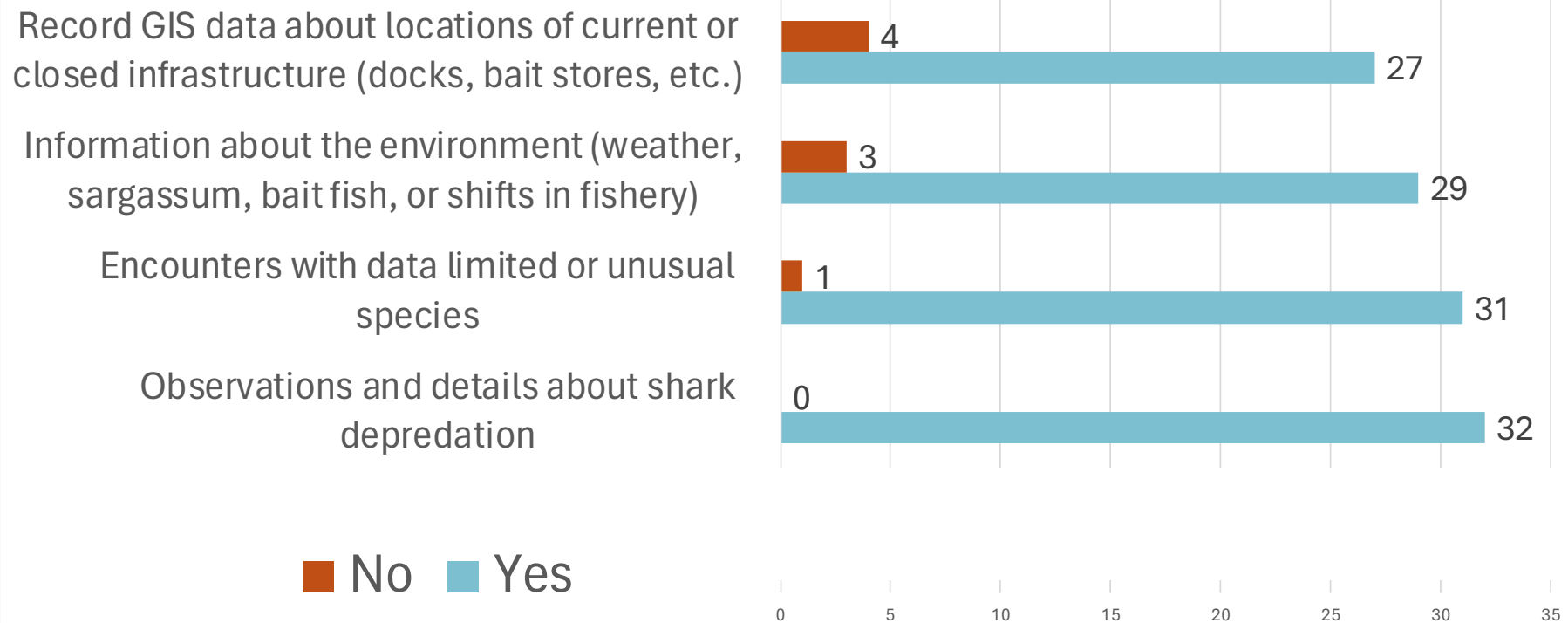
“I think *citizen* science would be better than *scientist* science.”



***If* you were asked to participate in a citizen science project, would you be willing to voluntarily provide *this* information?”**



***If you were asked to participate in a citizen science project, would you be willing to voluntarily provide *this* information?***



# Preliminary Findings: Opportunities for Citizen Science

Process is key

"Time is money"  
"Money talks"

**Trusted Partners**  
"neutral university vs. the  
federal level or NOAA"

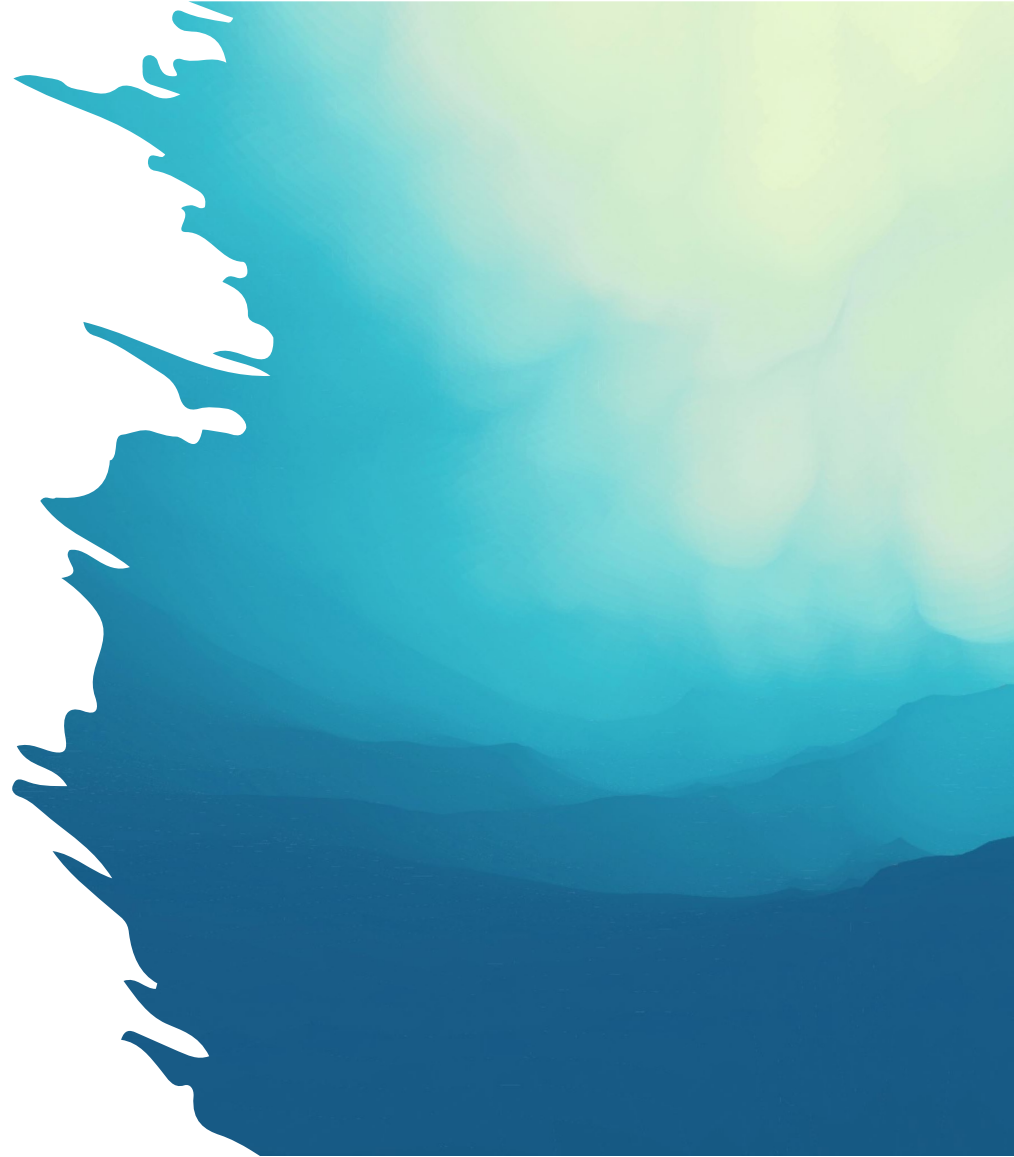
## **Convenience**

"If it's easy"  
"So simple a baby could do it"  
For a "reasonable amount" of the  
catch

## **Knowledge**

Need "education" on methods  
How to transfer the 'parts'

# Conclusions



# Where do we go from here?



Simple



Non-duplicative



Relevant & needed



Applicable

# Questions & Comments?

## Special Thanks:

Julia Byrd, Christina Weigand, South Atlantic Fishery Management Council

Research Team: Kristin Meeuwen, Megan Bull, Blake Pavri

Commercial, for-hire, & recreational fishers across the entire South Atlantic region

