

# **Decoding the Motivations of Fishers Considering Participation in Citizen Science Projects**

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Pre-Research Presentation to the SEP

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# 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

- Understudied: 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).

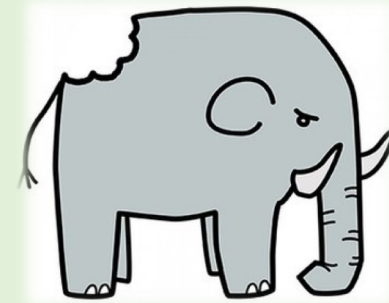
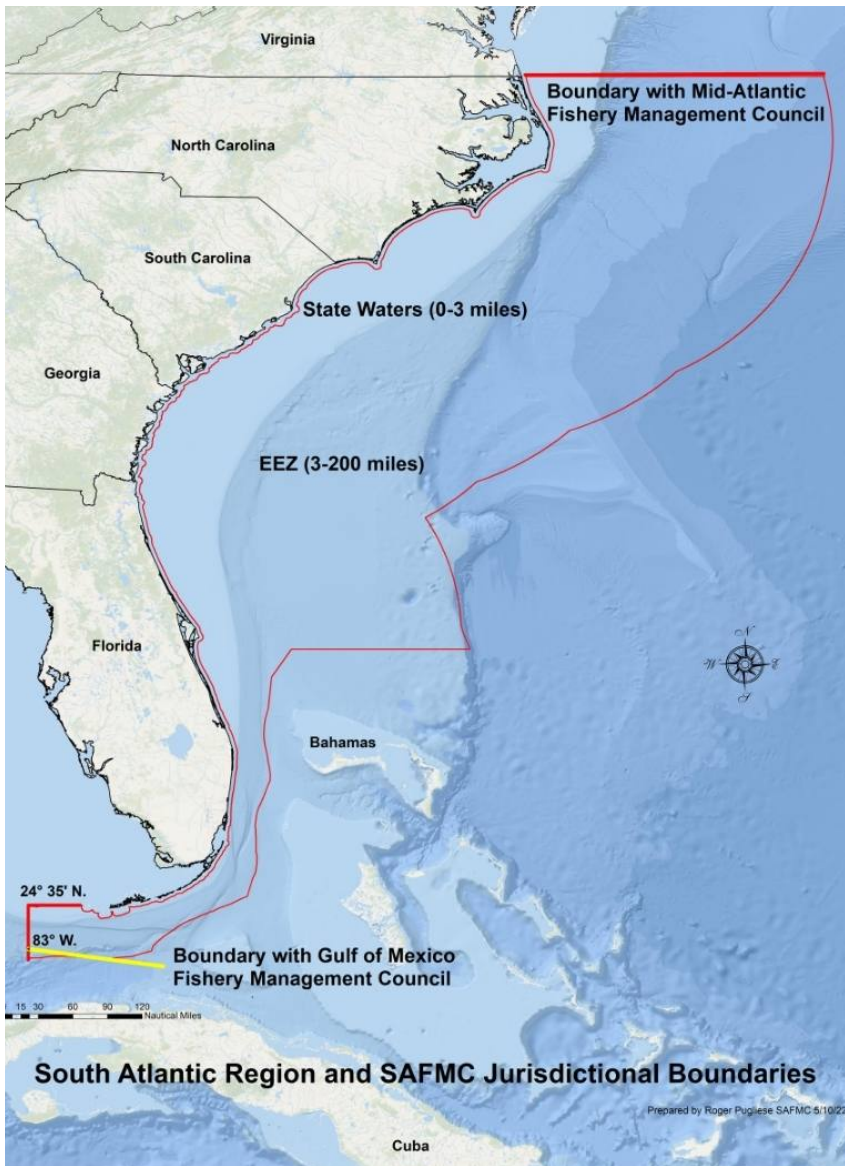
# Specialized Sampling Frame

4 states

3 sectors

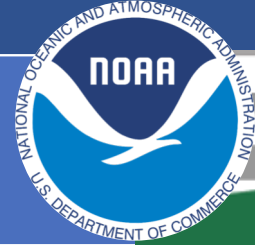
19 thousand commercial permits

Untracked recreational anglers



# **Commercial & For-Hire Sectors**

# NOAA South Atlantic Permit Database



**19K**





The diagram is a funnel shape composed of several horizontal bands of decreasing width from top to bottom. The top band is dark blue and contains the text 'NOAA South Atlantic Permit Database'. The second band is a medium blue and contains the text 'Non-Atlantic, No addresses, Companies' with a large red 'X' to its left. The subsequent four bands are lighter shades of blue, and the bottom-most band is the lightest shade. The funnel is set against a light green background that is darker at the top and bottom edges.

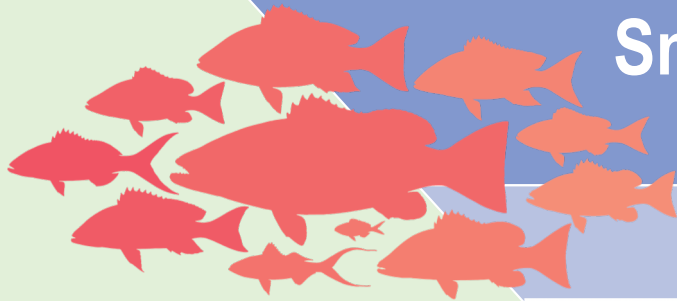
**NOAA South Atlantic Permit Database**

**Non-Atlantic, No addresses, Companies**

# NOAA South Atlantic Permit Database

Non-Atlantic, No addresses, Companies

## Snapper/Grouper VS. King Mackerel



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

# NOAA South Atlantic Permit Database

Non-Atlantic, No addresses, Companies

Snapper/Grouper VS King Mackerel

Fishing Communities  
by Landings



[Find A Species](#) [Fishing & Seafood](#) [Protecting Marine Life](#) [Environment](#) [Regions](#) [Resources & Services](#) [About Us](#)

## SOCIOECONOMICS

### Snapshots of Human Communities and Fisheries in the Gulf of Mexico and South Atlantic

Gulf of Mexico and South Atlantic Fishing Community Snapshots

[Southeast](#)

#### Oak Island, NC

##### Where is Oak Island located?

Oak Island has a population of 6,783 and is classified by the census as falling within an urbanized area. Rural to urban is really a continuum. Increasing urbanization indicates that a community has more jobs overall, more kinds of jobs, and more services like hospitals, social workers and job training centers. However, increasing urbanization can also mean greater pressure to transform working waterfronts for alternative uses, such as hotels or tourist shops.



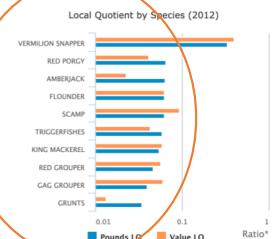
#### Involvement in Fisheries

##### What species are landed in Oak Island?

The landings associated with a fishing community tell us what species are important to that community. The diversity of species caught also is indicative of a community's ability to adapt to changing environmental conditions (e.g. populations of specific fish stocks) or changes in fishing regulations that restrict access to resources.

The local quotient (LQ) graph specifies the top species which were most important in terms of pounds landed and value out of all species landed within the community.

\*Scale is logarithmic and although bars may seem close in value, they may actually be far apart. Hover over bars to see actual values.



##### What are the characteristics of the fishing vessels in Oak Island?

The number of fishing vessels in a given port provides a sense of the scale of fishing in that port. Where a large port may serve as the homeport for hundreds of vessels, a smaller one may only have a handful. The number of vessels also may provide a rough sense of the number of fishing-related jobs (e.g. crew positions, jobs in shoreside industries) available in a given location. In addition, the type (commercial or recreational) of fishing vessels provides a sense of the importance of that sector to

Number of Commercial Vessels by Size (2013)



# NOAA South Atlantic Permit Database

Non-Atlantic, No addresses, Companies

Snapper/Grouper VS King Mackerel

Fishing Communities  
Landings

Geographic  
Segments



**NOAA South Atlantic Permit Database**

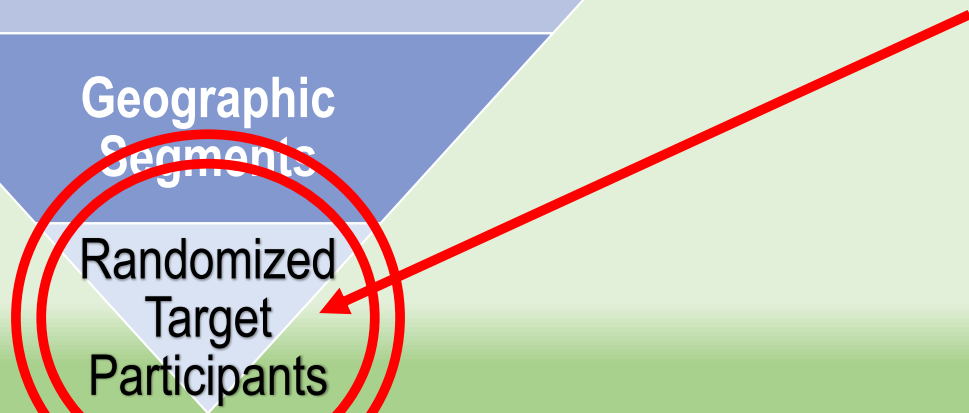
**Non-Atlantic, No addresses, Companies**

**Snapper/Grouper VS King Mackerel**

**Fishing Communities  
Landings**

**Geographic  
Segments**

**Randomized  
Target  
Participants**



# **Recreational Anglers**

- Focus on resident anglers with “demonstrated sustained interest”
- Define as being a member of an organization focused on recreational fishing
  - International Gamefish Association
  - Coastal Conservation Association
  - Other identified saltwater angler clubs



# Targeted Recruitment

## COMMERCIAL & FOR-HIRE

- Mailed postcards
- Phone number searches

No response after 2 postcards plus phone call= removal, move to next name

## RECREATIONAL ANGLERS

- Fishing Organizations
  - Direct emails; announcement in newsletters or on social media
  - Organization suggestions

<i>Geographic Segment &amp; Fishery Sector</i>	<b>Commercial</b>	<b>Charter</b>	<b>Angler</b>
<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



# Methodology

- Specialized research instruments
  - Drawing on Byrd & Bonney
  - Based in MARFIN and NOAA SK projects
- Semi-structured interviews
  - Phone
  - Zoom
  - In-Person visits (one per segment)
- Grounded theory
  - Inductive data analysis

# Discussion Questions

- Regarding the recreational sector
  - Suggestions for additional strategies for recruiting in this sector?
  - Suggestions for contacts in fishing clubs or other organizations?
- We plan for the interview guides to address themes of:
  - attitudes to and willingness to work with management
  - fishery conditions
  - trust & well-being (social and economic)
  - social networks
- If time allows, are there any additional themes you would recommend we address?