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Office of Science
and Technology

Marine
Recreational
Information
Program

NOAA Fisheries' Fishing Effort Survey Pilot Study and Next Steps

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FES Pilot Studies Report

Report includes two separate studies to evaluate potential sources of bias in Fishing Effort Survey:

- One-month fishing activity questions (one-month waves)
- Question order changes to the 2-month and 12-month fishing activity questions



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One-Month Waves Key Points

- Compared FES design to two options for one-month fishing activity questions
 - FES: asks about previous two-months
 - Experiment 1: asked about previous single month
 - Experiment 2: asked about previous two months individually
- Findings suggested the two-month reference period of the FES wasn't a likely source of bias.
 - Asking about previous two-months individually seemed to mitigate potential recall bias in one-month estimates.
- **Limitations:** Conducted in four states over six months with smaller sample sizes compared to the FES

Image: C. Baez

Question Order Change Key Points

- Revising order of questions in pilot resulted in **fewer observed reporting errors/illogical responses**.
- Resulting **effort estimates lower for shore and private boat** than estimates produced from current design.
- **Limitations:** Conducted over 6 months, smaller sample size than full FES administration, **results varied by state and fishing mode.**



Image: Tim Donovan/FL FWC



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Switching 2 & 12-month Fishing Activity Questions

Experimental Questionnaire 1:

Shore:Private boat/
12 month:2 month

Experimental Questionnaire 2:

Private boat:Shore/
2 month:12 month

Experimental Questionnaire 3:

Private boat:Shore/
12 month:2 month

FES Question Order:

Shore:Private boat/
2 months:12 months

15 How many days did you go recreational saltwater fishing from the **SHORE** in **North Carolina**?

The shore includes docks, bridges, causeways, beaches, banks, or any other shore-based place or area. Do not include freshwater fishing.

Did not recreational saltwater fish from shore in last 12 months → **Go to question 16**

Number of days saltwater shore fishing in **January and February of 2022**

Number of days saltwater shore fishing in **last 12 months**, including January and February

16 How many days did you go recreational saltwater fishing from a private or rental **BOAT** that returned to shore in **North Carolina**?

Do not include freshwater trips or trips where a paid captain or crew helped locate and catch fish.

Did not recreational saltwater fish from private boat in last 12 months

Number of days saltwater boat fishing in **January and February of 2022**

Number of days saltwater boat fishing in **last 12 months**, including January and February

If you have more people in your household, continue to Household Member 2. If you have answered for all people in your household, please return your survey.

Follow-up Study & Next Steps

- Revised design administered concurrently with current FES over full course of 2024 (**larger sample size over longer duration**).
- Received funding at end of July 2023 to conduct in 2024.
- New study design is informed by results of two previous pilot studies (one month waves, question order) and additional cognitive interviewing.
 - Cognitive interviewing with random selection of anglers to evaluate thought process behind how they answer questions.
- Revised design includes **both questionnaire changes and increasing the administration of the survey** from every two months to monthly.
 - Study will determine **combined effects**, which allows for a more efficient transition/calibration process.
 - **Monthly sampling** is a priority of our partners and will produce **more frequent estimates and a shorter respondent recall** period that may also improve reporting error.



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Follow-up Study & Next Steps

- Existing FES calibration **will be updated** to account for revised design
 - Calibration update work has started and will continue as needed into 2024 and 2025 pending results from the 2024 follow-up study
- Full implementation of an improved FES design would occur **no earlier than 2026** and would be dependent on:
 - Successful completion of the follow-up study and calibration updates
 - Favorable technical peer review and updated FES Transition Plan developed in coordination with partners on the MRIP Transition Team
 - Fully calibrated historic time series of catch and effort estimates



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Assessment and Management Implications

- **Full potential impacts unknown** until we've completed follow-up study.
- Effort data from FES (where it is conducted) remains best (sometimes the only) available science for tracking relative year-to-year and long-term fishing effort activity trends.
- **Tracking Trends:** While the magnitude of the effort estimates may change from a revised survey design, fishing activity patterns over time (increases and decreases in activity) are expected to remain similar.
- **Stock status** relatively **consistent** when this trend info hasn't changed.
- Focus on **continued conversations with partners and programmatic improvements** to further mitigate disruption to assessment and management in light of continuous survey improvement.
- Opportunity to make fisheries management more **adaptive**.



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Questions?



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