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NOAA Fisheries' Fishing Effort Survey Pilot Study and Next Steps

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Fishing Effort Survey Background

- Mail survey of residential households in coastal states; replaced the Coastal Household Telephone Survey in 2018
- Collects trip information for each resident of a responding household for specified two-month periods:
 - Number of days fished from **shore** in state of residence
 - Number of days fished from private or rental **boat** in state of residence
- Used to:
 - Estimate shore and private boat **fishing effort (trips taken)**

We sample using a USPS list of residential addresses, matched with [the National Saltwater Angler Registry](#).



Key Points

- We researched potential sources of error in the FES as part of our **continuous improvement process** and **in response to concerns** from the recreational fishing community that our effort estimates are too high.
- **Throughout 2024, a larger-scale follow-up study is being conducted** to gain a clearer understanding of the differences in effort estimates between the current design and a revised design that **changes both the question order and increases the frequency of sampling** (from 2 months to monthly = more frequent estimates for fisheries management, shorter recall period to minimize reporting errors).
- Potential effects **not species specific**. FES produces estimates of private fishing trip activity (shore/private boat effort), not specific to species. All species catch information is collected through dockside interviews (Access Point Angler Intercept Survey). Total catch = effort x catch.
- **We will know more in April 2025** when we can make full-scale comparisons between the current FES and the revised design.



FES Pilot Studies Report

- Report covers two completed studies:
 - One-month sampling (as opposed to every two-months)
 - Changing order of the 2-month and 12-month fishing-activity questions



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One-Month Waves Study Key Points

- Compared FES design to two options for one-month fishing activity questions
 - Current 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 by
Baez

Question Order Change Study Key Points

- Revising order of two fishing activity questions 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.



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

(Insert State)?

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 (Insert State)?

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**).
- First round of mailings sent end of January 2024.
- New study design informed by results of the two previous pilot studies and cognitive interviewing (random selection of anglers to evaluate thought process behind how they answer questions).
- Study will determine **combined effects of** revised design – **question order change and increasing sampling to monthly**.
- **Calibration** – Converting all prior effort estimates (historical time series) produced using current FES to scale of revised design to be able to continue tracking fishing activity patterns critical to stock assessments.

Assessment and Management Implications

- **Full potential impacts unknown** until we've completed follow-up study.
- The MRIP recreational catch and effort estimates remain the most comprehensive and best available information while the FES follow-up study is being conducted to corroborate results from the pilot study.

- **NOAA Fisheries will continue:**
 - supporting partner requests for interim fisheries management guidance
 - working with partners on transition planning to potentially implement a revised design
 - providing updates at relevant Council and Commission meetings and also continuing conversations with key partners on re-envisioning the recreational fishing data collection partnership

Tentative Timeline

2024

Administer revised design alongside current design throughout all of 2024.

Continue development of the updated FES calibration model to rescale the historical effort estimates produced using the current FES design to a revised design, so meaningful comparisons can be made between the two sets of data.

Work with Atlantic, Gulf, and Hawaii partners on preliminary planning for potentially transitioning to a new FES design.

2025

2025

Produce 2024 final estimates in April 2025.

Complete study report. Compare data produced from the current FES and the revised design.

Provide opportunities for partners and the public to learn about the study results.

Obtain an independent peer review of the FES revised design and calibration model.

Make any updates to the FES calibration model as necessary to start calibrating the historical estimates.

2026

Produce the calibrated historical catch and effort estimates in time for the normal release of final 2025 estimates in mid-April 2026.

Earliest a revised design can be implemented.

Questions



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