NOAA Fisheries MRIP Survey and Data Standards

NASEM CNSTAT Peer Review of the Marine Recreational Information Program Survey and Data Standards

Committee Meeting April 17, 2025

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MRIP Overview

NOAA Fisheries' Marine Recreational Information Program (**MRIP**) is a state, regional, and federal partnership to develop, implement, and continually improve a national network of recreational fishing surveys.

Recreational catch estimates are an important source of consistent catch information for monitoring and assessing U.S. fish stocks. Estimates of recreational catch are combined with commercial catch data, biological research, and information gathered from direct observations of fisheries to help scientists assess stock size and sustainable harvest levels. Fisheries managers use this information to **set regulations that promote the long-term health of fish populations.**

Standards Applicability

Some surveys are administered by a NOAA Fisheries Program Office, Regional Office, or Science Center. In other cases, surveys are administered by a state or territorial agency. Our partnership includes more than 25 state and regional data collection programs.

NOAA Fisheries provides financial support for the data collection priorities identified by its eight Regional Implementation Teams.

All data collection programs administered or funded in any part by NOAA Fisheries must adhere/be actively working to adhere to these standards.

NOAA FISHERIES

Saltwater Recreational Fishing
Data Collection Programs

NOAA Fisheries' Marine Recreational Information Program works with state and regional partners to develop, implement, and continually improve a national network of recreational fishing surveys used to estimate total recreational catch. These estimates help scientists and managers assess the health of our fish stocks and set rules to keep them sustainable.

Learn more at countmyfish.noaa.gov

Saltwater Sport Fish Charter/Guide Logbook Program[6]

AK Sport Fishing Survey[6]

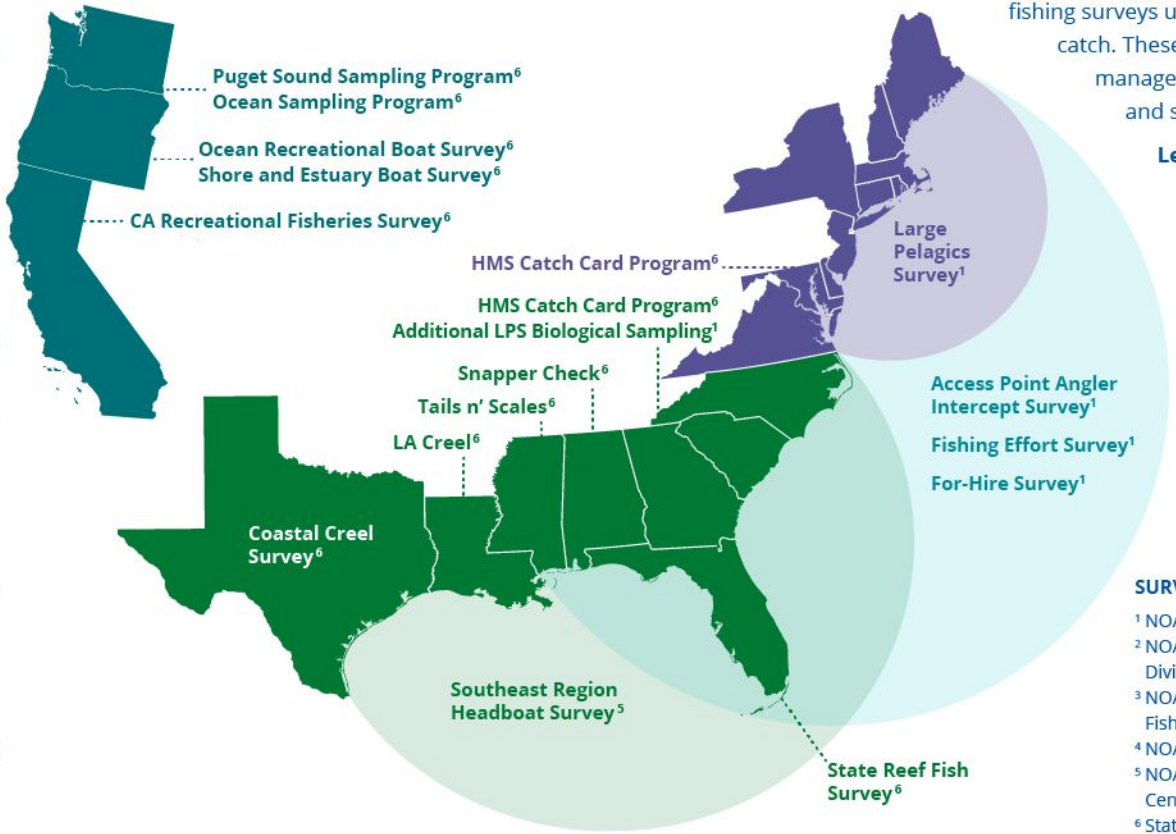
Port Sampling Projects[6]

HI Marine Recreational Fishing Survey[1]

Fishing Effort Survey[1]

Guam, CNMI, and American Samoa Creel Surveys[6]

Surveys Pending in Puerto Rico and USVI



PERMIT-BASED PROGRAMS

Atlantic HMS Landings and Tournament Reports[2]

Greater Atlantic For-Hire Electronic Vessel Trip Reports[3]

Southeast For-Hire Integrated Electronic Reporting Program[4]

SURVEY ADMINISTRATOR

[1] NOAA Fisheries Office of Science and Technology
[2] NOAA Fisheries Atlantic HMS Management Division
[3] NOAA Fisheries Greater Atlantic Regional Fisheries Office
[4] NOAA Fisheries Southeast Regional Office
[5] NOAA Fisheries Southeast Fisheries Science Center
[6] State/Territorial Agency

Standards Overview

- In 2020, following a partner review, NOAA Fisheries established the Recreational Fishing Survey and Data Standards.
- These standards guide the **design, improvement and quality of the data** produced by our recreational fishing surveys.
- **A single set of shared guidelines** is crucial for data collection and estimation across multiple recreational fishing surveys, state federal and regional programs.

https://www.fisheries.noaa.gov/recreational-fishing-data/recreational-fishing-survey-and-data-standards

Why Were the Standards Developed?

- To conform to **Office of Management and Budget requirements**.
- To meet recommendations from National Academies of Sciences, Engineering, and Medicine to **establish performance standards**.
- To align with **best practices** of **other federal statistical agencies** and programs that produce statistics for decision-making.

Development Process

Derived from **existing federal guidelines and best practices** for the dissemination of statistical information. References included:

- Principles and Practices for a Federal Statistical Agency (NASEM)
- Standards and Guidelines for Statistical Surveys (OMB)
- Practices in place at the:
  - CDC, Census Bureau, Department of Education, Environmental Protection Agency, and U.S. Geological Survey
  - United Nations Department of Economic and Social Affairs
  - International Household Survey Network

Implementation Timeline

2020

Phased Implementation Begins in Late 2020

- Phased implementation provided adequate adaptation time for fisheries stock assessors and managers.

2021 2022

Implementation Continues

- Delivered presentations to regional Fishery Information Networks
- Published MRIP Data User Handbook.
- Added preview query to Query Tool to support data users.
- Hosted a Data User Seminar Series.

2023

Implementation of Access and Information Management Standard

- In MRIP Query Tool, shifted from producing estimates in two-month waves to cumulative estimates (increased sample sizes = estimates that increase in precision throughout year). New fishing year options added.

2024

Implementation of Revised Access and Information Management Standard

- Revised Access and Information Management Standard
- Reinstated two-month wave-level estimates in MRIP Query Tool.

Seven Standards

1. Survey concepts and justification
2. Survey design
3. Data quality
4. Transition planning
5. Review procedures
6. Process improvement
7. Access and information management

Standards 1-5 are part of NOAA Fisheries' certification and transition policy/procedural directives

6: Survey annual reporting and regional implementation planning

7: Data accessibility, formatting, standards for precision

Impacts

- Promotion of nationwide **data quality**, **consistency** and **comparability** of recreational fisheries statistics, which ensures:
  - The **integrity of data collection efforts**;
  - The **quality of recreational fisheries statistics**; and
  - The **strength of science-based management decisions**.
- **Increased transparency** of data and methods used to produce them.

Precision Standards (Access and Information Management)

Precision threshold:

- Initially intended to mask imprecise estimates with a **PSE > 50**.
- Never fully implemented based on partner and public feedback (highly imprecise estimates flagged in query tool).

Cumulative estimates:

- Only **cumulative** (annually aggregated) estimates, updated with each 2-month wave of data, were made available to **make better use of the existing data in terms of precision**.
- Implemented in 2023 - reversed in 2024 based on partner and public feedback.

Intent of Precision Standards

- **Reduce potential misinterpretation of data** to best inform sustainable fisheries management.
- **Highlight gaps** in the availability of sufficiently precise estimates.
- Use of aggregation for **enhanced precision** and reliability.
- By eliminating low-quality estimates, analysts would have **more flexibility** to determine appropriate methods for filling data gaps, rather than using highly imprecise estimates, or having to explain why they aren't using them.

Changes to Standard 7: January 2024

Data users expressed concern that the initial standards **limited the ability to gauge changes in recreational fishing effort and catch over the course of a fishing year** and manage data-poor species.

Public concern regarding a perceived **lack of transparency** by NMFS – data users were continuing to use the survey microdata to produce wave estimates and estimates with PSE>50 for use in fisheries management that the public couldn't readily access in the MRIP Query Tool.

In 2024 NOAA Fisheries responded by revising the precision standard to provides additional data use guidance while maintaining access to all available estimates.

Additional Opportunities

- Rise in non-probability data sources (angler apps, cell phone mobility data, Citizen Science, etc) that may help inform fisheries science.
  - Agency has been called on to consider developing standards related to non-probability data to maximize quality, comparability, and useability of such data.
- Standards for data integration from different sources (e.g., to inform small area estimation)
- Artificial intelligence to identify and incorporate potential administrative and other data sources

Questions & Discussion