



Recreational Fishing Data Priorities for 2023

February 03, 2023

NOAA Fisheries spotlights fiscal year 2023 priorities, fiscal year 2022 achievements to support the recreational fishing data collection program.



Photo credit: Clark Lo.

NOAA Fisheries has published its Marine Recreational Information Program [Implementation Plan](#), which identifies its recreational fishing data collection program priorities for fiscal year 2023. Priorities include examining current survey designs to see where improvements can be made; implementing plans to transition to new and improved survey methods; and supporting regional data collection priorities.

“Our partners and stakeholders play a key role in achieving programmatic milestones and identifying regionally specific data collection needs,” said Richard Cody, chief of the Office of Science and Technology’s Fisheries Statistics Division. “This plan reflects their contributions and collaboration.”

Program Priorities for Fiscal Year 2023

Effective Implementation of New, Improved Survey Methods

We will continue to develop and implement [transition plans](#) in coordination with state and regional survey sponsors. They outline crucial steps for moving from one survey method to a new or improved survey method. The goal of these plans is to preserve the continuity of historical fisheries catch and effort information and to minimize disruption to fisheries management during the transition.

Redesign of the Large Pelagics Survey

We plan to complete the final phase of sampling for the new Large Pelagics Survey design. Large pelagics include tuna, sharks, billfish, and other offshore species. We will test various methods to optimize the productivity of the survey, or the number of interviews conducted per sampling assignment. Once certified, the survey design may be an option for expanding coverage and improving the precision of catch estimates for other fisheries not frequently encountered through our other surveys.

Support for Regional Priorities

We will continue to work with regional teams to update and implement their regional implementation plans. These teams are located in the:

- Atlantic (Atlantic Coast and Atlantic Highly Migratory Species)
- Pacific
- Gulf of Mexico
- Caribbean
- Pacific Islands
- Alaska

The plans specify regional data collection priorities along with funding and technical needs that help drive decision-making. They are living documents formally updated every 5 years.

Commitment to Continuous Improvement

As part of our ongoing commitment to continuous improvement and providing quality data, we will further investigate potential sources of errors in our survey designs and methodologies. We will make plans to address these once identified. While it's impossible to eliminate all potential sources of error from a survey design, certain statistical methods can be employed to help reduce error.

Key Program Highlights for Fiscal Year 2022

Developed Transition Plan for Gulf State Recreational Fishing Surveys

The Gulf of Mexico Transition Team [developed a plan](#) that outlines the process for incorporating catch estimates from Gulf of Mexico state surveys into NOAA Fisheries science and management. These state surveys include:

- LA Creel
- Mississippi Tails n' Scales
- Alabama Snapper Check
- Florida State Reef Fish Survey
- Texas Coastal Creel Survey

Administered \$3 Million to Partners to Support Regional Priorities

We provided [additional funds](#) to the Atlantic Coastal Cooperative Statistics Program, GulfFIN, and Pacific RecFIN to support increased sampling along the Atlantic, Gulf of Mexico, and Pacific coasts. This funding helps support regional data collection priorities to meet unique fisheries management needs.

Provided Tailored Technical Resources

NOAA Fisheries hosted [six webinars](#) to provide stock assessors, fisheries analysts, and other recreational data users with best practices for accessing, analyzing, and using recreational fishing data.

We also developed [informational products](#) that help explain how the agency estimates recreational catch per angler trip, number of angler trips, and total catch. They cover such topics as statistical weighting and precision.

Completed Report to Congress on In-Season Management

We completed a plan that addresses recommendations from the National Academies of Sciences, Engineering, and Medicine's 2021 study, [Data and Management Strategies for Recreational Fisheries with Annual Catch Limits](#) [↗](#).

Tracking Progress

Since 2008, NOAA Fisheries' [Marine Recreational Information Program](#) has tracked [annual updates](#) of the program's work to provide recreational fishing statistics. This information helps assess the current health of fisheries and guides informed fisheries management decisions.

Thank you to our partners and stakeholders who are critical to our collaborative operations. They include:

- Recreational anglers
- For-hire captains
- State agencies
- Fisheries information networks
- Interstate marine fisheries commissions
- Regional fishery management councils

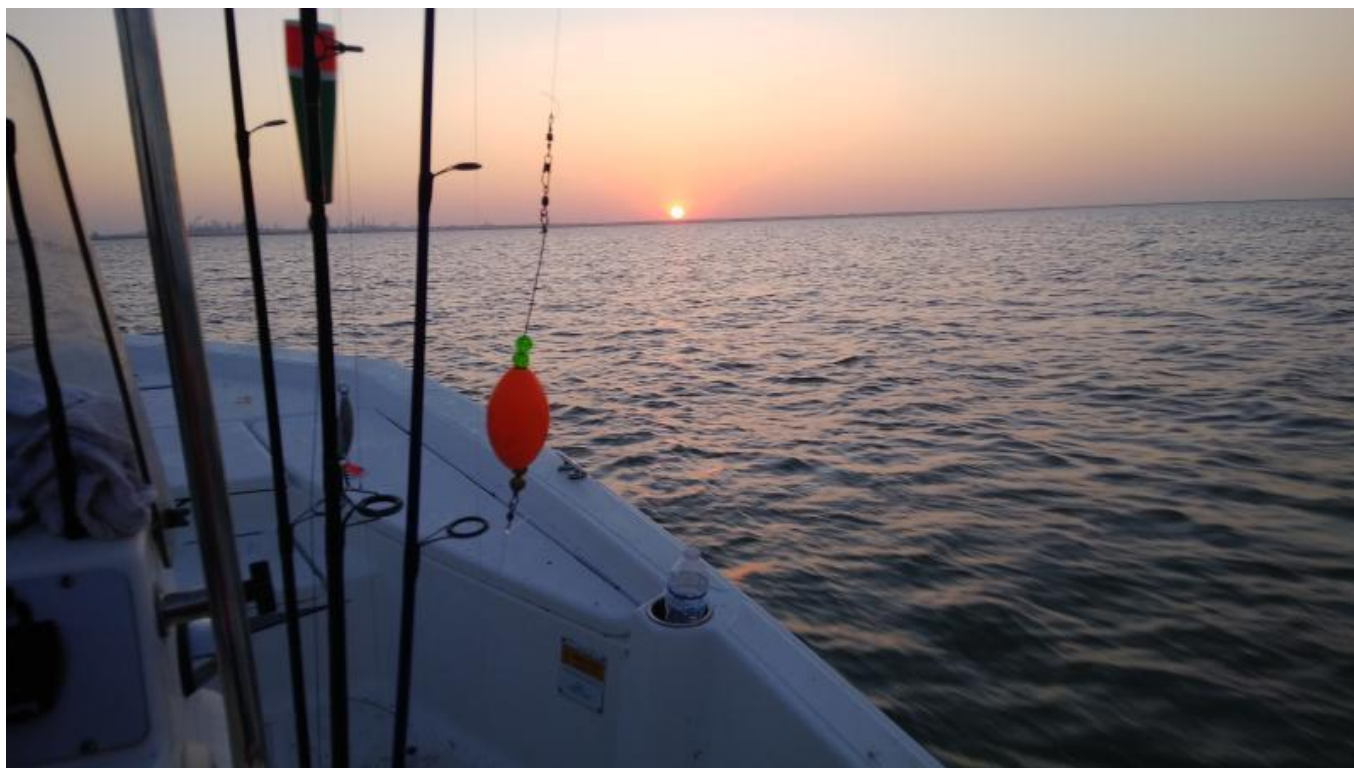
Last updated by [Office of Science and Technology](#) on February 09, 2023



NOAA Fisheries, Atlantic Coast Partners Release Plan to Improve Atlantic Recreational Fisheries Data


March 21, 2023

The Atlantic Coastal Cooperative Statistics Program and NOAA Fisheries have released a Regional Implementation Plan that highlights priorities over the next 5 years for improving recreational fisheries data collection on the Atlantic Coast.



The Atlantic Coastal Cooperative Statistics Program and NOAA Fisheries have jointly released the [Marine Recreational Information Program Regional Implementation Plan for the Atlantic Coast](#). It highlights data needs and funding priorities over the next 5 years for improving recreational fisheries data collection on the Atlantic Coast.

“Our regional and state partners are essential to developing, executing and improving our national network of recreational fishing surveys that inform catch estimates,” said Evan Howell, NOAA Fisheries, director of the Office of Science and Technology. “We rely on partners like ACCSP to efficiently facilitate regional partnerships and joint data collection activities, as well as identify regional priorities through tools like our regional implementation plans. I want to thank all of our partners for their hard work to develop this plan together, and we look forward to our continued partnership as the plan is implemented.”

[ACCSP](#)  is the state-federal partnership that collects, manages, and disseminates Atlantic commercial and recreational fisheries data and serves as the MRIP Regional Implementation Team for the Atlantic Coast. It also coordinates state conduct of the MRIP Access Point Angler Intercept Survey and For-Hire Survey from Maine to Georgia. Program partners include coastal resource agencies from 15 states and the District of Columbia, 2 interstate marine fisheries commissions, 3 regional fishery management councils, the U.S. Fish and Wildlife Service, and NOAA Fisheries. To provide better data for stock assessment and management, the ACCSP Coordinating Council and Recreational Technical Committee (RecTech) identified top priorities for improving recreational data collection on the Atlantic Coast through 2027.

Atlantic Coast Prioritized Activities

- Improved precision and presentation of MRIP estimates
- Comprehensive for-hire data collection and monitoring
- Improved recreational fishery discard and release data
- Improved timeliness of MRIP recreational catch and harvest estimates
- Expanded biological sampling of recreational fisheries
- Improved in-season monitoring

“Through the ACCSP, state, regional and federal partners are able to cooperatively identify and prioritize recreational fishery data needs for the entire Atlantic Coast and coordinate efforts to address these needs and improve recreational data collection,” said Angela Giuliano, ACCSP RecTech chair. RecTech is composed of ACCSP partner personnel who specialize in survey design, statistical estimation of fishing effort, catch, and participation, and the operation of recreational sampling programs.

The Atlantic Regional Implementation Plan will help guide NOAA Fisheries’ allocation of resources to best address the data needs of regional fishery stock assessors and managers.

“Working together, we have allocated targeted increases in sample size by month and mode to improve precision of MRIP estimates,” said Dawn Franco, RecTech vice-chair. “We are also working on methodology to improve for-hire data collection. Over the next 5 years, we can achieve even more by building on our momentum and nurturing the relationships that have been forged.”

National Perspective

NOAA Fisheries maintains a central role in developing data collection and estimation methods, administering recreational fishing surveys, implementing survey and data standards, and producing recreational fisheries statistics. Regional and state partners identify regional data collection priorities, coordinate survey operations and on-site data collection, and participate in quality assurance and quality control procedures.

Through [Regional Implementation Plans](#), each region plays a critical role in identifying which survey methods are most suitable for its science, stock assessment, and management needs. NOAA Fisheries uses these plans to develop a national inventory of partner needs and associated costs, and to annually specify priority-setting criteria for supporting those needs. These plans inform MRIP decision-making for ongoing research priorities and budget allocation. The Regional Implementation Plans are adjusted at least every 5 years or as necessary based on changing science, management needs, and budget availability.

This collaborative approach is critical to addressing region-specific needs for improving recreational fishing data and supporting fishing opportunities for generations to come.

Last updated by [Office of Science and Technology](#) on March 21, 2023



REPORT TO CONGRESS

NATIONAL MARINE FISHERIES SERVICE: RESPONSE TO NATIONAL ACADEMIES OF SCIENCES, ENGINEERING, AND MEDICINE 2021 RECOMMENDATIONS

*Developed pursuant to: The Modernizing Recreational Fisheries
Management Act of 2018 (Public Law 115-405)*

I. EXECUTIVE SUMMARY

The Modernizing Recreational Fisheries Management Act of 2018, Public Law 115-405, mandated that the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) commission a National Academies of Sciences, Engineering, and Medicine (NASEM) study that evaluates:

“(A) how the design of the Marine Recreational Information Program [MRIP], for the purposes of stock assessment and the determination of stock management reference points, can be improved to better meet the needs of in-season management of annual catch limits under section 303(a)(15); and (B) what actions the Secretary, Councils, and States could take to improve the accuracy and timeliness of data collection and analysis to improve the Marine Recreational Information Program and facilitate in-season management.”

It also required NMFS to submit a report to Congress responding to the NASEM recommendations. The first requirement was completed in 2021, and this report responds to the second requirement.

In its consensus study report, the NASEM Committee made 12 recommendations with an accompanying set of conclusions regarding data collection, data use, and alternative management strategies that NMFS and its partners, including Regional Fishery Management Councils, Interstate Marine Fisheries Commissions, and state agencies, could consider. This report describes NMFS' and its partners' detailed assessment of NASEM's recommendations, including evaluations of each recommendation and associated set of conclusions, and NMFS' proposed course of action for each. In summary:

- Many of the NASEM recommendations suggest continuing ongoing agency practices and NMFS intends to do so, and to recommend equivalent actions by partners in all such cases.
- There are several recommendations that call for exploration and development of forecasting methods for in-season catch and management. In those regions in which the regional managers are practicing or considering practicing catch forecasting, NMFS will recommend that the regional managers consider following the report's recommendations.
- The NASEM report recommends conducting research and pilot studies of a number of statistical methods to improve the precision and accuracy of catch and forecasting estimates. NMFS will explore these recommended methods where applicable and recommend their consideration by partners, including members of the MRIP Regional Implementation Teams described in Section II. Undertaking such research and development will be subject to availability of funds and will generally be prioritized based on MRIP Regional Implementation Plan priorities and the requirements of NMFS Transition Plans.
- The NASEM report includes recommendations to pursue alternative management approaches to better align management actions and accountability with data availability. In most cases, these methods are available for use at present, and NMFS will continue to recommend the Regional Fishery Management Councils consider them.

NMFS' proposed courses of action described in Section III are preliminary. The timeframe allotted by the Modernizing Recreational Fisheries Management Act to produce this report allowed for productive, initial conversations with all involved parties toward which each recommendation is directed. More discussion, planning, and coordination will be needed among NMFS, Councils, Commissions, and states to be able to develop more detailed plans to address those of the recommendations and conclusions that are identified for further action by NMFS. Any consideration by NMFS to implement these recommendations would occur in the context of NOAA, Department of Commerce, and Administration priorities and resource tradeoffs.

II. NMFS REVIEW OF DATA AND MANAGEMENT STRATEGIES FOR FISHERIES WITH ANNUAL CATCH LIMITS

NASEM published its consensus study report, *Data and Management Strategies for Recreational Fisheries with Annual Catch Limits*¹, in December 2021. The study committee recognized that MRIP has improved the recreational catch data used in stock assessments, and the program produces “critically important” data that are unlikely to be replaced “as a source of spatially and temporally consistent catch information for monitoring and stock assessment of [Regional Fishery Management] Council-managed stocks.” The committee also acknowledged that MRIP was not designed to produce the near real-time monitoring data needed to support in-season management tools, and that it would take a substantial increase in funding to expand the program for in-season management. The report presents approaches for optimizing available recreational fishing data for in-season management and alternatives for managing recreational fisheries with annual catch limits (ACLs). The report further notes:

- In-season management is not required for most fisheries nationwide due to broad regional diversity in management needs. The report identifies those fisheries for which in-season management is currently practiced or desired by Regional Fishery Management Councils, Marine Fisheries Commissions, and States.
- Electronic reporting data collection systems relying on voluntary self-reported data are “unlikely to advance MRIP over the coming years²,” especially app-based voluntary reporting, due to low participation in such programs and the high potential for bias in the resulting catch estimates. Mandatory self-reporting, however, coupled with probability-based validation surveys could be considered on a case-by-case basis for specific recreational fisheries where precise monitoring and management are considered crucial, and where sufficient compliance can be achieved. The report highlights other potential uses of self-reported data, such as for projection modeling rather than for direct catch

¹ National Academies of Sciences, Engineering, and Medicine (2021) *Data and Management Strategies for Recreational Fisheries with Annual Catch Limits*. The National Academies Press, Washington, DC. www.nationalacademies.org/our-work/data-and-management-strategies-for-recreational-fisheries-with-annual-catch-limits

² https://nap.nationalacademies.org/resource/26185/RecFish%20Report%20Highlight_2021.pdf

estimation. It also acknowledges that tablet-based field data collection³ associated with probability sampling has led to improved data quality and decreased processing time.

- The MRIP Regional Implementation Teams⁴ (RITs), whose membership includes NMFS, Fishery Management Councils, Commissions and state agencies, and other regional partners play an important role in identifying and addressing unique regional processes and needs. Many of the report's recommendations are directed at this broader coalition of partners.

The NASEM Committee made 12 recommendations with an accompanying set of conclusions regarding data collection, data use, and alternative management strategies the agency and its partners could consider. These recommendations and conclusions were complex and variable in terms of subject matter and to whom they were directed. Only one recommendation was directed exclusively at NMFS, while the other 11 were jointly directed at NMFS (spanning NMFS Headquarter Offices and the Regional Offices and Science Centers around the country), and numerous external partner entities, including Regional Fishery Management Councils, Interstate Marine Fisheries Commissions, and state agencies. As such, NMFS coordinated a dual-track evaluation effort to obtain input that would allow this report to reflect national and regional (as well as federal and partner) needs, interests, and capabilities related to recreational fisheries in-season management. On one track, an internal team with nationwide representation and a wide range of expertise from across NMFS evaluated each recommendation and set of associated conclusions. In parallel, the agency engaged the MRIP Regional Implementation Council, or the leadership of each MRIP RIT, who facilitated partner evaluation of the recommendations and conclusions. This report reflects the following entities' input:

- **From the NMFS Internal Team:**
 - Office of Science and Technology (OST)
 - Fisheries Statistics Division
 - Office of Sustainable Fisheries (OSF)
 - Domestic Fisheries Division
 - Atlantic Highly Migratory Species Management Division (OSF's Atlantic HMS Division)
 - National Saltwater Recreational Fisheries Program (RecFish)
 - Greater Atlantic Regional Fisheries Office (GARFO)
 - Northeast Fisheries Science Center (NEFSC)
 - Southeast Regional Office (SERO)
 - Southeast Fisheries Science Center (SEFSC)
 - West Coast Regional Office (WCRO)
 - Northwest Fisheries Science Center (NWFSC)
 - Southwest Fisheries Science Center (SWFSC)
 - Pacific Islands Regional Office (PIRO)
 - Pacific Islands Fisheries Science Center (PIFSC)
 - NMFS Directorate – Senior Scientist for Stock Assessments

³ www.fisheries.noaa.gov/recreational-fishing-data/recreational-electronic-reporting-glance#how-is-electronic-reporting-used-to-collect-recreational-fishing-data

⁴ www.fisheries.noaa.gov/recreational-fishing-data/marine-recreational-information-program-teams#regional-implementation-teams

- **From the MRIP RITs:**
 - Atlantic RIT
 - Atlantic States Marine Fisheries Commission (ASMFC)
 - New England Fishery Management Council (NEFMC)
 - Mid-Atlantic Fishery Management Council (MAFMC)
 - South Atlantic Fishery Management Council (SAFMC)
 - New Jersey Department of Environmental Protection (NJ DEP)
 - Maryland Department of Natural Resources (MD DNR)
 - North Carolina Department of Environmental Quality (NC DEQ)
 - South Carolina Department of Natural Resources (SC DNR)
 - Florida Fish and Wildlife Conservation Commission (FL FWC)
 - Gulf of Mexico RIT
 - Gulf States Marine Fisheries Commission (GSMFC)
 - Gulf of Mexico Fishery Management Council (GMFMC)
 - Florida Fish and Wildlife Conservation Commission (FL FWC)
 - Mississippi Department of Marine Resources (MDMR)
 - Louisiana Department of Wildlife and Fisheries (LDWF)
 - Pacific (West Coast) RIT
 - Pacific States Marine Fisheries Commission (PSMFC)
 - Caribbean RIT
 - NMFS Southeast Regional Office – Caribbean Experts
 - United States Virgin Islands Department of Planning and Natural Resources (USVI DPNR)
 - Pacific Islands RIT
 - Hawaii Division of Aquatic Resources (HI DAR)
 - West Pacific Fishery Management Council (WPFMC)
 - Alaska RIT
 - The Alaska RIT did not provide evaluations of the recommendations and conclusions. The team stated the findings of the report are of limited applicability to managing recreational fisheries in Alaska. It noted that its region does not have federally managed recreational fisheries with annual catch limits and/or requiring in-season management action by NMFS. The team further noted that in-season management action may be necessary for Chinook salmon recreational fisheries due to language in the Pacific Salmon Treaty, but those actions are taken by the state on fisheries occurring solely, or nearly so, in state waters.
 - Atlantic HMS RIT
 - SEFSC HMS Scientist
 - OST Large Pelagics Survey (LPS) Experts

In synthesizing the input provided by all the entities above, we found:

- All recommendations in the NASEM report have been considered, fully or in part, by NMFS and/or partner entities in the regions with the most in-season management needs (e.g., in the Southeastern United States). Many are actively being explored regionally,

where applicable, with opportunities to cooperatively build on existing efforts. A few have been investigated regionally and not further pursued due to resource limitations.

- The NASEM report's recommendations and conclusions are particularly relevant to the members of the RITs. The RITs were created to address the variability in data collection based on fisheries and management needs. These recommendations highlight the critical role these bodies play in developing data collection improvements based on the unique management needs and priorities of each region.
- NMFS and RITs generally supported pursuit of many of NASEM's recommendations, noting that different regional management needs necessitate potentially different approaches in response. They highlighted the Atlantic and Gulf regions as having the most in-season management needs for recreational fisheries, and the West Coast, Pacific Islands, Caribbean, and Alaska as having numerous differing needs.



NOAA FISHERIES

Office of Science and Technology

NOAA Fisheries' recreational data collection program, MRIP, is a state-regional-federal partnership that develops, improves, and implements a national network of recreational fishing surveys to estimate total recreational catch.

MRIP Survey and Data Standards guide the design, improvement, and quality of data produced by our surveys.

7 Key Areas:

- Survey concepts and justification
- Survey design
- Data quality
- Transition planning
- Review procedures
- Process improvement
- Access and information management

Marine Recreational Information Program Survey and Data Standards

WHAT DO THE STANDARDS DO?

The shared use of a single set of survey requirements and guidelines across seven key areas helps promote data collection and distribution consistency across the national network of recreational fishing surveys. By implementing these standards, we help reduce ambiguity and potential misinterpretation of data to best inform sustainable fisheries management.

WHY WERE THE STANDARDS DEVELOPED?

The standards were developed to meet recommendations from the National Academies of Sciences, Engineering, and Medicine to establish performance standards. The standards also align with requirements and best practices of other federal agencies that produce statistics for decision-making. As part of the government's guidelines for statistical programs, the Office of Management and Budget requires federal agencies to establish their own criteria for determining when an estimate is too unreliable or imprecise to publicly release (precision standard). The precision standard also creates flexibility for data users to pursue alternative analysis options that use more precise estimates.

Implementation Timeline



HOW WAS THE PRECISION STANDARD DEVELOPED?

Our precision standard (not providing highly imprecise estimates with PSEs above 50, which are typically not statistically different from zero) was developed through collaborative feedback from partners who explored effects of imprecise estimates on stock assessment results. Partners determined estimates above 40 PSE should be used with caution. The U.S. Census Bureau does not provide estimates with a PSE above 30. The Atlantic Coastal Cooperative Statistics Program continues to set a goal of achieving PSEs below 30.

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