

Data and Management Strategies for Recreational Fisheries with Annual Catch Limits

GMFMC Briefing Presented by
Dr. Luiz Barbieri, Committee Chair
October 27, 2021



Introduction

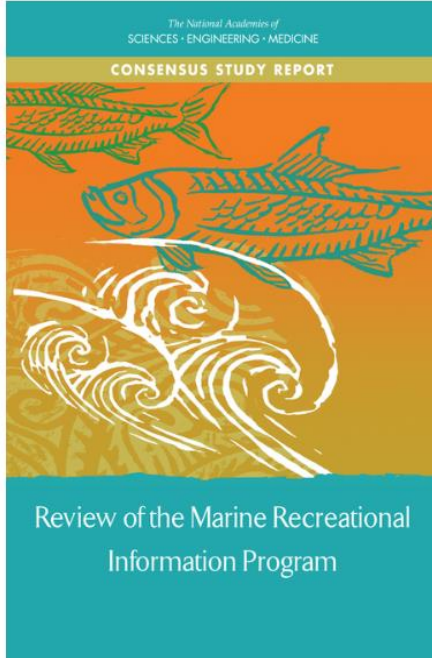


Marine recreational fishing:

- Conducted across the nation
- Economically impactful
- Distinct from commercial or subsistence-oriented fishing
- Diverse and dispersed → Difficult to assess



Study Context



- **2017:** National Academies review of the Marine Recreational Information Program (MRIP)
 - Major improvements to the survey
 - In-season monitoring still a challenge
- **2018:** Modernizing Recreational Fisheries Management Act (MFA)
 - Called for a National Academies study on how well MRIP meets the needs of in-season management of fisheries with annual catch limits (ACLs)

Committee Charge



if and how the design of the 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 ACLs



what actions the Secretary, Councils, and States could take to improve the accuracy and timeliness of data collection and analysis to improve or supplement the MRIP and facilitate in-season management



alternative management approaches that could be applied to recreational fisheries, consistent with requirements for fisheries with ACLs, for which the MRIP is not sufficient to meet the needs of in-season management

Study Committee

Luiz R. Barbieri
Chair

- Florida Fish and Wildlife Conservation Commission
- St. Petersburg, FL

Yong Chen

- Stony Brook University
Stony Brook, NY

Chris Dumas

- University of North Carolina Wilmington
Wilmington, NC

Michelle Duval

- Mellivora Consulting
- West Chester, PA

Steven G. Heeringa

- University of Michigan
Ann Arbor, MI

Kai Lorenzen

- University of Florida
Gainesville, FL

Sean Powers

- University of South Alabama
Mobile, AL

Steven Scyphers

- Northeastern University
Nahant, MA

Tien-Shui “Theresa”
Tsou

- Washington Department
of Fish and Wildlife
Olympia, WA

Zhengyuan Zhu

- Iowa State University
Ames, IA

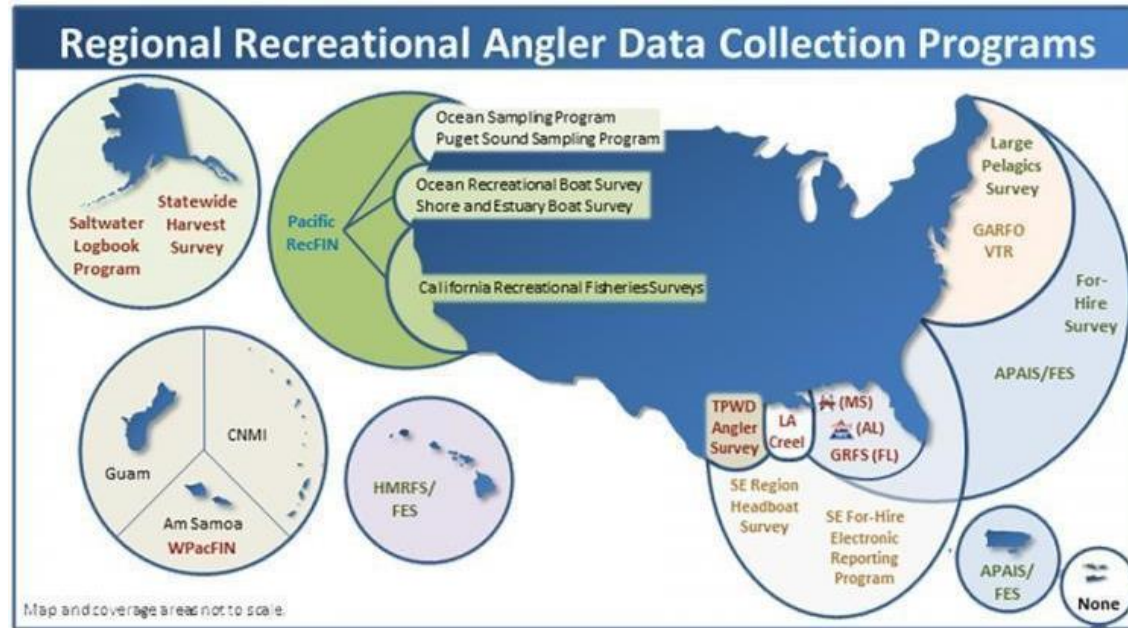


Report Structure

- Summary
- Chapter 1 - Introduction
- Chapter 2 - The U.S. Fisheries Management and Assessment Framework
- Chapter 3 - Existing Recreational Fisheries Surveys and ACL-Based Fisheries Management
- Chapter 4 - Optimizing Use of MRIP Data and Complementary Data For In-Season Management
- Chapter 5 - Alternative Management Strategies for Recreational Fisheries
- Appendices



Recreational Fisheries Surveys



Highlights the challenge of meeting each region's diverse recreational fisheries data needs

Main Takeaways - Data

- MRIP was not designed for the purposes of in-season management of recreational fisheries with ACLs
- Consistent long-term catch monitoring provided by MRIP is still critical for fisheries assessment and management



Main Takeaways - Data

- Transition to monthly catch estimates
 - Would require doubling of resources
 - Benefits transcend just in-season management
- MRIP should explore providing its partners with direct access to the continuous streams of raw data



Main Takeaways - Data

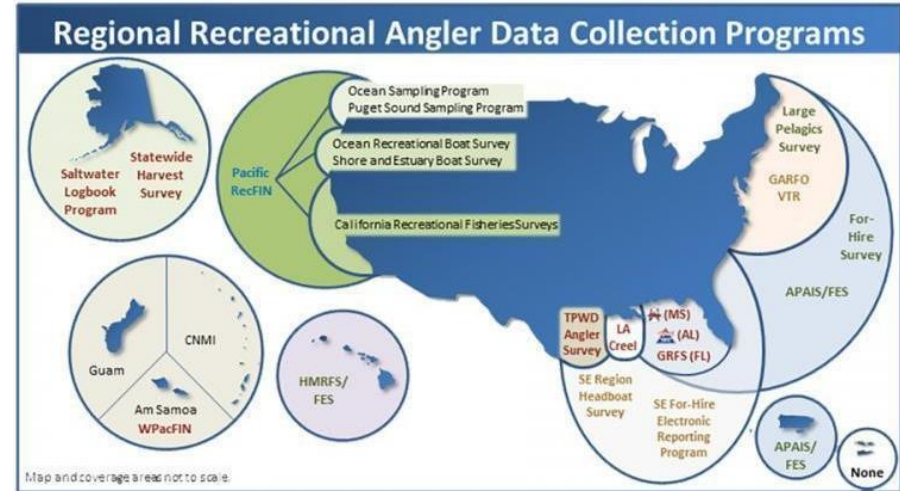
Alternative or Supplemental (state) Surveys

- Have achieved a variety of benefits (e.g., greater timeliness, spatial resolution, & greater precision)
- Improved timeliness through the use of new technologies, & reduced lag times in data processing & release
- Have been shown to provide different estimates for the same fishery (stock and area)



Main Takeaways - Data

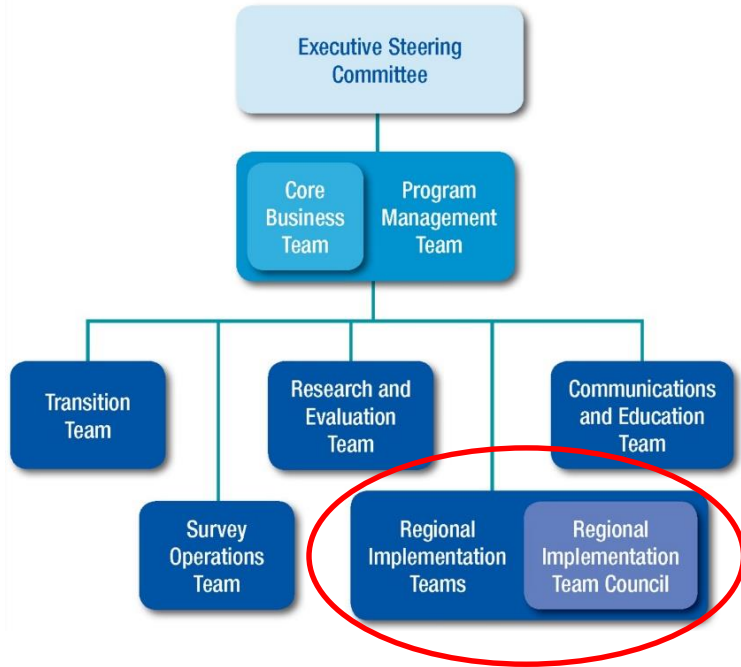
- Implementation of supplemental surveys should be based on close state-federal coordination at the regional level & calibration of different surveys should be a priority



Main Takeaways - Data

MRIP Organizational Chart

Effective November 2018



- By utilizing existing infrastructure developed by regional Fishery Information Networks (FINs), **MRIP Regional Implementation Teams** provide the framework for integrating regional & state partner input
 - Identify regional priorities
 - Ensure regional coordination for addressing stock assessment and management needs

Main Takeaways - Data

- Consideration of new statistical techniques, survey methods, & additional data sources is recommended to improve or supplement MRIP for in-season management
 - Defining and managing outliers
 - Use of supplementary and ancillary data to improve estimates and projections



Main Takeaways - Management

- MFA: NOAA Fisheries and Councils can implement alternative management approaches if they still adhere to the MSA.
 - Harvest rate management
 - Harvest tags
 - Depth/distance-based management
 - Conservation equivalency
 - Permits, endorsements, and stamps



Main Takeaways - Management

Recommendation: NOAA Fisheries & MRIP should work in coordination with the Regional Fishery Management Councils, Interstate Fisheries Commissions, & States to, on a region-by-region basis, test:

- 1) Use of harvest tags for low-ACL, rare-event species, or other species that may not be well suited for sampling by MRIP
- 2) Implementation of a private recreational fishing license endorsement focused on the subset of anglers that target Council-managed species



Main Takeaways - Management

- Consider a generalized carry-over provision for recreational ACL underages and overages
- Such carry-over approaches have been found to be generally sustainable



Main Takeaways - Management

- Develop a process for engaging recreational fisheries stakeholders in a more in-depth discussion of OY
- Use this framework to identify and prioritize management objectives of the angling community



Thank you

The report is available for
download at nap.edu

