

**A MRIP Primer**  
**Prepared for the Maryland SFAC**  
**April 25, 2017**

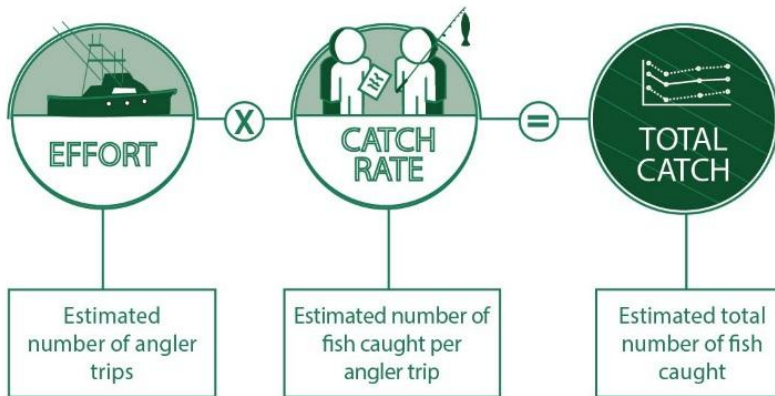
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**What is MRIP?**

- MRIP stands for Marine Recreation Information Program.
- MRIP is a project conducted by NOAA Fisheries to produce estimates of recreational saltwater fishing on the Atlantic Coast, Gulf of Mexico, Pacific coast and Hawaii.

**How does it work?**

- A simple concept!



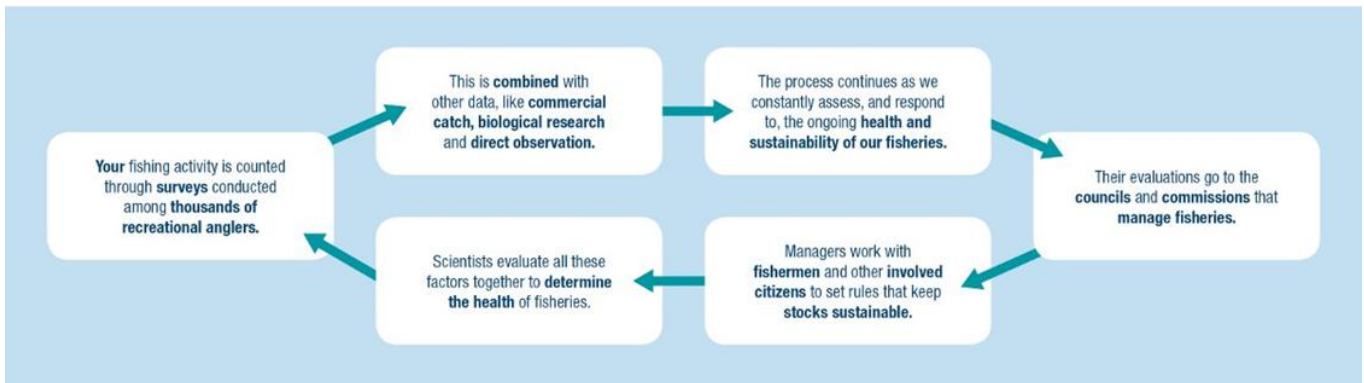
**What does MRIP say about Maryland’s saltwater recreational fishery?**

- Most Maryland saltwater fishing is in Chesapeake Bay.
- There are approximately 2.5 million saltwater angler trips in Maryland each year.
- Each year, about 3500 Maryland saltwater anglers are interviewed after a fishing trip.
- Small boat fishing dominates! 58% of Maryland saltwater angler trips are on private/rental boats, accounting for 67% of the harvest of Maryland’s top 8 species.
- Maryland has relatively few targeted species (compared to FL, MA):

	Typical Harvest*	Typical Precision*
White Perch	1,800,000	23
Spot	1,700,000	21
Atlantic Croaker	950,000	23
Striped Bass	500,000	13
Bluefish	350,000	24
Summer Flounder	51,000	37
Black Sea Bass	48,000	21
Tautog	22,000	44
	* rounded 10-year average	* 10-year average PSE (% Standard Error) Value < 25 = Good

## How is MRIP information used?

- It's a cyclical process:



- Recreational fishing information is used in 2 ways in management of migratory saltwater species:
  - As input for multi-state stock assessments conducted by the ASMFC and federal Management Councils;
  - To adjust regional and state quotas to ensure fisheries sustainability.

## Who runs MRIP – and why is it changing?

- Many saltwater species targeted by recreational anglers migrate across state and federal boundaries, so the *National Marine Fisheries Service* (part of NOAA) is required by federal law to collect recreational fishing data – so the information is collected across states in a consistent way.
- This began in 1981 with the Marine Recreational Fishing Statistical Survey (MRFSS).
- The National Research Council published a critical review of the MRFSS in 2006, recommending substantial changes to both the data collection and estimation methods.
- MRIP is “the new MRFSS”.

## What changes have already been made?

- The *estimation procedures* were overhauled and revised historical harvest values were published in 2012. Some other states saw large changes in For-Hire estimates and worsened precision of some species estimates - but the new Maryland values were not significantly different!
- The *Access Point Angler Intercept Survey (APAIS)* collects data from recreational fishermen returning from trips to calculate *catch rate*. Major survey changes started in 2013 and minor changes in implementation are ongoing. Maryland took over field management of the APAIS in 2016 - angler interviewers are now our employees, hired, trained and managed by our staff! Because APAIS angler interviewers are now DNR employees, we are developing a much better understanding of our recreational fishery AND how it is sampled.
- The *National Saltwater Angler Registry* was implemented in 2012 to improve sampling for the *effort survey*. Maryland already had a saltwater angler license for Chesapeake Bay and tidal tributaries, but had to implement a Coastal fishing license.
- MRIP has started the process of changing the private angler *effort survey* from the *Coastal Household Telephone Survey (CHTS)* to a mail survey called the *Fishing Effort Survey (FES)*.
  - A pilot study of the FES was conducted over a 16 month period in Massachusetts, New York, North Carolina, and Florida. The FES effort estimates were consistently greater than CHTS estimates; differences ranged from a factor of 2.1 for boat fishing in North Carolina to 6.4 for shore fishing in Florida.
  - MRIP has been conducting the telephone and mail surveys concurrently since 2015, and will do so through 2017.
- MRIP has started the process of changing the *For-Hire Survey*, which accounts for angler trips on charter boat and head boats. This is currently a separate weekly survey of For-Hire vessel operators.

## What changes are still coming?

- MRIP is developing a *calibration model* to understand the differences between the estimates produced by the old and new methods. This should be completed in 2017.
- Once a calibration model has been approved, the model will be used to generate a *corrected time series of recreational catch statistics*, and MRIP will discontinue the use of the CHTS. This is expected by early 2018.
  - We do not expect huge increases in harvest estimates for species primarily caught by private boat anglers (like striped bass), but we may see increased estimates for black sea bass and tautog.
- The revised estimates will be incorporated into *stock assessments* starting in 2018.
  - If recreational harvest estimates increase, this may result in larger estimated stock sizes.
- We would like to see more precise estimates for our Coastal fisheries. Through APAIS, we plan to work with NOAA to improve sampling of the black sea bass and tautog fishery (For Hire boats, on the coast) and summer flounder fishery (in the Coastal Bays).

## Are MRIP results reliable? I've heard of some crazy estimates!

- MRIP makes estimates by “scaling up” a relatively small number of angler interviews, and so has limitations:
  - MRIP generally provides good annual estimates for species that are caught (1) often, (2) across a wide area and (3) by many anglers. Think striped bass!
  - MRIP is not designed to produce good estimates for “rare event” species, *OR* for short time periods *OR* for specific fishing modes.
  - MRIP can produce unrealistic *preliminary* estimates for species caught by anglers on For-Hire vessels on the Coast. Due to the data collection design of the For-Hire Survey, information from our Coastal For-Hire fleet is incomplete until the federal Vessel Trip Reports (VTR) are received in March of the following year. This causes unrealistic preliminary estimates of species like black sea bass and tautog.
- Problems happen when the “odd” MRIP estimates are applied by management without accounting for these limitations!

## Can MRIP and Maryland Fisheries Management fix the problems?

- There are 2 solutions:
  - Spend millions of dollars to sample *lots* more anglers. We don't have that money, nor do the feds.
  - Modify management to account for MRIP's limitations. This is a complex process that will involve changing federal law.
- Our interest is to have the best estimates possible for targeted managed species – particularly improved estimates for *summer flounder, black sea bass, and tautog*. To that end, we will be working with MRIP to adjust sampling to improve coverage of these fisheries.

## The alphabet soup

- **APAIS** – Access Point Angler Intercept Survey
- **ASMFC** – Atlantic State Marine Fisheries Commission
- **CHTS** – Coastal Household Telephone Survey
- **FES** – Fishing Effort Survey
- **FHS** – For-Hire Survey
- **MRIP** – Marine Recreational Information Program

## Who can I contact with more questions about MRIP?

- Linda Barker at [Linda.Barker@maryland.gov](mailto:Linda.Barker@maryland.gov)
- NOAA Fisheries, Recreational Fishing Statistics at [st1rec@noaa.gov](mailto:st1rec@noaa.gov)