



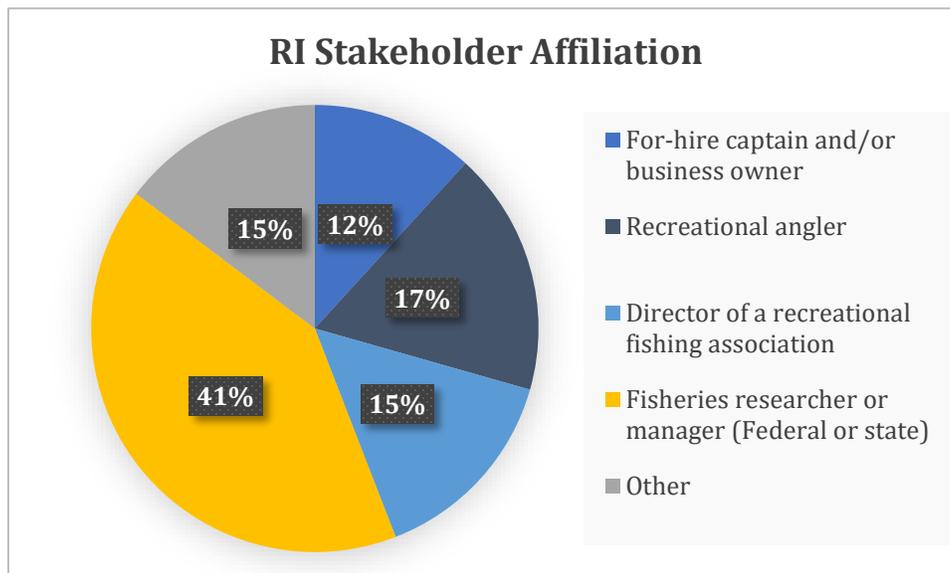
**NOAA
FISHERIES**

Summary

New England Recreational Fishing Workshop University of Rhode Island, Narragansett Bay, RI October 24, 2019

Attendance

The Narragansett Bay, Rhode Island workshop had had 28 attendees of the 40 registered. The pie chart depicts stakeholder affiliation for the attendees only. There was diverse representation, including participants from charter/party boat captains; private anglers; NOAA Fisheries' Greater Atlantic Regional Office; Northeast Fisheries Science Center; Massachusetts Division of Marine Fisheries (MA DMF); Rhode Island Department of Environmental Management, Division of Marine Fisheries; Rhode Island Saltwater Anglers Association; Rhode Island Party and Charter Boat Association; American Sportfishing Association; University of Massachusetts School for Marine Science and Technology (UMass SMAST); University of Rhode Island; The Nature Conservancy; and Inspire Environmental.



Opening Remarks

Moira Kelly of the Greater Atlantic Regional Fisheries Office (GARFO) within the National Oceanographic and Atmospheric Administration (NOAA) began the workshop by highlighting the importance of recreational fisheries. The recreational fishing industry has a \$24 billion economic impact across the U.S., contributing 2.2 percent to the national GDP.

There are 10 million saltwater anglers in the U.S. and the recreational fishery supports 500,000 jobs and 63 million fishing trips annually.

Due to the size of recreational fisheries, they are diverse and difficult to manage. NOAA works collaboratively with fishermen and recreational fishery stakeholders to figure out best management practices for the industry. The workshops are a critical component of the open conversation between NOAA and stakeholders, and a means of generating creative solutions for sustainable and equitable regulations going forward.

Jessica Joyce of Tidal Bay Consulting discussed the goals and objectives of the workshop, balancing the biological and regulatory requirements with the economic needs and interests of the recreational fishing community. Participants are gathered to generate both short- and long-term ideas and to consider possibilities for new regulations and pilot studies, even if they are considered “out of the box.”

Status of the Recreational Fishery

Emily Keiley of GARFO presented background information on how recreational groundfish species are managed in New England. Gulf of Maine (GOM) cod and haddock are the only two groundfish species with a recreational allocation. GOM cod and haddock have sub-annual catch limits (ACL) and accountability measures (AM). Management measures are designed to achieve, but not exceed the sub-ACLs. Other stocks may be allocated to the fishery if they meet two criteria: (1) Recreational catch that is 5 percent or more of the total catch; and, (2) the stock is fully utilized. Ms. Keiley reviewed the recreational management measures for the last 10 years, as well as an overview of the management process, including recent changes to how Georges Bank Cod was managed in fishing years 2018 and 2019, with a recreational catch target.

Moira Kelly gave a presentation on the status of three-year transition to the Marine Recreational Information Program (MRIP), including information on the collaboration between the states and federal government to develop, improve, and implement surveys to better understand how many trips anglers take and estimate catch based on a sample survey method. The Fishing Effort Survey (FES) measures shore and private boat effort utilizing a mail-based survey and has resulted in more accurate information and a response rate three times higher than the previous Coastal Household Telephone Survey (CHTS). Effort is also measured with a for-hire survey of charter/party and head boats, as well as Vessel Trip Reports (VTRs), and a large pelagics telephone survey. Catch is estimated through the Access Point Anger Intercept Survey (APAIS), with dockside intercepts and at-sea sampling on for-hire boats. Starting in 2016, sampling is conducted by state partners. While FES estimates are several times higher than those from the CHTS, it does not necessarily mean overfishing has been or is occurring. At this time, one goal for MRIP is to develop and certify a census-based trip reporting design for determining catch from for-hire fisheries, considering electronic logbook reporting, compliance monitoring, and dockside validation.

Scott Steinback of NOAA's Northeast Fisheries Science Center (NEFSC) presented on the trends in recreational catch. He discussed how there is variability in the MRIP catch estimates. In the cod fishery, since 2014 cod have been primarily released and cod are being caught less than haddock. Early in the time series (1982-1999) GOM haddock was not caught, but then catches increased significantly starting in 2000. It is not clear why GOM haddock had a big decline in 2018. In the GOM, cod and haddock are mostly caught by private boats. Catch estimates of Georges Bank cod have also experienced a general decline, with 2018 catches representing the third lowest in whole time series (1982-2018).

GOM pollock catch has also been decreasing, but not as significantly as cod catches. Pollock has some shore and for-hire catch, but it is mostly caught by private boats. GOM angler trips have been declining since 2012 and 2013. In the GOM, about half of the trips report catching nothing during their trip. The top five recreational species caught in the GOM are mackerel, striped bass, haddock, pollock, and cod. The top landed species in Georges Bank (in numbers of fish) are: scup, striped bass, black sea bass, summer flounder, and bluefish.

Dr. Russel Brown of NEFSC presented the stock assessments that were part of the 2019 groundfish management track assessments, using data through 2018. GOM cod, GOM haddock, and pollock were assessed using the Age Structured Assessment Program (ASAP). Georges Bank cod is analyzed using an index-based method, based on survey indices and recent fishery catch. The GOM cod assessment uses data from 1982 to 2018, and looks at the commercial fishery and the recreational fishery as a combined, single fleet. The new recreational catch estimates for GOM cod are scaled up compared to the old estimates. GOM cod recreational discards have become a concern, as some cod die after being released. The recommended status for GOM cod is overfished and overfishing is occurring. Georges Bank cod stock status cannot be determined using the index-based method, but the status is declared to be overfished due to poor stock conditions and the overfishing status is unknown. GOM cod and Georges Bank cod are considered distinct from each other, so these fish populations are managed separately. A reassessment of cod stock structure is underway, which will determine how these populations are managed going forward. The status of the GOM haddock stock is not overfished, and overfishing is not occurring. The status of GOM pollock stock is not overfished and overfishing is not occurring.

Recent Fishery Research

In Narragansett, Joseph Langan of the University of Rhode Island presented research on Atlantic cod in Southern New England (SNE). Mr. Langan described how cod larvae density throughout Narragansett Bay had a higher density between 2016 and 2017 than from 2001 to 2008. There is high interannual variability in cod catches. Their research has found that cod abundance has increased in SNE since 2000. As temperature changes, they are seeing no evidence of cod deviating from their historical thermal preferences, and there is an exponential relationship between a warm winter and a low young cod catch. This indicates that young cod are less abundant following warm winters. Their research also reveals that black sea bass appear to be a major competitor of cod in this region, as the species have

similar diet preferences. Going forward, there is a need for more research on the spatial and thermal habitat use patterns of cod.

Brian Gervelis of Inspire Environmental gave a presentation entitled “A hook and line reconnaissance survey assessing the relative prevalence of Atlantic cod spawning aggregations at and near the South Fork Wind Farm.” Mr. Gervelis described their research on Cox Ledge over

two years and 28 trips, where they took 82 total cod samples, some of which were in spawning condition. The sampling methods using hook and line were necessary on Cox Ledge because little trawl survey data exists due to the area’s bathymetry and rocky bottom. Their research yielded low catch of cod, which was consistent with other research findings from the area, but they identified one large spawning aggregation in year one of the study.

In response to a question about the availability of a discard mortality study for Georges Bank Atlantic Cod, caught in the winter recreational fishery off southern New England, we learned that New England Aquarium is starting this project in this November 2019 and it will continue into January-February of 2020. This work hinges on results from previous Gulf of Maine discard mortality studies on Atlantic cod and results will (hopefully) be available by late March or early April 2020.

Greg DeCelles, from MA DMF, presented a poster, “*Using Advanced Technologies to Map the Distribution and Habitat Use of Spawning Cod on and near Cox Ledge*”. This is a collaborative research project with partners from NOAA Fisheries, UMass S Mast, Rutgers, Woods Hole Oceanographic Institute, and The Nature Conservancy. The study objectives include:

- Tag spawning cod with acoustic transmitters and track their movements and habitat use using an array of acoustic receivers and an autonomous glider.
- Use passive acoustic monitoring to identify when and where cod and other fish spawn in the region.
- Collect detailed environmental data to better understand the thermal preferences and habitat use of cod.
- Collect biological samples from cod in the region to investigate their spawning season, growth, maturity, age structure, and stock identity.

Management Approaches

Based on the stakeholder discussions during the break out and group sessions, the attendees proposed the following recommendations:

Long-term management approaches (*Attendees were provided with four different questions for break-out groups, and were allowed to self-select and contribute to up to three different groups.*)

New management measures

- Rethink separate measures in the for-hire fleet, as there is a perception that recreational anglers may put the for-hire fleet out of business. GARFO and NEFMC

could provide guidance on the framework of such a program, and then start a scoping process.

- Instead of new management measures to control effort, quota should be allocated by mode, allowing more flexibility with an output control, and perhaps relaxing input controls.
- Consider multi-year regulations with triggers and associated adjustments to management measures that could be specified to ensure that catch was not too far above, or below, the sub ACL. Participants like the stability of multi-year measures, but noted that they are challenged by implementation, bycatch, and year-to-year variation.
- Gear modifications should be voluntary during the initial education phase, and then mandatory.
- Consider different management approaches for species that are targeted for catch and release versus those targeted for a meat fishery. For example, there isn't a catch and release industry around GOM or Georges Bank cod, whereas striped bass has a catch and release focus. Management measures shouldn't have a one-size-fits-all approach.
- Transition MRIP from a sample to a census effort.

Proposed pilot projects

- Determine whether management pilot studies are feasible through an exempted fishing permit (EFP) that would apply to multiple FMPs (state and federal). If feasible, the study would assess how trips would be affected if they could change target species and location from day to day, based on customer preferences. For example, headboat trips could fish for fluke for half of the day in the summer, in the fall fish for tautog, and in the winter fish for cod. The study could include striped bass, tuna, tautog, summer flounder, black sea bass, and scup. The study and EFP would be conducted through an omnibus action with states, GARFO, the mid-Atlantic Council, NEFMC, and ASMFC.
- A study could determine how to allocate Georges Bank cod to private anglers and to party charter boats. The study would assess how you set an initial allocation and compare allocation numbers based on historical catch data and VTRs.
- Developing an app for private angler VTR.

Planning and coordination

- Coordinate federal and state regulations, and maintain consistent regulations across fisheries to keep them simple and memorable.
- The earlier that fishermen know regulations, the better they can plan. Ideally fishermen would know regulations by January or February, allowing them to incorporate the information into their meetings in the spring, and improve advertising and marketing of trips. Uncertainty around regulations results in a lack of commitment for charter patrons.
- The Magnuson Stevens Act needs to be revised, and the definition of "maximum yield" needs to be revised so that it does not solely focus on the commercial fishery but prioritizes ecosystems.

Education and conservation

- Increase education and outreach on the conservation benefits of hook and bait fishing instead of jigs for cod fishing.
- Emphasis on creating education materials that help fishermen understand best practices for catch and release, increase knowledge of regulations, and improve understanding of MRIP intercept surveys so more fishermen participate. Education materials should focus on videos to share on YouTube and social media.
- Incorporate ecosystem level assessments and rules to promote conservation.

Reporting

- VTR catch and effort data should be used in management and science.

Future research needs

- Participants emphasized the need to research climate change impacts on species distribution, species competition, habitat preferences, and potential changes in biological targets (reference points).
- Future allocation and regulations of sea bass and fluke by researching future habitat projections and life cycle connectivity.
- Methods to reduce MRIP uncertainty should be evaluated.
 - Increase collection of effort data through aerial surveys, remote sensing or shore-based cameras to count anglers on shore and at boat ramps.
 - Validation of VTR/eVTR data for catch (vs. effort only) on party and charter boats.
 - Pilot study - test EM validation of VTR data. Can be used to ground-truth MRIP data, or replace MRIP sampling of for-hire vessels (shifting this effort to private anglers).

Short-term management approaches (*Attendees were all provided with the same question for the short-term break out groups: considering long-term approaches as well as existing measures and new approaches, how can we take steps in the short-term to achieve, but not exceed quotas?*)

In order to queue up the groups, Ms. Keiley briefly presented on the recreational management measures ‘tool box’, and provided innovative management examples from the commercial fishery.¹

Education

- Participants emphasized the need for education of recreational anglers through social media, fishing associations, and during licensing. Comparisons were made to the Shark ID video (HMS endorsement) and the Rhode Island shellfish license application process, which requires Vibrio training.

¹ Refer to the Recreational Management Measures Toolbox handout on the workshop website for more information.

- Educational materials should be translated into all languages that are relevant to the target areas and audiences. The materials should be released in all New England states.
- Fishermen identified several videos that would be of interest: 1) management measures; 2) best practices for handling, target areas, basic technique, and gear modification for tackle; and 3) the importance of MRIP.
- The outreach effort could leverage industry partnerships (with the for-hire fleet distributing materials).
- Events could be held at schools and libraries for fly tying, catch and release training, or cooking classes to encourage people to eat different species.

New measures

- Some participants were interested in using a 3- or 5- year running average of MRIP catch to evaluate management performance relative to the sub-ACL, and determine if AMs should be triggered. Averaged catch data could also be used as the basis for determining new measures. Participants felt this would help alleviate the challenges associated with MRIP variability.
- For Georges Bank cod, it was suggested that catch targets are recalculated based on the most recent 5 years of data. A trigger could be established in case catch is outside the confidence interval.
- Some fishermen thought that gear modifications should be voluntary at first and then be made mandatory, or that enforcement penalties are put in place to reduce mortality. For example, banning treble hooks gradually before making the change permanent. Gradual changes help tackle shops and anglers prepare.
- A mixed bag approach is a possibility due to fewer discards; however, targeting specific species may be a concern for some anglers.
- There was mixed support for separate measures by mode.
- Consider implementing a tag program during shorter seasons for low allocation species (e.g., cod) as an output control.
- The success of any new measures will depend on effective outreach and enforcement.

Marine Recreational Information Program

- Increase MRIP sampling and intercept surveys. Surveys should be reallocated from for-hire trips which use VTR/eVTR to private anglers.
- Some fishermen were interested in seeing MRIP interviews made mandatory or incentivized so that more accurate information on the fishery is collected from the recreational fishing population.
- There should be increased advertising of the importance of MRIP at trade shows, online, and in magazines to encourage fishermen to participate in the program.

Next Steps

Going forward, the ideas generated from these workshops will inform future recreational fisheries management strategies. Participants learned that the findings of these workshops will be summarized and shared with the New England Fishery Management Council, including its

Groundfish Committee and Recreational Advisory Panel. The proposed recommendations produced during the workshops will be considered within the current Council process for developing recreational management measures with continued public input. Further, any recommendations applicable to state programs and/or the Atlantic States Marine Fisheries Commission will be communicated to the appropriate individuals.