

Appendix H. Best Fishing Practices Outreach Campaign

I. Release Survivorship in the Snapper Grouper Fishery

Regulatory measures combined with growing fishing effort in the South Atlantic snapper grouper fishery, particularly from the recreational sector, have led to a drastic increase in the number of non-target snapper and grouper that must be released. Consistently improved technology allows fishermen to better locate and target species while larger and faster vessels improve access to productive fishing grounds. Due to the multispecies nature of the snapper grouper fishery, it is common for non-target species to be caught and released due to regulatory or other reasons, while fishing for other species. The increase in releases has led to an increase in the number of fish that die after being caught and released. This problem is illustrated by red snapper where the number of dead releases far outnumbers fish removed from the population by harvest (SEDAR 73 2021). Large numbers of released fish limit the Council's ability to prevent overfishing and reduce the number of fish that can be sustainably landed by the fishery. While there are management and fishermen efforts in place aimed at improving survival after release through best fishing practices (BFP) and the use of descending devices, more outreach and education are needed to ensure these practices become ubiquitous throughout the fishery. Stakeholder involvement and a better understanding of their role in addressing these issues is key to reducing the number and improving the survival of released fish.

II. Outreach and Education Goals and Objectives

- Increase knowledge of fishing methods that will improve survivorship of released snapper grouper species, including:
 - Understanding of barotrauma
 - Signs of barotrauma
 - Types of descending devices
 - Proper use of descending devices
 - Proper handling techniques
 - Avoidance of non-target species
 - Stock benefits from increased use of BFP
- Encourage the active use of BFP when fishing for snapper grouper species.
- Improve knowledge of Council regulations related to BFP, including descending devices and circle hooks.
- Gather information on the utilization of descending devices and other BFP.
- Increase knowledge of and participation in Council activities.
 - Citizen Science Program including SAFMC Release project.
 - Opportunities to serve on advisory panels or make public comments.
- Build and maintain relationships with fishing communities.
 - Periodic contact both in-person and via email.
 - Consistent distribution of BFP and Citizen Science outreach materials.

III. Current Outreach and Education Efforts

Important Note: This level of outreach would *not* be possible without the help of our stakeholders and government partners. The South Atlantic Sea Grant offices involved in the multi-year, multi-state reef fish extension grant are collaborating with the Council to provide a South Atlantic Reef Fish Extension/Communication Fellow (Ashley Oliver) to address the communication and outreach needs of the snapper grouper fishery and BFP. While housed at the Council office, the fellow is financially supported through Sea Grant. Additionally, state agencies, local community leaders, and advisory panel members have been instrumental in helping staff find opportunities to share BFP information.

Moreover, the BFP and citizen science outreach campaign for SAFMC Release have become close partners due to their overlapping goals and messages. Both projects encourage the use of BFP and the SAFMC Release project provides an opportunity to gather information on descending device usage, a key research recommendation from recent SEDAR assessments. This partnership has allowed staff to leverage limited resources with both projects optimizing time and funding to increase the potential impact of both initiatives.

South Atlantic Reef Fish Extension/Communication Fellow

The South Atlantic Reef Fish Extension/Communication Fellowship is responsible for engaging in extension programming and communication projects that work to advance stakeholder understanding of snapper grouper issues and management, BFP, and advances in research related to snapper grouper species. The following outreach strategies are employed by the fellow:

- Tackle Shop Tours
 - Traveling to tackle shops, marinas, and fishing clubs to chat engage and inform stakeholders and distribute educational materials.
 - Developing a tackle shop database to help guide outreach efforts (i.e., which tackle shops cater to offshore anglers, have descending devices in stock, etc.)
 - Such tackle shops have and will continue to be revisited in the future to build relationships and further education.
- Fishing Seminars
 - Working with fishing community leaders and local businesses to hold seminars where staff can demonstrate BFP and provide information on the Citizen Science Program.
- Charter Trips
 - Take charter trips with outdoor writers and social media influencers in the South Atlantic region to demonstrate BFP and citizen science efforts and share how stakeholders can contribute to sustainable management and scientific data collection.
- Industry Events
 - Attending various fishing industry events, such as ICAST (International Convention of Allied Sportfishing Trades) to spread awareness of BFP, Citizen Science, and Council management.

Activities Completed in 2022:

- Tackle shops in the following areas were visited:

- Outer Banks North Carolina (Hatteras, Manteo, Kitty Hawk),
- Northern South Carolina (Myrtle Beach, Murrells Inlet, Georgetown),
- Central South Carolina (Charleston),
- Southern South Carolina (Beaufort, Hilton Head),
- Northern Georgia (Savannah),
- Southern Georgia (Darien, Brunswick),
- Florida Keys (Miami, Key Largo, Marathon, Key West).
- “Responsible and Effective Bottom Fishing” seminar with local charter captains, Mark Phelps, and Chuck Griffin, at Haddrell’s Point Tackle on 4/27 in Mt. Pleasant, South Carolina.
 - Approximately fifty people attended exhibiting interest in BFP and SAFMC Release,
 - BFP and SAFMC Release information provided as part of seminar and outreach materials distributed.
- Outreach at the Governor’s Cup Billfishing Series tournament in Georgetown, South Carolina.
 - Web analytics showed a large spike in traffic to the Council’s BFP webpage following this outreach effort.
- ICAST 2022
 - ICAST is the world’s largest sportfishing trade show held annually in Orlando, Florida.
 - Council 10 X 20’ educational exhibit focusing on BFP and SAFMC Release as part of the show’s Conservation Corner.
 - Unique opportunity to talk with leaders in the industry, make contacts, and further develop partnerships.
 - Encouraged attendees to carry descending devices and Council informational materials in their store.
- Charter trip with Good Times Sportfishing and local writers in Hatteras, North Carolina.
- Charter Guide Summit with SC Department of Natural Resources (Charleston, Murrells Inlet, Lemon Island, SC).
 - Provided information on BFP and SAFMC Release to charter captains as part of the summits conducted by SCDNR.

Upcoming Outreach Activities through 2022:

- Tackle shop outreach in southern North Carolina (Wilmington).
- Charter trip with Miss Judy Charters and local writers in Savannah, Georgia.
- Content creation trip to gather photo and video footage of descending device use and SAFMC Release for use in outreach materials.

SAFMC Release Project

SAFMC Release, a project developed through the Council’s Citizen Science Program, partners with recreational, for-hire, and commercial fishermen to collect information about their released shallow water grouper and red snapper using the free mobile app, SciFish. Data collected through the app includes fish length, depth caught, hook type, use of descending devices or venting, and occurrence of shark depredation. This information provides valuable insight into the

age and survivorship of released fish which addresses a SAFMC citizen science research priority and SEDAR research recommendations.

Current Education & Outreach Activities

Current SAFMC Release outreach activities are listed below. These activities are being led by the Citizen Science Project Coordinator (contractor) with the support and oversight of the Citizen Science Program Manager (full time staff member). Activities in italics were conducted in direct collaboration with the BFP campaign and were highlighted above. Communications with project participants (newsletters, social media, etc.) regularly highlight BFP messages.

- Partnerships with agencies in their outreach
 - Examples of partnerships:
 - NCDMF: Mailing sent to 10,000 licensed recreational saltwater anglers with information about the project; laminated flyers with QR code for SAFMC Release placed at approximately 100 boat ramps
 - SCDNR: *Presented at charter summits held in Charleston, Murrells Inlet, and Beaufort, SC*
- *Hosting of educational seminars about BFP and SAFMC Release*
- Attending industry events
 - *ICAST in July 2022*
- *Tackle shop visits throughout the region*
- *Charter trips for content creation*
- Regular email and phone communication with participants.
 - Thank you emails following submissions
 - Answering questions about the project
 - Follow-up emails with new participants approximately one month after they join the project
- Monthly newsletters for participants
- Weekly social media posts
- Annual data summaries, which are shared with participants

Descending Device Outreach Coordination Team

Organized by staff at the Florida Fish and Wildlife Conservation Commission (FWC), the Descending Device Outreach Coordination Team provides a venue for state agencies, federal agencies, and non-profits working on BFP outreach to share strategies and collaborate on initiatives. The Reef Fish Extension/Communication Fellow, Citizen Science Project Coordinator, and other Council staff participate as members of this team. During ICAST 2022, the Descending Device Outreach Coordination Team hosted a “Donuts and Descending” event that brought ICAST attendees to the Conservation Corner to learn about barotrauma in snapper grouper species and methods to improve survival of released fish, including BFP and use of descending devices. The event was well attended, and the Coordination Team is currently working on hosting a larger event during ICAST 2023.

IV. Proposed Expansion of Best Fishing Practices Outreach and Education

Goal: Increase the overall use of BFP, including descending devices, in the South Atlantic snapper grouper fishery by increasing stakeholder awareness of the need to improve survival of released fish and BFP regulations currently in place.

Overview: The Citizen Science Project Coordinator, who is leading SAFMC Release outreach efforts, is currently funded through the end of 2023. Funding for the Reef Fish Extension/Communication Fellowship is available through 2024. Current BFP outreach activities are limited by available funding and staff. To maintain and increase BFP outreach efforts, additional staff will be required. To maintain the SAFMC Release project's outreach and expand their capacity to implement new engagement strategies, the Citizen Science Project Coordinator position needs to be extended beyond 2023. **As such, an additional full-time best fishing practices outreach position and funds to extend the current Citizen Science Project Coordinator position are recommended. These positions are necessary to maintain the connections and relationships built with participants and stakeholders throughout the region.**

The BFP and SAFMC Release campaigns are focused on behavior change within the snapper grouper fishery. Fostering change within the fishery is a long-term goal that requires regular interaction with stakeholders over a significant period to achieve. These outreach initiatives are crucial to the development and maintenance of relationships with fishing communities. This work not only contributes to the continued use of BFP and the long-term retention of SAFMC Release users and increased data submission, but also provides the opportunity for regular, two-way communication with constituents. Staff and fishermen can discuss signs of barotrauma, descending device use, Council regulations related to BFP, Council activities, opportunities to get involved, and what fishermen are seeing on the water. It is important that the individuals conducting this engagement be long-term, full-time staff members with health benefits to avoid the loss of these connections at the end of short contract periods.

The chosen best fishing practices candidate will supplement the work currently being done by the Reef Fish Extension/Communication fellow, including organizing fishing seminars, attending industry events, and fishing tournament, but will also focus on reaching a broader group of snapper grouper stakeholders by creating a marketing and promotion strategy for BFP throughout the South Atlantic region.

As detailed in the above section, logging information on released fish through the SAFMC Release project is considered a best fishing practice. Therefore, expansion of BFP outreach extends to the Citizen Science Program. Expanding the outreach and engagement capabilities of the Citizen Science Program by funding an additional year of the Citizen Science Project Coordinator will allow staff to increase recruitment and retention efforts for the SAFMC Release project, further providing fishermen with the opportunity to gather data on released fish and on their descending device usage. These efforts will contribute to the data available to manage the snapper grouper fishery.

Best Fishing Practices Outreach Specialist Position Description:

Complement current Reef Fish Extension/Communication Fellow and Citizen Science Program efforts:

Current efforts by the Reef Fish Extension/Communication Fellow and Citizen Science Project Coordinator, as detailed above, are limited due to funding and available staff. To increase the reach and efficacy of this work, the BFP Outreach Specialist would support these efforts once funding ends for the Communications Fellow and Citizen Science Project Coordinator.

- **Organizing fishing seminars:** seminars have been valuable opportunities for education regarding BFP and SAFMC Release as well as relationship-building with members of the fishing community.
- **Attending fishing tournaments and other industry events:** while there are few reef fish tournaments, often snapper grouper anglers will participate in a wide variety of fishing tournaments.
 - Example tournaments:
 - [Governor's Cup](#) - South Carolina
 - [Carolina Sportsman](#) - lists monthly various species tournaments (King mackerel, Spanish mackerel, red drum etc.) in North Carolina
 - [Marlin Magazine](#) - lists monthly billfish tournaments in Florida
 - Example industry events:
 - [ICAST](#)
 - [ASA's Sportfishing Summit](#)
- **Additional mailings to potential SAFMC Release participants** about the project, as well as BFP, either solely by SAFMC or in partnership with other agencies performing outreach.
- **Additional personal communication with SAFMC Release participants** via phone and email. Most participants who submit data are fishermen with whom we have built a strong relationship, making this a critically important communication effort.
- More **tackle shop visits** throughout the Southeast region (both initial and repeat visits).
- Assist in organizing and conducting **content creation and media charter trips**.

New efforts to be led by the Best Fishing Practices Outreach Specialist:

- **Marketing and advertising**
 - Produce videos, ads, and physical materials such as, but not limited to, billboards, targeted social media, push notifications on various weather applications, others, focusing on various best fishing practice subjects.
 - General information about the South Atlantic Council, current issues in the snapper grouper fishery, and the importance of BFP
 - SAFMC Release (what is it, how to use it, and why to use it)
 - How to use a descending device
 - How to make your own descending device
 - Regulatory BFP requirements in the South Atlantic

- How to properly vent a fish
 - Best handling practices, non-target species avoidance, and other Council regulations pertaining to BFP
- Create an optional interactive outreach tool to test users on their knowledge of BFP. To make it engaging, ideas include adding short videos, pictures, and a game.
 - Housed on BFP webpage. Depending on the platform, it may be possible to gather information on what users get correct and incorrect.
 - Example questions:
 - “What signs of barotrauma are being exhibited by this gag grouper?”
 - “What best fishing practice is being done incorrectly in this video?”
 - “How much weight should be attached to a descending device?”
 - After playing a short video about SAFMC Release: “Would you like to help inform managers on what you are seeing on the water?”
- Create a “Best Fishing Practice Master Volunteer Program” (become a BFP MVP!) that trains volunteers to become experts in all things Best Fishing Practices and encourages them to train others in their fishing community.
 - In person workshops in the region to share best fishing practice information, learn from BFP MVPs on their thoughts on effectively sharing this information with their communities, and create a network of other attendees.
 - Target audiences:
 - Port samplers
 - Marine Resources Education Program (MREP) graduates
 - Federal for-hire permit holders
 - State and federal agencies (North Carolina Division of Marine Fisheries, South Carolina Department of Natural Resources, Georgia Department of Natural Resources, Florida Fish and Wildlife Conservation Commission, U.S. Coastguard, NOAA (National Oceanic and Atmospheric Administration) Office of Law Enforcement)
 - SAFMC Advisory Panel members
 - SAFMC Release Participants
 - Campaign by mailings, seminars, tackle shop outreach, advertisements, partnerships
 - BFP MVPs to receive a certificate once completed, giving attendees an opportunity to market their “MVP” status and encourage others to become a BFP MVP

New efforts to be led by the Citizen Science Project Coordinator:

- **Explore organizing periodic short fishing “tournaments” to facilitate discussions about BFP and increased SAFMC Release submissions.**
 - Such tournaments are envisioned to be virtual in nature. Potentially held in partnership with other agencies or companies, participants would be encouraged to log their releases within a given period but would not be attending an in-person event.
 - The tournament prizes and sampling design will be adjusted to encourage submission of the specific data needed. Such specificity will not only enhance the effectiveness of this effort but will also avoid an increase in the pressure placed on closed species.
- **Develop and implement additional points of contact with SAFMC Release participants**
 - Push notifications and/or text notifications
 - Additional email check-ins
 - Gathering and sharing participant testimonials
- **Establish a SAFMC Release participant recognition program**
 - Encourage long-term retention and continued release submissions by recognizing participants’ contributions in a more formalized manner (currently, we send thank you emails).
 - Such a program could feature those who excel in certain categories, such as:
 - The most fish logged
 - The most fish descended
 - The longest fish logged of a particular species
 - The shortest fish logged of a particular species
 - Participants and their achievements in the above categories could be featured in the SAFMC Release newsletter and highlighted on the Council’s social media.

The Best Fishing Practices Outreach Specialist and Citizen Science Project Coordinator would also attend various workshops, advisory panel, and Council meetings within the South Atlantic, as appropriate.

v. **Evaluation of Current and Future Outreach and Education Campaigns**

Evaluation of the outreach efforts proposed in this appendix will be key in ensuring that the goal of increasing the use of BFP in the South Atlantic snapper grouper fishery is achieved. Yet, it can be challenging for Council staff to complete this work due to time and funding constraints as well as policy constraints due to the Paperwork Reduction Act (PRA). However, in recent years, there has become increased interest in exploring stakeholder perception and usage of BFP, namely barotrauma mitigation tools like descending devices. Several survey-based studies have

been completed throughout the South Atlantic and Gulf of Mexico region (described below¹). However, they all ask slightly different questions, focus on different areas, or are not longitudinal in nature, making it challenging to determine changes in fishing behavior throughout the South Atlantic region.

To help aid the Council, researchers conducting work on BFP perceptions, outreach, and usage would be invited to a workshop to present their work and discuss how it may benefit the Council's BFP program. Specific goals and objectives will be developed as the workshop is organized, but broadly the purpose would be to:

- 1) Learn more about current research efforts underway in the South Atlantic region.
- 2) Discuss how past research efforts can be used to create a baseline for BFP use in the snapper grouper fishery.
- 3) How future research can be used to help determine the effectiveness of different BFP.
- 4) How future research can help quantify changes in fishermen behavior over time, as it relates to BFP usage.

Examples of recent BFP studies conducted in the South Atlantic and Gulf of Mexico regions:

Southeast Florida and South Carolina Anglers' Release Practices and Their Attitudes Toward Descending Devices (The Nature Conservancy)

- In 2020(?), the Nature Conservancy conducted a survey of anglers who fished in Southeast Florida or South Carolina for several species of fish that are included in the Fishery Management Plan (FMP) for the Snapper Grouper Fishery of the South Atlantic Region (Snapper Grouper FMP). The survey found that a slight majority of anglers had noticed signs of barotrauma and were familiar with the term. Additionally, most surveyed anglers in both states were familiar with descending devices. However, only a quarter to a third have used descending devices. The baseline data collected in this study can be compared to future surveys to examine trends in attitudes, behavior, and the effectiveness of outreach campaigns.

Awareness, Attitudes, Perceptions, and Use of Best Fishing Practices by Recreational Reef Anglers in the Gulf of Mexico (The Gulf States Marine Fisheries Commission)

- The purpose of this study was to gather baseline information on recreational angler behavior and knowledge of best fishing practices in the Gulf of Mexico. A follow-up study will be conducted in 2024 to measure changes in angler knowledge of best fishing practices. This initial survey found that anglers want to help release fish survive, however there is a lack of knowledge around descending devices and their benefits. The full report can be found here: <https://www.gsmfc.org/publications/GSMFC%20Number%20312.pdf>

Reef Fish Extension Program Surveys

- As part of the broader Reef Fish Extension Project, Sea Grant fisheries extension specialists and university scientists are conducting annual surveys of reef fish

¹ This is not an exhaustive list of research conducted in the southeast region on angler attitudes and behaviors relative to best fishing practices. The initiatives listed here include efforts to gather baseline information *and* to conduct future surveys to estimate changes in angler knowledge because of outreach efforts.

stakeholders to identify pressing research needs as well as stakeholder attitudes, perceptions, and beliefs regarding the management of snapper grouper species in the Gulf of Mexico and South Atlantic regions.

SAFMC Release

- Data collected through the SAFMC Release project, including use of descending devices, will be summarized, and considered for use in upcoming stock assessments and relevant management actions. Additionally, SAFMC Release has developed goals and objectives to help evaluate and make improvements to the project over time.