DRAFT

South Atlantic Black Seabass Ropeless (On-Demand) Gear Workshop Report
August 22-23, 2023

Image credit: Bryan Fluech

Prepared by
Bryan Fluech, UGA Marine Extension and Georgia Sea Grant
and Scott Baker, North Carolina Sea Grant

Marine Extension and Georgia Sea Grant
UNIVERSITY OF GEORGIA

Sea Grant

Sea Grant
NORTH CAROLINA

Workshop Summary


Image credit: Charles McMillan

On August 22-23, 2023, staff from UGA Marine Extension and Georgia Sea Grant and North Carolina Sea Grant organized and held a Ropeless (On-Demand) Fishing Gear Technology Workshop at the Fish Dock Bar and Grill in Townsend, GA. The primary objective of the workshop was to convene stakeholders involved with Southeast commercial black sea bass pot fishing, on-demand fishing gear research and manufacturing, fisheries management, and North Atlantic Right Whale (NARW) research and management to review and assesses the applicability of on-demand fishing gear technology in the south Atlantic commercial black sea bass pot fishery. A secondary objective was to foster a collaborative dialogue among invited participants to enhance future conversations and working relationships with on-demand gear technology and its application in the fishing sector. Twenty-three people (including four commercial black sea bass pot fishers from NC-FL, three of which have previously used on-demand gear) participated in the event which was organized around formal presentations and informal discussion and idea sharing. The workshop agenda can be found in Appendix I and a list of workshop participants is in Appendix II.

Day one of the workshop primarily consisted of four expert presentations that provided participants context on the history and status of south Atlantic NARW management, an overview of the South Atlantic Fishery Management Council rule making process as well as findings from the most recent black seabass stock assessment for the region. Participants were also given an introduction to ropeless gear technology (*also known as on-demand, gear or subsea buoy retrieval systems*) including a brief history of its use as well as general categories and components of gear types. Day two of the workshop began with a fifth presentation on the status of regional ropeless gear-black seabass pot research efforts lead by Sustainable Seas Technology. The presentation was followed by a discussion with black seabass industry members on their experiences using the gear and recommendations for future use. The workshop concluded with a general discussion among all participants on potential challenges and opportunities for making ropeless gear commercially feasible in the south Atlantic black seabass pot fishery as well as key messages that should be considered for implementing such changes.

The following report provides highlights and key messages generated from the workshop presentations and participant discussions. Links to workshop presentation PDFs are imbedded in the presentation titles, and following the meeting notes is the meeting agenda and a list of workshop participants with contact information.

Workshop Report

The first day of the workshop started around 1:10 PM. Bryan Fluech welcomed everyone, reiterated the goals and objectives of the workshop, and asked participants to introduce themselves. Following self-introductions, the workshop moved into a phase with several formal presentations to provide context and background information for day two discussions.

1. **History and Regulatory Framework of NAWR Protection in the South Atlantic**
   Kara Shervanick. Southeast Right Whale Coordinator, NOAA Fisheries Southeast Regional Office-Protected Resources Division

Presentation highlights:

- The North Atlantic Right Whale (NARW) population was growing until 2010 but has since declined as a result of population loss exceeding births.
- Beginning in 2017, elevated mortalities in North Atlantic right whales (*Eubalaena glacialis*) were documented in Canada and the United States and an Unusual Mortality Event (UME) was declared.
  - The whales impacted by the UME now include dead, seriously injured (any injury that will likely result in death), and sick individuals (sublethal injuries or illness).
  - As of Aug 2023, there were 115 animals documented in the UME, which represents over 30% of the population. Of that, 36 are mortalities which is notable as research demonstrates that only about 1/3 of right whale deaths are documented.
  - The primary causes associated with the UME are entanglements and vessel strikes.
- There are direct (entanglements and vessel strikes causing death or serious injury) and indirect (non-lethal injury from entanglements and vessel strikes that impacts health and future reproduction) drivers to population decline.
- Starting in 2018, the (Atlantic Large Whale Take Reduction Team) ALWTRT has been meeting to address entanglement risk throughout fixed gear fisheries on the U.S. East Coast.
- They initially focused on reducing risk in the lobster fishery in New England. In 2021, a final rule was issued that included a number of new measures but importantly for this workshop, it included new closures and modified to existing closures in order to allow on-demand gear to be used within the closures. However, an Exempted Fishing Permit (EFP) was still required in order to use non-traditional fishing gear under fishery regulations.
- Since 2021, the ALWTRT has been discussing recommendations related to gillnet fisheries and trap/pot fisheries in the Mid-Atlantic and Southeast. In December 2022, the team recommended to NMFS that the current SAFMC closures for Black Sea Bass be officially added to the Atlantic Large Whale Take Reduction Plan and acknowledged their benefit to right whales. This was supported as long as the closures were established in the same manner as those in the 2021 rule such that they were closed to vertical buoy lines which would allow the fishery to use on-demand gear within the closure.

- In 2017, under SAFMC Snapper/Grouper Regulatory Amendment 16, two seasonal closures (Dec-Mar and Nov/Apr) for black sea bass trap/pots were put into place to reduce risk to NARWs during calving season.
- Since 2020 Black Sea Bass (BSB) on-demand gear research has been conducted under a EFP from the SAFMC.
    - The initial EFP issued in 2020 allowed on-demand gear testing outside the closures and included a limited number of fishermen off GA and NC.
    - In 2022, given the success and retrieval rate of trials under the first EFP, a second EFP was issued that allowed on-demand gear testing within the closures and included fishermen and testing off all SE states (NC, SC, GA, FL). This EFP is set to expire in April 2025.
    - Without a current EFP, or SAMFC regulations that allow on-demand gear, further research would not be allowed.
- On-demand gear has many benefits for the fishermen. It allows fishermen access to areas currently closed in times in which the fish are more readily available closer to shore and market prices are generally higher. As a result, more economically feasible because more profit and less direct costs (fuel), in addition to safer because fishing closer to shore.
- On-demand gear is a win-win for the fishery and for whales as it allows access to a closed area while not increasing risk to right whales.
    - If/when timed devices are used, maintaining the fishery as a tended fishery will be important for minimizing additional risk.
- Making on-demand gear a reality consists of two parts 1) making on-demand gear an allowable gear under SAFMC regulations and 2) allowing that gear to be used in the closed areas.
    - This would not remove the closures, it would just allow fishermen who wish to fish in the closures to do so if they use on-demand gear. Fishermen who wish to use traditional gear would still be able to do so outside of the closures.

<u>Audience questions:</u>

Does the SE US get credit for using/experimenting with on-demand gear in the BSB fishery?

- While it is not credit, the ALWTRT acknowledged all the efforts already made in the Southeast to reduce fishery risk to right whales and did not recommend additional risk reduction items.

Have there been any confirmed entanglements with the SE US BSB fishery?

- A very small number of whales that have been entangled, have identifiable fishing gear. There was a single instance years ago where there was a strong suspicion of BSB entanglement as the gear was consistent with the BSB pot fishery.
- Comprehensive gear marking strategies have been discussed and were implemented around 2015 for the BSB fishery. Gear marking in the US SE is more prevalent than in other areas.

What is the industry's perspective on lost gear and gear marking?

- Hull responded that ever since gear tending has been required (regulations prevent leaving pots unattended in the south Atlantic) he has seen no issues.
- SERO PRD is discussing avenues to require lost gear reporting should gear be introduced in the closure. It was also mentioned lobster fishers in the Northeast wet store their gear in the water and lost gear reporting may be a better option in that type of setting.
- Cowdrey recalled that the 2017 closure was actually a deep water opening for NC fishers; the prior closure of 2012 has been in place a decade, so changes have not been urgent.

What exemptions would need to be used to make the new rules a reality?

- Additional measures will remain in place under the ALWTRT that like the requirement to return gear to shore at the end of the fishing trip, no lines between individuals' traps (trawl lines), etc. but that there are specific SAMFC regulations that would need to be changed to allow on-demand gear to be used in the fishery, and then regulations that would allow that gear (only) to be fished in the closures.

2. South Atlantic Fishery Management Council Overview and Policy Making Process

Christina Wiegand. Fishery Social Scientist, South Atlantic Fishery Management Council

Presentation highlights:

- The 1976 MSA, 1996 SFA, and the 2007 Reauthorization Act (introduced Annual Catch Limits and accountability measures) affect the process for considering ropeless gear in the South Atlantic Fishery Management Council (SAFMC) (one of 8 regional councils).
- BSB is a species also managed in Mid Atlantic Fishery Management Council (MAFMC) and Atlantic State Marine Fisheries Commission (ASMFC) depending on the location of harvest.
- At the SAFMC, BSB are managed through the Snapper Grouper fishery management plan which is the largest and most complex plan and contains 55+ species.
- New regulations often start with a "fishery need." For example, to make BSB on-deman gear an allowable gear, the simplified process might be as follows: Scoping (public input from anyone)>Council develops actions and alternatives>staff conducts analysis on the biological, economic, social, and administrative effects>Council selects preferred alternatives>Public hearing>Back to Council> Final approval then to NOAA for their regulatory process.

Audience questions:

Are there efficiencies to be gained?

- Wiegand responded that it depends on the issue and the framework procedures.
- Schmidtke thought that ropeless gear allowance could go through SAFMC framework process since it's simpler. Further, he said this process which allows 1-2 changes to the plan is the fastest possible and could be possible by mid-2025 (end of the current EFP for BSB ropeless gear research); If the changes get too complicated, can't really use framework amendment process.

- Collier responded that the SAFMC must complete a National Environmental Policy Act (NEPA) document as part of the amendment to the management plan. NEPA could slow things down because NARW is a protected species which can increase the significance threshold.

What is NEPA and how is that involved?

- Mehta explains that the simple purpose of National Environmental Policy Act (NEPA) is 'think before you leap'. In short, policy makers need to take a hard look and consider alternatives to any proposed management action (for example, the difference between using acoustic gear releases or timers to trigger ropeless gear). He further explained that it might be easier in our region because we do not allow trap trawls in the S. Atl in like in the northeast. Also, there are gradations of NEPA analyses. The Environmental Impact Statement (EIS) statement is the most complex; followed by the Environmental Assessment (EA), and finally a Categorical Exclusion (CE) such as an EFP which is in place now for gear testing. So, there are 3 types of NEPA documents. A whole team of people will decide what type of NEPA will be used.
  - *Full plan amendments have a Notice of Availability (NOA) which are published in the Federal Register and solicit a 60-day comment period from the public. Framework actions or Regulatory amendments do not have a NOA. All amendments have a proposed rule (15-45-day comment period) and a final rule (30-day cooling off period).*

Can we frontload the process by working on the Amendment and NEPA application now?

- Mehta responded that no, this is not possible given all the other ongoing NOAA activities , but that the SAFMC could initiate steps to get the ball rolling to some degree. Wiegand responded that meetings like this will make the process as efficient as possible.

Do we have a representative here at the workshop on the Atlantic Large Whale Take Reduction Team (ALWTRT)?

- Wiegand responded there are three ALWTRT team members were present at the workshop. Charlie Phillips is the ALWTRT representative for the SAFMC, Tom Pitchford is the ALWTRT representative for Florida, and Kara Shervanick is the non-voting ALWTRT representative for SERO.

Are all the rules for fisheries and protected species in one place, one organization?

- Implementing regulations for the ALWTRT are done under the authority of the Marine Mammal Protection Act. SAFMC fishery regulations are done under the authority of the Magnuson-Stevens Fishery Management and Conservation Act (MSA). Both NOAA Fisheries and SAFMC have a number of guides to assist in understanding the regulations under both entities.
- Mehta added that it is difficult to remove laws once they are in place – requesting changes without justification can lead to lawsuits. It was also added that you would likely not try to remove a closure but seek to make gear allowable in that closed area.

Does this talk of policy change affect existing roped gear in open areas?

- No, it would just allow fishermen who wish to fish in the closures to do so if they use on-demand gear. Fishermen who wish to use traditional gear would still be able to do so outside of the closures.

Would this on-demand gear change result in more fishing effort?

- Collier responded that there is currently reduced number of participants and a restriction on number of pots due to regulations implemented in 2012. Fishing in the winter in historic locations may result in higher efficiency of catch and reduced number of trips or trap sets.
- Cowdrey remarked that summertime fishing is much harder; there is more bycatch, but the upside now is that much of the bycatch is marketable. Summertime fish also command higher prices because wintertime prices are generally lower due to heavy landings in the Mid-Atlantic[1].

3. **Update on South Atlantic Black Sea Bass Stock Assessment; What's it Mean Moving Forward?** *(2nd half of the SAFMC overview presentation)*
Chip Collier, Deputy Science Director, South Atlantic Fishery Management Council

Presentation highlights:

- The latest BSB stock assessment (SEDAR 76) indicates the stock is Overfished, Overfishing occurring.
- The SAFMC Science and Statistical Committee (SSC) is working on catch level recommendations. The uncertainty cone shown in the figure 50 indicates most iterations of the model indicate overfishing is occurring and all indicated the stock is overfished. Fishing mortality rate is too high in 84% of runs. Fishery-independent survey data indicated that the population from '90-'19 was stable; increased in abundance from '10-'13 and decreased from '17-'21. The most recent years have been the lowest in the timeseries.
- Trap based video has been included since '10. Previous increases seen in the stock could be due to rebuilding. From 2010 to 2012, the fishery would often close before the winter season, historic time for the pot fishery.
- Low recruitment or overfishing could be the cause of recent declines in stock.
- MSA says that you might have to change reference points if there has been a regime shift (for example, biomass has shifted north due in part to climate change); Other big problem is fishing mortality. Recreational discard mortality alone is now higher than commercial removals? SAFMC must set a catch level less than set by the SSC. Once notified by NOAA that the stock is overfished, the SAFMC has 2 years to finalize amendment.

Audience questions:

When does the 2-year clock start?

- Mehta says the clock usually starts when NOAA Fisheries sends a notification letter re: BSB stock status to SAFMC. The process is delayed a little because the SSC is having difficulty with this assessment (possible regime shift). Mehta indicated that the clock would start sometime in early 2024.

Why are we seeing these recreational fishing and discard issues?

[1] *Statement still needs to be verified.*

- Collier responded that fishing effort is increasing, and discards are increasing. The Marine Recreational Information Program (MRIP) Fishing Effort Survey is seeing increased effort.

What are other things affecting BSB?

- Cowdrey responded that the temperature change is affecting BSB. Since Hurricane Fran there have been nearshore water quality issues off North Carolina. He further recalled that BSB will show up out of nowhere in the winter, all sizes, usually after periods of Nor'easters. There have been lots of northly winds this year and more fish have showed up from somewhere.
- Collier explained that scientists are trying to use models to see if fish are moving north or if the population as a whole is moving north, but this work is not yet finished. He further stated that there have been calls to redo BSB stock structure analyses.

Does BSB life history play a role in population changes seen recently?

- Cowdrey states that in the heart of the spawning season, more and more fish turn to males. Males seem to be not present in the catch after June / July.
- Young explained that he has fished BSB only 6 times in SC, using extensive records from a friend from the 1980's to the present. Areas south of Charleston, documented as being abundant with BSB no longer seem to hold fish – thus he no longer fishes south of Charleston.
- Hull stated that summer BSB in FL are basically gone. He thinks that recruitment is low and if recruitment does happen, natural mortality is high. He thinks that regime change is evident and should be included in the BSB stock assessment.

Why are the error bars so much smaller on the later years of the BSB stock assessment graph?

- *Collier responded that* low uncertainty is due to more age sampling and a more consistent sampling design. Collier further stated that the MAFMC stock is in much better shape and the center of abundance could be moving north. As a side note, if allocation is changed, a plan amendment, which takes more time, is needed.

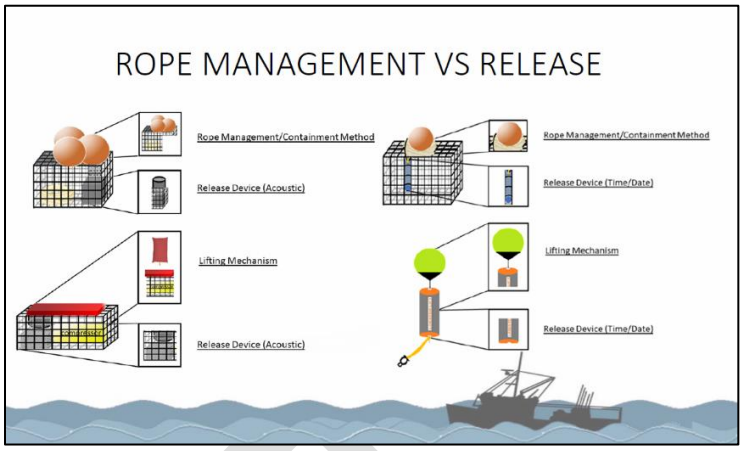
4. **An Introduction to Ropeless Gear Systems.** *(slides 1-24)*
Kim Sawicki. President, Sustainable Seas Technology

Presentation highlights:

- Gear goes by various names; Ropeless, On-Demand, Subsea Buoy Retrieval Systems; Gear can either completely eliminate line or stores it at depth so that if it is present, will only be in water column relatively short time (minutes) after being triggered/released for fishers to retrieve it.
- There are numerous subsea buoy retrieval systems being used/tested around the U.S and internationally. Timer release. Acoustic release. Etc. Acoustic gear is mostly asleep but stays awake to listen out for special code and hears answer back. Different systems (ranging vs non-ranging). Complicated systems not needed here yet in testing; more applicable in other regions.
- In terms of product testing, Sawicki breaks it down into two major components to test reliability; Testing the (1) device that performs release action and the (2) device that

enable/disable the lifting action. For example, Desert Star lists failures and it's usually the bags that fail not the releases.

- Sawicki presented a slideshow of the myriad of gear configurations that have been tested; Working towards achieving a gear footprint that is the same size as a typical pot.
- Virtual gear marking systems can mark gear for others to see (for example, other fishers or law enforcement, depending on data sharing). This can help avoid gear conflict.



Sustainable Seas Technology slide depicting the Rope Management/ Containment Method or Lifting Mechanism and Release Device (either Acoustic or Timer) of various Ropeless Gear Systems that have been tested. (1st row L-R) Edgetech, Sub Sea Sonics, (2nd row L-R) Smelts Lobster Raft, Lobsterlift

- Kim and gear manufacturers developed an app (built in conjunction with Whale Alert App) to show/share location data of deployed gear. Virtual Interoperable Gear Marking – Sustainable Seas Technology…goal is for interoperability between systems. Only shows presence of gear, not specifics of who's gear it is.

<u>Quick thoughts from fishers that have used BSB on-demand gear:</u>

- Hull stated that rope management on the vessel has greatly improved. He has gotten better and better with the gear. Only failures seen have been human (user/operator). The gear has to be simple. There have been ~3,000 deployments, with only 4 missing, 2 of which are unknown.
- Cowdrey stated the importance of grappling for lost gear and becoming familiar with the process and challenges of this. The devices must be armed and sometimes you forget. Need to mark exactly when and where you set your pot. Single pots fished most of the time. Several vendors said you will have problems eventually, so you need to be able to retrieve a pot without the line (grappling) based on its mark on the seafloor.

<u>Other comments and questions:</u>

- Sawicki states that the Cape Town octopus' fishery currently operates with on-demand gear (Desert Star); Also, one for rock lobster. The gear is not yet available as standard legal gear in the US. Only experimental at this stage. Gaining broader support.
- Sawicki stated she worked with some scientists to develop a statistical power analysis to determine the number of trials required to produce a success/failure rate.

- Some reports are that Northeast lobster fishers have less gear loss with on-demand systems in trials if they are using gear with a geolocation buoy and can find it if it moves in a storm or as a result of gear conflict.
- There was lot of initial discussion about the confidentiality of deployed gear locations and who would have access to that information – knowing that many people (fishers operating in the area and Law enforcement) might need access to it since surface identification is not available. Hull stated that pot location data sharing guidelines would be needed to loop in NOAA Office of Law Enforcement. Sawicki stated that her "untethered app" aggregates location data but does not share., but guidelines could be set up by fishery managers. Lots of questions around this location data. Range and visibility are big decision points.

4:56PM End of Day 1

8:35 AM Start of Day 2

Welcome/ Day 1 Recap Day 2 Overview

Fluech provided a recap of the discussions that took place on Day 1. He also shared with participants the "anticipated workshop outcomes" that attendees wrote down on sticky notes prior to the start of the workshop the day before. These expectations were shared with the participants and are included below:

Participant Expectations

Understand specific needs and operations of the BSB fishery	Better understanding of gear that works for fishermen, whales, managers and law enforcement
What improvements exists for using ropeless gear?	Develop strategies to streamline processes for making ropeless gear legal in the S. Atlantic
What is the fishery proposing for options to be considered?	Increase networking of groups involved in making ropeless gear allowable in the region (industry, management, NGO, research)
What incentives fishermen need to fishermen need to adopt on-demand gear	Do all pot fishermen want to use the ropeless gear?
Workshop report that helps move ropeless BSB forward	To learn about the issue
Descriptions of the +/- effects of on-demand gear (bio, economic, social, logistical etc.)	Open information exchange

To learn how BSB fishermen are using existing gear	Learn about what was done for SE BSG fishery and bring those lesson to other fisheries
To learn how the Council can help	Meet new people in the industry
To get a picture of the future of the BSB fishery	Collaboration between stakeholders
To network with others involved in ropeless gear	Support of cost to purchase on demand gear for fishermen
Potential implemtation, timeline and goals	How important is it to develop the end user market in unison with regulations
On the water enforcement; 'ropeless gear presents an enforcement challenge' Like to hear opinions on this	Networking with stakeholders to promote collaboration

5. Status of Ropeless Gear and Black Sea Bass Pot Research in the South Atlantic Region[2]
Kim Sawicki, Sustainable Seas Technology

Presentation highlights:

- Sawicki described her start with on-demand gear research in fisheries and showed workshop participants a ~15-minute summary video[3] that describes the work, the gears tested, and different trials to date associated with both EFPs.
- Sawicki's goal is to work towards a cost-effective analysis assuming >99% effectiveness. Cost effectiveness analysis of the ropeless gear (1 gear type) was recently done in Massachusetts, but in her opinion, this may not be accurate for the Southeast region. For example, the 30-mile rule in the SE is not effective as it's better and safer to fish nearshore. For her analyses, she is breaking up the gear into 3 categories (shown on presentation slides). Further, based on industry discussion, her goal is to get ropeless pots to be roughly 34-36 pounds each, plus an extra iron (for weight), plus roughly 30+ additional pounds of BSB. Factors that affect scoring for cost effectiveness analysis will be labor, construction, replacement parts, etc.

[2] *While not formally presented to the group due to time constraints and poor room lighting issues, slides 25-59 of Sawicki's presentation from day 1 also provides details about her current ropeless gear research in the South Atlantic*
[3] *Sawicki still needs to make final edits to the video that was shared with workshop participants before it can be shared with other audiences.*

Black Sea Bass Industry On-Demand Gear Panel Discussion
Captains Jimmy Hull, Charlie Phillips, Michael "Chops" Cowdrey, and Paul Young

Audience questions:

Do roped BSB pots move much once deployed? How do ropeless pots compare?

- Cowdrey noted that traditional roped BSB pots used to move once deployed because waves could catch the buoy and carry the pot; this does not occur with ropeless gear.

How much work and labor are needed to convert or build ropeless gear?

- Hull and Cowdrey remarked that the time and effort to convert roped pots to ropeless pots is significant. For example, Cowdrey remarked that it has taken many people weeks to convert pots to ropeless. Hull was able to convert 10 pots over the course of 2 long days (and into the night).

How does the acoustic gear work?

- Ryan Halonen of Sub Sea Sonics (a designer and manufacturer of on-demand equipment) gave a quick overview and demonstration of an acoustically controlled Sub Sea release mechanism (consisting of a control box with transducer attached and one or more separate acoustic receivers that would be mounted to pots). In short, the transducer sends a sound to the acoustic receiver that then turns an extra hook or latch 45 degrees to release gear (ex, allow a hatch to open). Customizations can be configured based on the complexity needed.

How much does the equipment cost*?*

- Hull and Halonen stated that in the configurations tested by BSB pot fishers, fishers would need a control box and transducer (~$1,350) and an acoustic receiver ($350) for each pot or multiple pot configuration.
- All parties familiar with the equipment recommended that a second control box and transducer be on hand for emergencies (transducers are the most fragile component); or expertise with GPS marking and grappling hooks to retrieve gear from the bottom.

How much would this equipment cost to equip the entire SA BSB pot fishery, if configured like this?

- NOAA representative and Marheffka commented that there are 32 endorsements that are allowed 35 traps (32 endorsements x 1 control boxes/transducers ($1,350) x 2)+ (32 endorsements x 35 traps x $350 acoustic receivers) = $478,400.
- NFWF grant funds might be available in the future but in general recent funding was geared towards the NE lobster fishery.

Does someone need to be in charge or oversee the rollout of ropeless gear?

- Sawicki remarked that NOAA Gear Harvesting Unit (ex, Nick Hopkins, Jeff Gearhart) might need to be closely involved or in charge. There may be a need to have gear marking practices in place and someone would need to oversee that.

- NOAA Fisheries has developed a draft strategy for developing on-demand fishing[4].
- Multiple laws govern commercial fishing in federal waters, including MSA, Atlantic Coastal Fisheries Cooperative Management Act, MMPA, ESA, and NEPA. When fishing in state waters, there are regulations from the states, regional fishery management councils (prescribed by MSA) and interstate commissions, as well as federal regulations under the MMPA and ESA. This includes regulations under the Atlantic Large Whale Take Reduction Plan (ALWTRP) under the MMPA.
  - When implementing these laws, there are various regulatory frameworks for specific fisheries and gear types. The broader implementation of on-demand fishing gear will require engagement with all of the above.

Given this on-demand gear that has been modified for use in the BSB fishery, and many potential ropeless gear configurations exist, what type of training by endorsement holders is preferred?

- *NOAA representative responded that he has led and participated in many* focused training efforts. He was interested to hear whether fishers would prefer to have dedicated individual to have trained them (ex, sign off on training or adjustments made). He noted that Glenn Salvador did training with every pound netter over a 2-year period.
  - Other examples include sea turtle bycatch reduction devices like TEDs, and HMS safe handling and release workshops.
- Cowdrey responded that with the EFP that they are operating under, fishers using the gear have to be trained to use the devices. They offered a weeklong training including three days in Ocean and two in classroom. They typically had 5 people on the boat along with 2 instructors to comply with the 8-pp life raft rule. "Training is important – until you lose a piece of gear, you won't get it. There is a certain anxiety when you pull up and don't see a buoy. There is anxiety when you push the release button as well" (wondering whether the float will come to the surface).

How many of the 32 endorsements would go fishing with ropeless gear?

- Cowdrey responded that if the fishery is profitable, he would expect most or all 32 to fish with the gear. Cowdrey further added that 32 was always the max. Sneads Ferry has always had a lot of permits and was once responsible for about 85% of the SA commercial catch, but many permits as stagnant. Many endorsements are held by people not vested in the fishery. There are many speculative holders and many that have been acquired by way of other SG permit acquisitions. An active fisher typically has $5,000-$6,000 invested in typical pots.
- Hull felt that training was definitely needed, but it might be better to train on 1 gear type as that would be simpler. Need to think about recouping gear costs in terms of BSB pounds caught. Converting from roped to ropeless seems (financially) feasible without support. Further, he agreed on the comments made by Cowdrey – "If they are invested, they will likely jump back in. It's simply a part of your fishing portfolio." Hull wants to move forward as he fears that BSB will be a dead discard fishery.

[4] Available at https://www.fisheries.noaa.gov/bulletin/draft-ropeless-roadmap-strategy-develop-demand-fishing-available-public-input

- Phillips remarked that when you start to have allowable gear, the SAFMC will says that "x y z" are allowable. Even if fishers prefer one gear option over another right now, we should have options simply because it looks better as far as optics. There needs to be training, but that depends on what the universe of the fishers looks like.
- To round the training discussion, Sawicki remarked that as part of their research and trials, she implemented core competency training, using a train the trainer model (fishers training fishers). Fishers are tested when they feel comfortable with the gear. As part of their training and testing, the trainers would mess up the software/hardware, so fishers had to troubleshoot the technology.
- Hilton remarked that depending on what happens with the stock assessment and being able to fish in the nearshore NARW closure area, people want to fish when it's most profitable. It will likely be during the traditional winter season (current NARW closure). Training is priceless.

What are managers' and fishers' preferences for gear configurations? Timers? Acoustic?

- NOAA Representative responded that on-demand systems where no lines exist at all are preferred. Acoustic or timed-release designs might be allowable.
- Hull responded that no rope at all or another trap that contains lift bag is too cumbersome for the small boat BSB fishery. We need something to be contained in a single pot. Acoustic device preferred because timer doesn't need to be armed (that is where I messed up once and deployed a pot without arming it). I don't think we should exclude timer as an option. I don't want to use the Galvanic release (cost ~$1 ea.). He concluded by describing acoustic as being lightweight and relatively affordable.
- Cowdrey responded that he did not want to force fishermen to use one gear or configuration because everyone fishes a bit differently. He has a favorite (because he has used many configurations) but believes that people should have options. Similar to Hull, he felt that the galvanic release is not what he would use, but he has a friend who could afford that. He felt that every system works but doesn't like timer.
- Sawicki remarked that gear loss in the BSB fishery has plummeted. She feels that we should not close the door on any new device as things are changing and improving.
- Belcher responded that choosing gear is different than shrimp TEDS and BRDS because those changes affected efficiency. This decision is more attuned to personal selection of life jackets as approved by the USCG. With this decision, we are not specifically dealing with the impacts of catch.
- Phillips remarked that this gear is still new. 'My boat is slow which dictates how you fish and where you fish. My situation is different that Cowdrey and Hull, which have smaller, faster boats. The whole fishery is going to change with this technique. Do we want to have cable between pots (trawl) to use less ropeless tech as way to reduce costs (fewer receivers)?'
- Young reminded folks that while he has not used the gear, it looks like it works and he would like to try it. People should have a couple of different options to choose from. For example, 'I might like the timers as fish each pot for about 90 minutes.'

How does gear choice or selecting multiple allowable gears affect rule making?

- Collier responded that making multiple gear options allowable is the most flexible for fishers but is confusing with regulations and leads to delays in rule development. The

requirement for training could be cumbersome as well. In terms of current numbers, there are <15 people in the last 3 years that have reported pots as the primary gear in logbooks. In short, need clarity to make rule making faster and simpler.

- If timers are allowed, then it is the expectation that gear remains tended. Can't introduce line to the closure area.
- Sawicki commented that timers might be good for folks who can see all their pots (same area), but as a research group, we have higher standards than that.
- Hull remarked that in the state of FL, the blue crab fishery has limited entry. To be a new participant, you have to be an apprentice to be approved to be in the fishery. Just an idea for the S. Atl. BSB pot fishery

Would a short trawl (one or more BSB pots connected by rope or cable) be acceptable to the regulators?

- SERO PRD's initial preference is for no trawls in the SE. If trawls were allowed, sinking groundline would likely need to be used, and this configuration would need to be tested.
- There is evidence that whales interact with lines on the bottom so that would likely be increasing risk in the closure which would not be feasible.
- Introducing trawls to this effort would further slow the process down.

Can folks' fish as they do now if ropeless doesn't happen?

- Multiple people responded, yes, everything will stay as it currently is.
  - Any effort to allow on-demand gear would be only for fishermen who wish to fish in the closures to do so. Fishermen who wish to use traditional gear would still be able to do so outside of the closures.

Is self-training an option if you bought gear outright?

- Young thought pot loss for new folks would be high.
- Cowdrey reiterates that there would need to be training / accountability because one person (perhaps a new entrant with limited experience) can ruin it for everyone.
- George reiterated that some form of training is needed.

Making Ropeless Gear A Reality in the South Atlantic: Facilitated Group Discussion:
Bryan Fluech and Scott Baker

This was a free-flowing discussion that discussed the opportunities and challenges of making ropeless gear use a reality in the South Atlantic once the expiration of the second EFP expires in April 2025.

<u>Discussion highlights:</u>

How are current roped gear requirements enforced?

- Cowdrey said that in NC, enforcement traditionally done with gear on the boat or at the dock. If on water action needed, this would be the first time. In all my time, this has never happened.

- Hull and Cowdrey both indicated that Law Enforcement in their area where not familiar with traditional roped BSB gear – LEO do not know how the traditional gear works. LE is an important part.
- Mehta responded that SERO SF does not have a Joint Enforcement Agreement with NC so that may be why enforcement does not occur on the water.

If area was accessible to ropeless gear, would fishers use/accept a VMS requirement? The question was asked because this would likely be a question to be brought up at any SAFMC deliberations.

- Cowdrey responded that he did not know.
- Sawicki responded that industry partners in her study used a similar, cheaper technology while fishing ropeless gear.
- Hull replied that if VMS can allow you to make money, then OK. He added that a better way is to mark the gear rather than marking the boat. There will be bad people everywhere. Whether or not to have VMS has to be a business decision. The requirement could knock more people out of the fishery.

What ropeless data from project trials is needed? Other research needed?

- Belcher replied that the potential introduction of trawls would be an issue. She is not looking to exclude anything on the table at the time, but we need to consider all feasible options.
- SAFMC and SERO would need to see the EFP project data sooner rather than later. Types of data needed would include, but might not be limited to, the success and failure rate of timers, acoustics, etc.
- Sawicki indicated that she is going to need SERO PRD's help identifying what specifically needs to be shared.
- Shervanick replied that reliability data is certainly needed.
- Sawicki indicated a desire to share project location data with the SAFMC instead of NMFS.
- Collier responded that in thinking through FMP development, things such as biological, socioeconomic factors, discard impacts must be discussed. What data are needed depends on the species. For example, one amendment was rejected because bycatch was not accounted for.
- Mehta responded that if you don't have a full dataset yet, and the data we need may not be available until after the end of the EFP (April 2025); one question becomes why do we need to proceed with this if it is only going to impact 15 people?
- Phillips responded to that statement because the fishery can become economically feasible.

How high a priority is it for fishing to be continuous between the end of EFP and start of amendment?

- Sawicki replied that a gap would be problematic.
- Cowdrey responded by describing the situation. 'We have been closed down for 11 years without an interaction; We are a very small fishery. Some of this technology already existed but was not available to us.' South Atlantic stock assessment looks bad, but most fishers believe that most fish moved north. Unfortunately, markets change during the closure and then other species (imports) bridge the gap.

- SERO PRD replied that it is possible that the current EFP may not be able to be extended; there are a lot of steps and things unknown. It's possible that there is enough data collected to proceed.
- Phillips responded that fishers adjusted this gear to work for BSB and for other fisheries. 'Tough once you lose your market; We need to open this up.'

It sounds like there is a high priority for no break between the end of the EFP and a potential new Amendment. If there is no break, what are potential roadblocks?

- Schmidtke replied that during the amendment process, efficiency may come into play, as the fishery could be more efficient.
- Cowdrey responded yes, that is true, because fishing happens when fish are there (winter months)
- Schmidtke replied that changing management to allow BSB to be caught during winter (when fishing is most efficient), when considered with the assessment results, makes things more complicated. The question that the SAFMC may consider is, "Should the council allow this higher efficiency gear to be used when the stock is in a bad situation?" Might need to consider options.
- Cowdrey responded that weather determines when fish will show up and fisheries managers need to choose one reality over another (ex, abundance is low, or fish have moved).

What are other things to consider here?

- Collier responded that the fishery independent trap survey operates May-Oct.
- Sawicki described fishing as seeing more shorts in the summer and basically none in the fall.
- Marheffka indicated that with new rulemaking, there is whole hook and line commercial component that must also be accounted for, not in the discussion here.

Are we reaching the Annual Catch Limit (ACL) for everyone (hook and line and pot)?

- Cowdrey responded that we are only getting about 30-40% of ACL because of closure. Would we not be allowed more fish?
- Collier replied that while harvested catch has been below the threshold, fish coming out of the water (dead discards) are exceeding sustainable levels. (Note: previous stock assessments used different estimates of recreational fishing.)
- Hull replied that fish show up in the winter from somewhere (resident fish plus transients). Pot fishery only in winter is needed because it's most efficient and we can actually reach it. When the new ACL comes, then we adjust; separated gears.

Should we prioritize a winter ropeless gear or a summer roped fishery?

- Cowdrey responded that it depends on the catch limit. There are a lot of variables including horrible market prices in the winter because fish moved to Northeast, and they catch with trawls and reduce price. Summer has lower catch but better prices.
- Hull replied that a winter ropeless fishery would be better for him.
- Cowdrey replied that if the BSB has a low catch limit, need roped gear to also fish in the summer; fiscal year.
- Belcher added that if you change the dynamic of the fishery, it cascades. If efficiency changes, that is a challenge. If the new gear expands the fishery, then that changes it for everyone else.

As far as next steps, what research data is needed?

- Sawicki responded that she has lots of data on many different variables but would rather give out pieces / segments needed to move forward rather than the entirety of her unpublished research.
- Belcher said that we will likely need size distribution data, catch data, effort data, etc.
- Mehta responded that reports from grants and EFPs might be enough to move forward. The first ended in 2020 and that short summary report is available. The second EFP is not yet completed and thus not available.

What data were required to be reported by EFP?

- Only short summaries were required but Shervanick indicated that first dataset from first EFP would be helpful to start.
- Wiegand replied that the SAFMC won't be able to tell what is really needed until the Council begins discussing what actions and alternatives they want to consider. Once that has been decided a team of SAFMC and NMFS staff will determine what data is need for analysis of the alternatives.
- Belcher responded that data share agreements are usually required for grants. There is usually a 2-year period to hold data so that scientists can publish.

What's the next step?

- There may be enough information and data to move forward now from the research that Sawicki and the fishermen have conducted this far. If we wait, we don't know what will happen in the future.
- 2 Potential options:
  - (1) Research continues through the end of the EFP research period, then there is some amount of time required to organizing and analyze the data, then the time it takes the SAMFC and SERO to conduct the lengthy and complicated regulatory processes discussed in Day 1 of the workshop which could be anywhere from 2-4 years with unknown conditions. That means that once the EFP expires it could be 2030 before on-demand gear is operational in the fishery.
  - (2) Begin regulatory processes now so there is not a lapse once the EFP expires. This will require the data from the research to move forward.
    - There were two options identified for moving forward. 1) Start with making on-demand gear an allowable gear under the FMP through possible a framework action. Then in the stock assessment amendment, address allowing on-demand gear in the closed areas. Or 2) do both the allowable gear and allowing it in the closures at one time. SAMFC felt that the latter would likely not be doable in a framework amendment and would need to be addressed in the big stock assessment amendment.
- McMillian replied that the proof of concept here is good, and we would like to move forward with the quickest option instead of delay. If delayed, let's not spin it up.
- Cowdrey thought that if the gear is safe and reliable, it should not affect stock assessment. We need to have the gear ready and legal because fishery dynamics change faster than assessment (the rebuilding).

- Marheffka states that managers will be faced with two issues: How to fish and where to fish. How to fish is easier as we can make it an allowable gear. The Where to Fish is much more challenging: A closed area made explicitly for NARW protection and opening that area is the problem – cascading affects must be considered.
- Belcher described a similar situation with Oculina bank closure. If reopens, what are the impacts? Difficult to make a decision because don't know the cascading impacts. You need to address all other interacting effects. Releasing the bigger area makes the management challenge much harder. The biological impacts need to be accounted for relative to all the other balances. For BSB, would be separate HL and pot fishery seasonality.
- Cowdrey reiterated that the hook and line component of the commercial fishery is only active in the summer as the gear is not really effective in the winter.
- Hull thinks an option is to make ropeless an allowable gear quickly (not for use in closed area) to allow for folks to get used to it. Folks would then have time to get more familiar with the gear while other things happen. Can also use it for marketing. Could use all year long in place of roped gear.

What will happen at the September SAFMC meeting?

- Schmidtke responded that he is giving a report to highlight 2 options for amendment development timing.
- Wiegand reiterated that for continuity – need to work this "need" into the SAFMC management workflow which is already busy.
- Marheffka thought that hypothetically, the SAFMC could direct staff to develop an amendment to allow ropeless gear, SG AP would then talk about it, then OLE AP would talk, then during Sept 2023-Mar 2024 timeframe, SAFMC would determine how much we want to do with this (considering everything else the SAFMC is working on).
- Schmidtke reminded folks that requesting changes with the closed area would be a separate amendment – separate from allowable gear which could happen before and at accelerated pace. Best Case Scenario – 1 year gap where ropeless is allowed but area closure not yet available to fishers after 2025 EFP expiration.

Is there any opposition to ropeless gear?

- No one present spoke in opposition to ropeless gear.
- Sawicki stated that ropeless is safe for whales but need to leave BSB to fishery managers.
- Fluech emphasized to group that regardless of the path taken from here (including the timeline of potentially making it a legal option), the purpose of holding the workshop in the first place was generally due to broad support of implementing the gear in the S. Atl from multiple stakeholder groups; generally thought to be a potential "win" for industry, management and whales.

~12:30 PM – Adjourn - End of Meeting

APPENDIX 1

South Atlantic Ropeless Gear Workshop Agenda

Aug 22-23, 2023

The Fish Dock Bar and Grill. 398 Sapelo Avenue. Townsend, GA 31331

Workshop Objectives

- **OBJECTIVE 1:** Convene stakeholders involved with NARW research and management, commercial black sea bass pot fishing, fisheries and protected species management and ropeless fishing gear research and manufacturing to review and assesses the applicability of ropeless fishing gear
  technology in the south Atlantic commercial black sea bass pot fishery
- **OBJECTIVE 2:** Foster collaborative dialogue among invited stakeholders to identify shared data needs, discuss regulatory processes and share information with resource managers that may inform policy decisions related to continued NARW protection and the legitimization of ropeless fishing gear as an allowable, legal gear type in the south Atlantic commercial black sea bass pot fishery closures.
- **OBJECTIVE 3:** Generate a workshop report from the input collected in objectives 1 and 2 to share with the stakeholders that outlines priorities and recommendations to make ropeless fishing gear a reality in the south Atlantic commercial black sea bass pot fishery.

DAY 1

1:30 PM	**Welcome; Overview; Introductions & Expectations** *Bryan Fluech, Associate Marine Extension Director, Georgia Sea Grant and Scott Baker. Marine Fisheries Specialist, North Carolina Sea Grant*
2:10	**History and Regulatory Framework of NAWR Protection in the South Atlantic** *Kara Shervanick. Southeast Right Whale Coordinator, NOAA Fisheries Southeast Regional Office-Protected Resources Division*
2:50	S**outh Atlantic Fishery Management Council Overview and Policy Making Process** *Christina Wiegand. Fishery Social Scientist, South Atlantic Fishery Management Council*
3:10	*BREAK*
3:25	**Update on South Atlantic Black Sea Bass Stock Assessment; What's it Mean Moving Forward?** *Chip Collier. Deputy Science Director, South Atlantic Fishery Management Council*

4:10	**An Introduction to Ropeless (On Demand) Gear Systems** *Kim Sawicki. President, Sustainable Seas Technology*
4:40	**Day 1 Wrap Up and Day 2 Preview** *Bryan Fluech and Scott Baker*
5:00 PM	**Day 1 Conclude**
6PM-8PM	**Dinner & Social at the Fish Dock**

Day 2

8:30 AM	**Welcome/ Day 1 Recap Day 2 Overview** *Bryan Fluech and Scott Baker*
8:45	**Status of Ropeless (*On Demand*) Gear and Black Sea Bass Pot Research in the South Atlantic Region** *Kim Sawicki*
9:30	**Black Sea Bass Industry-Ropeless Gear Panel Discussion** *Captains Jimmy Hull, Charlie Phillips, Michael "Chops" Cowdrey, and Paul Young*
10:30	Break
10:45	**Making Ropeless Gear A Reality in the South Atlantic: Facilitated Group Discussion**: *Bryan Fluech and Scott Baker*
11:45	**Pulling It All Together…Major Takeaways**
12:15 PM	**Workshop Recap and Final Remarks** *Bryan Fluech and Scott Baker*
12:30 PM	**Day 2 Conclude and Depart**

APPENDIX II

South Atlantic Ropeless Gear Workshop
Participants

Bryan Fluech	Marine Extension and Georgia Sea Grant	fluech@uga.edu
Scott Baker	North Carolina Sea Grant	bakers@uncw.edu
Jocelyn Juliano	South Carolina Sea Grant Consortium	Jocelyn.Juliano@scseagrant.org
Christina Weigand	South Atlantic Fishery Management Council	christina.wiegand@safmc.net
Chip Collier	South Atlantic Fishery Management Council	chip.collier@safmc.net
Mike Schmidtke	South Atlantic Fishery Management Council	Mike.schmidtke@safmc.net
Carolyn Belcher	Georgia Department of Natural Resources-Coastal Resources Division/ SAFMC Council Chair	carolyn.belcher@dnr.ga.gov
Kerry Marhefka	Abundant Seafood, SAFMC Council Member, & Vice-Chair, Snapper/Grouper Committee	KerryOMarhefka@gmail.com
Charlie Phillips	Phillips Seafood, Commercial fisherman (GA)	ga_capt@yahoo.com
Paul Young	Commercial fisherman (SC)	youngpaul9611@icloud.com
Jimmy Hull	Hull's Seafood, Commercial fisherman (FL)	hullsseafood@aol.com
Michael "Chops" Cowdrey	Commercial Fisherman (NC)	michaeldcowdrey@gmail.com
Kara Shervanick	NOAA Fisheries, Protected Species	kara.shervanick@noaa.gov
Clay George	NOAA Fisheries, Protected Species	clay.george@noaa.gov
David Hilton	NOAA Fisheries, Protected Species	coastalfishconcepts13@gmail.com
Nikhil Mehta	NOAA Fisheries, Sustainable Fisheries	nikhil.mehta@noaa.gov

Kim Sawicki	Sustainable Seas Technology	ksawicki@umassd.edu
Courtney Reich	The Georgia Conservancy	creich@georgiaconservancy.org
Lia Aleman	The Georgia Conservancy	laleman@georgiaconservancy.org
Charles McMillan	The Georgia Conservancy	CMcMillan@georgiaconservancy.org
Dee Allen	Marine Mammal Commission	DAllen@mmc.gov
Tom Pitchford	Florida Fish and Wildlife Conservation Commission	Tom.pitchford@myfwc.com
Ryan Halonen	Sub Sea Sonics	Ryan.halonen@subseasonics.com