

**SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL**  
**SOCIO-ECONOMIC PANEL OF THE SCIENTIFIC AND STATISTICAL**  
**COMMITTEE**

**Town and Country Inn**  
**Charleston, South Carolina**

**April 25-26, 2022**

**Transcript**

**Socio-Economic Panel**

Dr. Scott Crosson, Chair  
Dr. Andrew Ropicki  
Dr. Jennifer Sweeney-Tookes

David Dietz  
Adam Stemle  
Dr. John Whitehead

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**Attendees and Invited Participants**

Rick DeVictor

Shep Grimes

Additional attendees and invited participants attached.

The Socioeconomic Panel of the Scientific and Statistical Committee of the South Atlantic Fishery Management Council convened at the Town and Country Inn in Charleston, South Carolina on April 25, 2022, and was called to order by Dr. Scott Crosson.

## **INTRODUCTIONS**

DR. CROSSON: Good afternoon. This is the South Atlantic Council's Socioeconomic Panel commencing its meeting. It's good to see everybody in person again, and I guess this is -- We'll talk about the agenda in a minute, and I think, first, we're going to go around and identify ourselves, and I think we have at least one person that's calling in, and so we're going to make sure we do that as well, and so if we could start up there with Andrew.

DR. ROPICKI: Andrew Ropicki.

DR. WHITEHEAD: John Whitehead, Appalachian State University.

DR. SWEENEY-TOOKES: Jennifer Sweeney-Tookes, Georgia Southern University.

DR. CROSSON: Scott Crosson, NOAA's Southeast Fisheries Science Center.

MR. HADLEY: John Hadley, South Atlantic Council staff.

MS. WIEGAND: Christina Wiegand, South Atlantic Council staff.

DR. STEMLE: Adam Stemle, NOAA Southeast Regional Office.

DR. CROSSON: David Dietz, are you online right now? Can you identify yourself?

MR. DIETZ: Yes, I'm here. I'm David Dietz, and I'm with the Global Seafood Alliance, and I'm sorry that I couldn't be there in-person today, but thanks for having me online.

DR. CROSSON: Chris Dumas from UNC-W is unable to make it today, and I'm not sure if he's coming tomorrow morning, or if he will be in time for the SEP meeting or not, and then that's it, right? No Jason or Kurt?

MR. HADLEY: No, and that's the only other members we were expecting, or other member, I guess.

DR. CROSSON: Okay, and so, at this point, I guess we need to look over the agenda, and you all keep going back and forth, and is there something that you wanted to rearrange with the agenda for the SEP meeting? What was the order shift that you wanted to do, or you're fine with it?

MR. HADLEY: If it's okay with the Chair, we were thinking about maybe trying to hold the allocation decision tree discussion more so towards tomorrow, to allow Chris to be part of that discussion, and so potentially move the golden tilefish item up in the agenda before that, if that's okay with you.

DR. CROSSON: That's fine with me, and I'm assuming that the rest of the committee has no objection. At this point, I think we also need to approve the April 2021 minutes from the webinar last year, and so I'm sure that everybody has eagerly read those, and, without objection, I'm just going to go and certify that and sign-off on that for the committee. Then we have public comment, and does anybody have any public comment, online or elsewhere?

MS. WIEGAND: If there is anyone online who wants to make public comment, you can go ahead and do so by raising your hand, and it's that little turkey-looking button on the side of your webinar.

DR. CROSSON: Okay. Nobody has any comment at this point, and so I guess we'll turn it over for John and Christina to go over some recent amendments.

### **RECENT AND DEVELOPING SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL AMENDMENTS**

MS. WIEGAND: So the full document is in your briefing book, and it's Attachment 2, but we're going to roll over just a couple of key amendments that we think the SEP might have an interest in, the first being Snapper Grouper Amendment 48, which is the wreckfish ITQ modernization, and you guys have reviewed the wreckfish ITQ program review, if you can remember way back to -- I believe April of 2019 would have been the last time you saw that document, but that document has been fully approved by the council, and Amendment 48 looks at making some changes to the wreckfish program, based on recommendations that were made as a part of that review process.

Right now, the amendment currently includes things like moving away from that paper-based coupon system, and, if you will remember, those guys are still using paper coupons as a way to submit their landings, and moving that into an electronic program.

In association with that electronic program, we're looking at making a few changes to the fishing season and the spawning season closure, just to better align with how the current ITQ electronic system works, and we're looking at implementing cost recovery, which is mandated by the Magnuson-Stevens Act, and then, finally, we're looking at some changes to the wreckfish permit requirement, which the review found to be a little redundant, looking at changing allocations, possible modifications to offloading site and time requirements, and then possibly implementing a vessel monitoring system requirement for that fishery.

This amendment is still in the beginning stages. In March, the council approved the range of alternatives to be analyzed, and so, right now, staff is working on analysis for all of those actions, and it will go back in front of the council for public hearings this September, and then so and so forth, until it's approved.

The next amendment that might be of interest to the SEP is Snapper Grouper Amendment 52, and this is addressing golden tilefish and blueline tilefish, specifically responding to the most recent stock assessment for golden tilefish, and, additionally, it's going to also respond to some of the increased effort that MRIP has been showing for the recreational industry in the blueline tilefish fishery. Again, this amendment is also at the beginning stages, and the council reviewed scoping comments in March of 2022, and then we'll review this amendment again at their June meeting.

Then there is Regulatory Amendment 35, and I'm not going to spend too much time talking about this, because we're going to hear about it in much more detail later in the meeting, but it responds to the latest stock assessment for red snapper, and it also looks at different regulatory means of reducing release mortality in the snapper grouper fishery. Then I will let John talk about Amendment 46.

MR. HADLEY: All right, and so we have a few more for you on the update front. The council is -- Well, take a step back. In 2018, the council started an amendment to develop a private recreational permit, and potentially reporting to go along with that, and the council developed the amendment, or at least started to develop the amendment, approved it for scoping, but sort of froze work on the amendment itself.

In the meantime, the council developed MyFishCount, which the SEP has received updates on, and so sort of a proof-of-concept, from a reporting perspective, for the private recreational sector, and it also has -- It convened a private recreational permit and reporting workgroup, and that workgroup sort of met outside of the council's typical meeting schedule, and it was made up of some council members and sort of technical experts. That group met throughout 2021 and into early this year, 2022, and it came up with a set of recommendations for the council on how to move forward.

The council really had their first reboot of this at the March 2022 meeting, where it was kind of brought to, okay, here's where you left off in 2018 with developing this amendment, and the council gave some just general guidance on how they would like to move forward, potentially looking at developing a private recreational permit for the snapper grouper fishery specifically, and then potentially look at some reporting options to go along with that, and it could be all species, or it could be a specific subset, such as deepwater species, and so those kind of details are to be determined.

To go along with that, and one of the workgroup recommendation was to convene a technical advisory panel, and so the idea is that this is going to be an advisory panel made up of experts that will help them with development of the permit and making sure that that permit sort of gets the biggest bang for the buck and goes as far as it possibly can, either implementing reporting or integrating with MRIP and other sampling programs in the region, and so the council is going to appoint members to this advisory panel, sort of technical advisory panel, in June, with the idea that they will kick off after that, and, sort of from September onward, the council is going to be working on this amendment and working on a private recreational permit.

Then the next item is sort of a -- This is a management strategy evaluation for the snapper grouper fishery, and so the kind of concept here is a holistic approach to snapper grouper management, and particularly this is sort of a work in progress at the moment, and with the idea that it has been funded, and it has been outsourced to a third party, and it's not something that council staff is working on directly, but it's something that will be going on in the background for the next possibly year-and-a-half or two years, two years, and so we don't really have anything, you know, in-hand, so to speak, for this, but there may be some questions, some social and economic questions, related to this effort that will be coming back to the SEP, to potentially provide some guidance on, perhaps this fall.

It would be a very targeted, short meeting, if this is something that we can get on the books moving forward, but just kind of put it on your radar for now, that we may be coming back to the SEP to answer some questions and help develop some of the public input questions to focus on social and economic topics.

Then I think we have a couple more for you, and one is Dolphin Wahoo Amendment 10, and this is something -- This is a pretty major amendment that the council has been working on for several years, and this was the first amendment, I believe, that implemented the SSC's recommendations with the use of the new MRIP-calibrated numbers, with the Fishing Effort Survey, into catch level recommendations, and also associated allocations, and so those were a couple of the big-ticket items for this amendment, but, also, there were several other items that were addressed in this, like addressing deficiencies in the recreational accountability measures for dolphin and wahoo, and then several other sort of nuts-and-bolts management items, if you will, and so accommodating possession of dolphin and wahoo when trap, pot, or buoy gear is onboard a vessel, removal of the operator card requirement, and a reduction in the vessel limit for dolphin from sixty to fifty-four fish.

That is about it for the kind of standout items, and there is an attachment with the full list of the council activities, and, if you're so interested, it's Attachment 2, and I'm happy to answer anything that we just -- Answer questions on anything that we just went over or anything that's in the active amendments document.

DR. CROSSON: Does anybody have any questions?

MR. HADLEY: If there's anything that comes up -- This is more of kind of an update for the SEP, and just kind of to get your mind on what might be coming down the pipe here shortly on some of these items that the council has been working on, and so thank you.

DR. CROSSON: Before we move to the next item, I neglected to mention that -- Normally, when we have the SEP meetings, I assign some help with writing the different sections to different members of this committee, and so the people that I have -- Based off of what I think would be most efficient and their backgrounds, and also their interests. For the Citizen Science, if Jennifer could help with that section. For the field experiments, Zander's presentation, that would be John, because I know he's very interested in seeing that. For the allocation decision tool, Andrew. For best fishing practices, Adam, and, if Chris Dumas is here in time, then, for the red snapper discards, then Chris. Otherwise, we'll all have to help on that one, and I will take care of whatever we have with tilefish myself. I think, at this point, we can move to our next agenda item, which is the Citizen Science presentation.

### **CITIZEN SCIENCE PROGRAM UPDATE**

MS. BYRD: Good afternoon, everyone. For those of you guys that I don't know, I'm Julia Byrd, and I'm the Citizen Science Program Manager, and I'm excited to be with you guys in-person, and I don't think I've been at an SEP meeting in-person for years, and so this is great. What I am going to do is give you kind of an update on what's been happening in the Citizen Science Program and then hopefully get some input from you guys on some program evaluation work that we're hoping to do, and starting to do now, with a partner, Rick Bonney.

First, just kind of a quick update on some program activities, and, back in December, the council updated our citizen science research priorities, and so those priorities basically help guide the projects that we pursue and support developing, and so we update them every two years, and, to update them, we basically take ideas that come up at advisory panel meetings, or other council meetings, and then we have two citizen science advisory panels that provide input as well, and so, if you guys are interested in checking those out, they're up on the council's webpage, on the citizen science webpage, and then, also, I just wanted to quickly mention that we've been working on some outreach stuff.

If you're interested in keeping up with what's going on with the program, if you follow the council on social media, we do post once a week, on Fridays, and CitSciFri is what we call them, and then we've also been sending out updates through the council's kind of biweekly newsletter, the South Atlantic Bite, and then we've also been working to update kind of one of our citizen science brochures, which gives a little bit of an overview of the program and some of our projects.

Back in January, we submitted a grant proposal with partners. REEF, which is a non-profit citizen science organization that has very successfully worked with recreational divers over a number of years, and with SECOORA, and the grant proposal is really focused on trying to collect length information for some of our data-limited species, and the REEF folks have been developing an underwater stereo camera that a recreational diver could hold and take video, and then those videos could be analyzed to get kind of more length information. What this grant proposal would do is kind of develop that stereo camera tool and then test it out in the Florida Keys, and so we should be hearing back about that in the upcoming weeks.

Then the last kind of program-level activity that I wanted to mention, that I thought might be of interest, is we've been working with folks up at NOAA to put together a special issue in kind of AFS's *Fisheries Magazine* that is focused on citizen science and non-traditional data sources and how they can be better incorporated into kind of assessment and management, and so we submitted a variety of articles for review, back in February, and so we're waiting to hear back about those.

Then, next, I'm going to switch gears and update you guys on a couple of our projects, and the first one is the SAFMC Release project, and this is a project that works with commercial, for-hire, and recreational fishermen to collect data on released fish via an app called SciFish, and so it's really honing-in and trying to collect information on the length of released fish and then information that will help us better understand how many of those released fish survive, and so things like depth the fish was caught, whether a descending device or venting tool was used, whether there was shark predation upon release.

This project started in 2019, and we were trying to collect information on released scamp, and we learned that people don't release very many scamp grouper at all, and we expanded the project to include all of the ten shallow-water grouper species, last August, and then, just about ten days about, we expanded the project to include red snapper as well. Again, data collected are date, length, depth the fish was caught, and there's an optional place for location, and then descending device usage, venting tools, whether they were used, shark predation, and then we also collect some optional information on hook type and then where the fish was actually hooked, whether it was in the jaw, the eye, the body, that sort of thing that can help us understand how many of those released fish survive.

If you're interested in checking out information that's been submitted thus far, we put out a newsletter in January that we sent out to our participants, and that kind of summarizes the information that's been submitted to-date, and so you can click on that link and check it out, if you want to, and then we're really trying to do an upcoming outreach and recruitment push, and so we started kind of visiting some tackle shops, and, actually, later this week -- We're working really closely with Christina and Ashley Oliver, who is kind of the new Sea Grant best fishing practices intern, and doing a lot of our outreach, because there are a lot of overlapping -- There's a lot of messages that are overlapping between the Release project and the best fishing practices project.

On Wednesday night, we've partnered with a couple of charter captains in the area, as well as a local tackle shop, to do a seminar, and the captains will be talking about kind of bottom fishing tips and how to effectively bottom fish, and then Ashley will be giving some information on best fishing practices, and we'll be sharing some information on the Release project, and so, if that works well, we're hoping to do seminars like that kind of up and down the coast.

I also wanted to talk a little bit about this kind of SciFish app that we've developed, and I know, when you all met last spring, we kind of gave you an update on this, but the SciFish app kind of houses our Release project, but it's an app that is administered through the Atlantic Coastal Cooperative Statistics Program, and it's meant to house multiple kind of projects, and so there's actually a North Carolina Division of Marine Fisheries project that lives in SciFish right now as well, called Catch U Later, that collects information on released flounder species.

Kind of the long-term goal of SciFish is we want to have kind of a customizable app and an online project builder kind of interface, where someone can build kind of a project in the app, on the fly, by choosing from a set number of data fields, and so, last spring, when you guys were meeting, we were also hosting a series of kind of scoping meetings, to try to get a better idea of what kinds of projects would we want to be kind of developed in SciFish, and so what are those kind of key data gaps that we feel could be addressed through citizen science, and then kind of what data fields need to be included to address those gaps.

We included kind of the infographic that we put together that kind of summarizes some of our key findings. On it, you can see, on the fish, the blue and red fish, are kind of some of the key data gaps that we identified, kind of organized by topical area, and so, for instance, for released fish, getting more information on the length and survival of released fish could be helpful, and then kind of the bulleted list underneath kind of identifies some of those key data fields that you would need to address that particular data gap.

At the bottom of the infographic, there are key data fields that are necessarily for basically all of the data gaps, and so we're using this as a roadmap to figure out what data fields we need to include in SciFish, now that we're building kind of the project builder interface, and so we're hoping to have a prototype of the customizable app and project builder interface later this summer.

Then next, switching gears, is the FISHstory project, and I know we've provided an update for you guys on this a couple of times, and so this is the pilot project that's using kind of historic fishing photos to get kind of for-hire catch and length composition information kind of back in the 1940s, 1950s, and 1960s, and early 1970s, before kind of catch monitoring programs were in place.

There are three components to this project, actually kind of digitizing those historic photos and then to get the for-hire catch composition, and we have kind of -- We're training members of the public to help us kind of gather information from those photos, through the online Zooniverse crowdsourcing platform, and then the third component is developing a method to estimate length in the photos, using kind of the lumber where the fish are hanging as a scale, and so we developed that method, and we tested it on king mackerel.

Just a quick overview of kind of what's been done is we finished kind of data collection last year, and we had over 1,370 photos digitized and archived, and Rusty Hudson, who is the person who provided those photos, did all the heavy lifting there. He scanned in all of those photos and provided us a lot of kind of metadata on those. For the for-hire catch component in Zooniverse, we had over 2,100 volunteers that helped us identify and count the fish and people in the photos, and they made over 35,700 individual classifications.

For some of the photos, where there was a lot of volunteer disagreement, we had a validation team that reviewed those photos, and they reviewed 180 photos for us, and then, for the length component, we developed this method to measure king mackerel, and we think we're able to get within a couple of inches, based on some of our kind of analyses to get at precision and accuracy, and we measured king mackerel in the full photoset and have developed a length composition from that.

We just submitted the grant report not too long ago, and so we're developing outreach materials that summarize our findings. Right now, we're also really interested in trying to find additional funding sources, so we can continue this project and improve upon it, based on what we learned through our pilot, and then we're also really interested in trying to increase the archive of these historic photos that we have.

We feel like they're really valuable, and so we have been kind of exploring, or talking about, ideas amongst kind of ourselves on the staff about having kind of photo scanning opportunities, maybe at council meetings, or advisory panel meetings, as a way to try to gather some of those additional historic photos.

Then the last thing that I wanted to chat with you guys about is some of this initial program evaluation work that we're doing with Rick Bonney, and so Rick has been kind of our citizen science expert advisor, and I call him our Yoda, or our guru, on citizen science, and he's been kind of advising us, throughout the development of the program, and he's from the Cornell Lab or Ornithology, and he's one of the co-founders of eBird, which is probably one of the most successful citizen science projects kind of globally, and so, when we've been talking with Rick, one of the things that we want to make sure that we're doing with the program is evaluating it, so we make sure that it's doing what the council wants it to do.

One of the goals of the program is focused on kind of learning and trust issues with stakeholders, and so sometimes that can be more challenging to measure than some other kind of projects or collecting data specific to kind of its use in management, or that sort of thing, and so we really wanted to work on this initial program evaluation, to try to gather some baseline information about kind of knowledge and attitudes and engagement with kind of three main stakeholder groups of fishermen, scientists, and managers.



Rick put together this kind of three-stage plan for us to do, and the first stage is conducting interviews with a small group of folks to help us figure out what we should ask in a broader online survey, and so the second step is developing that survey and pre-testing it, and then the third step is actually implementing and analyzing that survey.

Where we are right now is Rick has done interviews with eighteen folks, six fishermen, six scientists, and six managers, and he finished those earlier this year, and he is in the process of writing up a report of what we learned and kind of key theme areas that came up through that process, and then we're just starting to begin to draft survey questions based on what we've learned through the interviews.

Unfortunately, we don't have draft survey questions for you guys to look at today, and the tentative kind of topics that we want to be asking questions about are kind of folks' experience with kind of the council, and citizen science in general, their familiarity with kind of the management process and the stock assessment process in our region, their knowledge of the Citizen Science Program and research priorities, and then a lot about kind of their perspectives on the data that are available in the South Atlantic and on their perspectives on kind of using citizen science data in kind of a management context.

Those are the general areas, and, again, unfortunately, we don't have draft survey questions for you guys to review today, but one of the things that I was interested in asking you guys is if you may be willing to review draft survey questions via email in the future, or if there are some of you who may be willing to volunteer to do that, and I think we could get a lot from your expertise in developing these questions, and we just don't have a polished-enough version that's quite ready for you all to review yet.

Then we were hoping to get some specific kind of feedback from you guys on some kind of, I guess, logistics for survey-distribution-type questions and, when considering these, the Citizen Science Program is operating under a very, very limited budget, and so, when trying to address these, that's something that is probably helpful to keep in mind, but we're really interested in knowing, from you guys' experience, are there certain things that we can do to help get a good response rate with an online survey, with kind of the limited resources we have, and is there a way that we can try to get participants from outside of the council's typical network of people, and so our advisory panels, kind of the people that we normally work with, and we would love to get some more outside perspectives and participation in the survey, and then, also, how long should we consider keeping a survey like this open, once it's available?

Those are the questions, specific questions, that we would love to get your feedback on, but, you know, I would be happy to address questions on any of the other things that I have kind of updated you guys on, or, if you have any other things that you think would be good for us to consider in this evaluation work, we would certainly be all ears.

DR. CROSSON: Okay. That was -- Well, first, I guess are there any questions generally for Julia, before we sort of tackle some of these? I am still looking at them.

MS. BYRD: I was just going to say that I know some of these are pretty broad, and so maybe a little bit hard to answer, and so I think, as we've been talking internally with staff on the second one, how do we get people from kind of outside our network, and we have advisory panel members,

and we have an email distribution list, but some of the things -- We were trying to think of kind of how do we connect to particularly fishermen, who are outside of our kind of network of people.

One thing that came up, kind of internally, was, you know, there is this Fish Rules app that so many people use to get fishing regulations, and they have been a wonderful partner, and they can sometimes help spread the word about different things, and so maybe we can go to them and see if they can help kind of share information via kind of a newsletter or blog or that sort of thing, and so that's one thing that we've kind of been tossing around inside, kind of internally among staff, but kind of any feedback you can give on this kind of stuff, even if it's sort of general, I think would be a big help.

DR. CROSSON: Are you working -- In terms of getting participants, to that second question, to what extent do you all work with the states in the South Atlantic? Are there state agencies any help on that?

MS. BYRD: We can certainly reach out to the state agencies. I know, for some of the survey work we did when we did our SciFish scoping meetings, we had some of the state agencies forward out information, and we did a kind of online questionnaire, as kind of the first step in that process, and so they were able to send some things out, and I know that North Carolina did, and we got a lot of North Carolina participation, and so I think trying to work with partners and figure out ways that they can help spread the word is probably a good thing to do, and it's something we've done not on kind of this specific project, but for other projects in the past.

DR. SWEENEY-TOOKES: You mentioned earlier, several slides back, that you were doing an event where you actually had fishermen leading an educational session, which I just have to say is amazing, and it's a great idea, and I wonder if that might be the answer to some of these questions, that you really need to have people who are well regarded within the industry promoting the use of the surveys and promoting other people taking them.

I think that might be the best way to get a fair number of results, and I'm chuckling, because I'm a bad person to give you advice on how to get lots of surveys returned, because, if I knew the answer to that, I would be very happy, and we have been spectacularly unsuccessful at getting online or mail surveys returned from commercial fishers in Georgia, and I don't even want to say the numbers out loud, but it's -- Good luck, and please let me know if you figure out a good way to do this.

MS. BYRD: I certainly know that can be a challenging thing, and, I mean, I guess we'll see how this goes, and we'll try different things and let you know kind of what sticks, but I think it's a great idea to kind of rely on some of the kind of fishermen that we've been working with for various things, to see if they might be willing to help spread the word.

DR. CROSSON: Jennifer undersells herself, because one thing that I have done before, in the U.S. Virgin Islands, is the fishermen -- The registration date for their commercial license is the same time every year, and so they tend to show up en masse, in person, and so I always make sure that, if I am speaking to the commercial fishermen, I'm down there on the opening day for getting commercial fisheries registration paperwork done, and it's overwhelming, and you need help doing it, and that's why Jennifer came down and helped me before, but it's like you can get a ton of surveys done if you are really methodological about it, and if there's any kind of event where,

because of registration or any other aspect of the business, that they tend to all congregate at once and hit the offices, be ready outside, and get permission from the state agency, but be ready outside, and you can get -- At least on the commercial side, you can get a lot of feedback that way. Go ahead.

DR. SWEENEY-TOOKES: You're right. The intercept surveys are the way to go, absolutely, and it's beautiful, in the Virgin Islands, that they have to do it all in person on two days, and they're just all there, and they're stuck, and so you're sort of a diversion while they wait. I have yet to encounter anything like that in the South Atlantic.

I wish, but, as you were saying that, then I start to think that, you know, as the season opens -- Right as shrimp opens in Georgia, there is usually a bunch of people who need to update their licenses, or they need whatever their licensing is, and that does have to be turned in in-person, but not necessarily by that individual, and so, if you were to really strategically target some docks, where you know a lot of boats are coming in and docking, and make nice with those folks, and I could probably point you to a few docks, that might be a good way to catch maybe a slightly larger sample, and nothing, unfortunately, like the whole slew of people in the VI, but that might be the closest you get.

DR. ROPICKI: I don't have anything specific to these questions, but I would -- I don't know if you're aware, but myself and Stuart Carlton had a contract with MRIP, just a couple of years ago, and we did a survey, and the final report is available through NOAA Fisheries, where we sent out surveys to 10,000 recreational anglers, in the Gulf all the way up through the New England Fishery Management Council, and we were looking at how they gather and share information and their opinions regarding fisheries management and data collection, and so we didn't look specifically at citizen science, but we do have some trust metrics and stuff in there.

I want to say that we have 700 responses, or so, from the South Atlantic region, and we put in a kicker, because we had some funding, and so we put a couple of dollars in, and the response rate was between 25 and 30 percent, I think, and so not great, but not terrible either, but I can share that with you, if you would like.

MS. BYRD: That would be great, and, actually, now that you say that, I think I was on a webinar hearing you present results for that, actually, and I think I remember now, and so I guess -- How long did you keep the survey open? I mean, I guess it was a mail survey, and so it's a little bit different, but --

DR. ROPICKI: It was a couple of years ago, and I will have to send you the report, and all of our numbers are in there, and I forget exactly what we did, and I can send the report.

MS. BYRD: Great. Thank you.

DR. SWEENEY-TOOKES: I would love to know how much you put in the envelopes, because maybe that was the kicker. We sent dollar bills, because the literature showed that would increase response rates, and several people sent them back to us with shredded surveys.

DR. ROPICKI: A few people didn't like that, and I want to say we put in \$2.00, and so it wasn't much, but, generally, that wasn't a -- I mean, there might have been one or two who sent them

back with angry notes on them and left the dollar bills in, but, you know, there's not a ton out there that you can look at in terms of what's a good response rate, I don't feel like, with recreational anglers, and so we were pretty happy with it. I mean, we were looking to get above 23 percent, and I think we did.

MS. BYRD: Does anyone else have any thoughts or feedback on any of these questions or anything kind of more broadly, any other kind of references or places that we might be able to look to help kind of inform us as we develop this survey and try to implement it?

DR. STEMLE: I would say keep the recreational survey open longer than you think it would be, because, when we ran rec surveys in the State of North Carolina, and even some that I did for Florida, we got responses like two to three weeks after the closing deadline, and, for some reason, they would always go in waves.

Now, I don't have any hard data to back this up on-hand right now, but usually we would get a good response in the very beginning of the survey, and then we would hit a lull in the middle of the survey, and we would send out reminder emails and reminder papers and all that jazz, and then, right when we closed the survey, I would get a crush of thirty or forty surveys in the mail, or something like that, or a bunch in the email, and so I would say, with the recreational surveys, leave them open a little bit longer, because, if you're somebody like me, and I get them from the State of Florida, and I put them in my office, and they sit there for a couple of weeks, and then I'm like, oh, I should have mailed that back.

With the commercial fishers, as Jennifer said, it's getting harder. The only success that I had was to go through the commercial fishing agencies, like the NC Catch and things like that, and gain their trust, and explain to them what the benefits of the survey were, what the benefit of collecting this information was, and try to get some of their local representation to back the survey and then make a presentation at their quarterly meetings, or something like that.

That helped us a little bit in North Carolina, but, again, it didn't help significantly, but we were seeing posts on social media of the survey two days after we had mailed it, with did you all get this survey, and a picture of it in the trash, and so it was essential for us -- We scrapped it the first round, and then we went back and talked with some of the local representing bodies of the commercial fishing industry, and then we explained to them why we were doing the survey and then made the presentations at that, to kind of help out before sending out just a cold mailer to them, because, if it's not a mandatory data collection at this point, it's getting harder and harder to get the information from them.

DR. SWEENEY-TOOKES: I think you mentioned this, Julia, but is it paper or email?

MS. BYRD: Online is what we're hoping for, which could be another barrier for commercial, the commercial sector.

DR. SWEENEY-TOOKES: I mean, in Georgia, they're still printing oyster labels on dot-matrix printers, in some cases, and so that will definitely reduce your response rate.

DR. WHITEHEAD: What online survey platform are you using?

MS. BYRD: Survey Monkey is what we were planning to use, and then I think -- I don't know if you guys have other suggestions, but that's what we have access to at the council.

DR. WHITEHEAD: I was just curious.

MS. BYRD: All right. I appreciate you all's feedback, and, if you have any kind of -- Well, I guess one more thing. When we draft questions, would anybody be willing to kind of look at the draft -- Okay. Great. Thank you. I saw a lot of heads nodding, and I don't know if that means the whole SEP or just the people -- The people in the room at least would be great, and I appreciate that, and I think it would be I think sometime early summer or late spring, is when we'll hopefully have something together.

DR. SWEENEY-TOOKES: I'm supposed to be taking notes, and so I wanted to get those names down for you.

MS. BYRD: Thank you. All right. I appreciate you all's time, and, if you have any other questions about this, or any of the other work we're doing, just grab me, and I will be here the rest of the day and some of tomorrow.

DR. CROSSON: Thank you. Up next, we have Zander Gordon will be doing a presentation.

### **USING FIELD EXPERIMENTS TO ASSESS ALTERNATIVE MECHANISMS FOR DISTRIBUTING FISH TO THE RECREATIONAL SECTOR**

DR. GORDON: Thanks, everybody, for having me. My name is Zander Gordon, and I work for ECS, supporting the Southeast Fisheries Science Center, and I'm going to talk about a policy proposal for a proposed field experiment that I've been working on for a while. The presentation is titled, "Using Field Experiments for Assessing Alternative Mechanisms for Distributing Fish to the Recreational Sector".

Starting with the motivation as I see it, one of them is the high discard rates for the recreational sector overall for the snapper grouper fishery, and particularly for the private sector, which is what this whole presentation is going to be focused on, and so the charter sector isn't really something that we're going to be thinking about here.

One reason, among others, for that would be differential timing of the existing regulations, and so, for example, grouper and red snapper opening at different times of the year for the South Atlantic, and then there is other species that co-occur with those that are open year-round, and there is a variety of things that could address that, and one of them would be a program like what I'm going to be talking about. Other options would be restricted or aligned seasons, like temporally, aligned seasons for those co-caught species, or area closures, but I am going to talk about something where, instead of regulations being set kind of anonymously, and so they're the same for everyone, doing it in a way where what you do today affects what you can do tomorrow and a way through a channel other than just --

Here is the broad strokes outline of what I'm talking about, and then I'm going to go through a few slides trying to make this a little more concrete, but one way to think about is giving people

an incentive for things that, right now, you're trying to either do purely voluntarily, and so the last presentation was talking about one of those, the MyFishCount getting kind of more detailed diary-style data from people, entirely voluntarily, and another way you could do it is do it mandatory, and make it a permit, and I think that was mentioned earlier, too.

Here, it would be kind of, I guess, a middle ground, where you're giving people an incentive to do it, and the incentive would be being allowed to retain a species, or a portfolio of species, outside of their regular season, and so, for instance, red snapper, I think, for the South Atlantic, we're down to a weekend, and so, instead, allowing people to retain that species at other times of the year, in exchange for you, you know, the data provision and monitoring requirements that you would need to actually make something like that workable, and, in particular, we do -- We've been thinking about this as using something like MyFishCount, or there's another one, FishVerify, that actually incorporates taking pictures of it for verification, and so something like that I think is probably what we envision being used. I think that also, hopefully, would reduce the costs to participants, that, instead of filling out a form, you can just take a picture, which, I mean, a lot of people do anyway.

Down at the bottom here, on this slide, I just have some caveats, which, if I didn't make this clear, and so a lot of the work on this so far had been in the context of the Gulf reef fishery, and so thinking about what this looks like for the snapper grouper fishery is very much a work in progress, and the Gulf there was an amendment a few years ago, where they kind of administratively retained quota for some of the ITQ species.

I don't know if there is anything comparable here, but that was one consideration for kind of how would you like fund a program like this, in terms of the quota needed to set aside, so that, if there's extra mortality from this program, it's not going over the catch limit, and I think I neglected to put a sub-bullet here, but one other thing would be that, if you could make the argument that you're going to reduce discard mortality for the people participating in this program, maybe you justify letting people harvest outside the regular season, on those grounds somehow, but I'm not really sure if that would take.

Here, I'm going to step through, in a couple of slides, like I said, just to make things more concrete as I say day pass, single or multispecies, and I guess that sounds straightforward, but maybe it's not, and so let's spend a few minutes stepping through and making that concrete.

Most of this diagram here is grayed-out. I'm starting, on the first slides, with the parts that are actually highlighted right now, don't represent the program that I'm talking about, and they just represent the status quo, and the status quo is there is a season for each species that starts on a certain day, and it ends on a certain day, and those little red dots that are highlighted there represent a trip, and, right now, the way you monitor the mortality during a season is that you randomly sample a subset of the trips, and you get data on them, and, like I mentioned, this applies to everyone, right, and so I've got just this jumble of adjectives on the left just representing everyone, all types of people in the fishery, and there's no keeping track of particular people or tailoring the kind of rules, based on the kind of person they are and the decisions they make, versus what I'm talking about, where you would have people actively reporting.

Now we've got these arrows, representing information, going straight to the agency, people actively reporting on what they're catching, again through some kind of app that they would be

expected to, you know log-in a trip report before they get back and dock, and then, in exchange for that, you're allowing them passes to retain the species, or a portfolio of species, and we'll talk about that toward the end, outside of the time that they are regularly able to.

Here, I'm kind of representing, on this slide, the application phase for a program like this, and so, if you were going to do a limited trial, and say you had like a hundred slots for participation in a pilot program like this, or 500 slots, or whatever you have, then this kind of represents a hypothesis that the people who would be interested in something like this are probably already the more avid -- You know, the more heavy users of the fishery.

Then, as the program proceeds, you have the status quo and this small-scale pilot program working in tandem, and so you would get this detailed diary-style data from a small sample of people who apply to be in the program, and it's voluntary, and you choose to be in the program, and then you're going to have to have a way of making sure that, you know, the people using these passes outside of the regular season -- That only the people who actually have those passes and participate in the program are doing that, which maybe raises some questions about how you do the monitoring.

Having briefly walked through what I mean by the day-pass program and out-of-season day-pass program on the a pilot scale, just a small, maybe a couple-of-hundred people program, you could ask the question of, well, if that goes well, and there is an interest in that, and there's an interest in more people participating in something like that, how could you go about expanding a program like that, and so I'm just going to briefly talk about kind of the issue with that.

One of the obvious ways would be to treat the data you get in the first year of the program as people's kind of catch histories, to make an analogy from the commercial sector, and then, in subsequent years, instead of just allocating people, you know, some set number of passes, one or two or something, just as this incentive to get them started in this reporting program, you could actually allow them to use these passes anytime.

Here, on the left, I'm using the same kind of diagram for year-one versus year-two, and you see, for year-one, on the left, I am still splitting up the season, versus the rest of the year, but, for year-two, I'm not, and so the idea being that, once you're kind of initiated and in the program, you could potentially think about people, you know, basically being able to set the season for themselves.

One of the issues, and perhaps a solution to it, with doing something like this, is you wouldn't want to say -- You wouldn't want to say, hey, however many fish you caught, or however many trips you went on last year, that's what you can do this year, and you can pick whenever you want to do it, because then you create a big incentive to put in more effort than they otherwise would, and you wouldn't expect their overall impact on the fishery to stay the same, and so one kind of ad hoc thing you could do to keep that from happening is just give the average number of trips for people who had participated in the program, and hopefully you avoid creating that incentive, but there's probably other ways of doing that as well.

To just briefly talk about what I think of as some of the benefits and the costs of a program like this, I've got it divided between how this affects a particular person, a particular trip, and then what the broader implications are for the management system. The obvious benefits to particular people would be increased flexibility in when they get to go, as well as potentially greater retention

of catch, if they're able to choose, you know, the times that they want to go, so that they aren't going out and say catching a bunch of red snapper in June, when they can't keep it.

The big cost, on an individual level, is what kind of hassle is this going to present to them, and are they going to want to keep on with something like this, and I think you would be pretty concerned about program attrition, obviously, in any kind of diary reporting and data collection, and that's why we don't have much of that kind of data to analyze.

Then, going to the level of the whole system, there is a benefit of more precisely measuring the removals, and, in particular, reducing the uncertainty surrounding the discard mortality for people who have participated in this, and, as I kind of mentioned very briefly at the beginning, there is obviously going to be some monitoring costs, in terms of, you know, how do you validate the information that you're getting from this, and so I will talk a little bit about measuring some of these benefits and costs, and then I will circle back around to some of the open issues.

One really direct measure of the benefits, whether people are actually taking advantage of this, would just be are they actually using these passes outside of when they would normally be allowed to retain the species. For costs, the fact that you're collecting the information electronically goes a long way towards that, and so you could look at how much time people are spending in these apps, if they're getting confused or having issues with the reporting system, and then, at the level of the whole system, again, I think, to really measure the benefits and costs, you definitely need some validation, whether that's dockside validation or what have you, but, provided that you have some validation like that, then you could look at the accuracy of these reporting rates, or how often they misreport.

Then just to close on some outstanding issues, the big one, to me, is which species to include for a multispecies program, and, in particular, this goes to what I have on the next bullet point of bottleneck problems or species where, if we keep the existing bag limit for some of the really lower one or two or three-bag-limit species, and we say, hey, you can have this pass, and you can go out, but, you know, you're still going to be subject to these existing low bag limits, then the pass might not really have a lot of value to people, if there are catching too many of these species that have the low bag limit, and then your trip is kind of over a little early.

Regarding the enforceability, or the monitoring, costs, as the red snapper state management in the Gulf has taken shape, over the, I guess, half-a-decade or so, each state has had different ways of approaching that. The ones who are closest to what I'm describing here, in terms of reporting requirements, is probably Mississippi, and they run a program that they call Tails 'n Scales, where, short of the photo that I mentioned, they are basically doing all of this, and so you're expected to register a trip ticket before you go out and, before you get back in, you're going to be expected to say how many red snapper did you catch and retain, and then, when you come back into dock, there is like, I think, ostensibly a one-in-ten chance or something that someone is going to be waiting there for you to do some dockside validation of the information that you had reported in through the app.

The sub-bullet here of the discard prohibition, and so perhaps I didn't clarify, but this doesn't matter for a single-species pass, but, in a -- You know, if you're covering a portfolio of species under a program like this, and you want to address discards, then one thing you might want to do is make sure that, you know, people aren't allowed to discard after a certain number of discards,



and, if that's so, if you want to do that, that's probably a lot more complicated, to think about how you want to validate that, versus, you know, just requiring validation on the retained catch, though I think, with sufficient creativity, there is probably a way to do that. Whether it would increase the cost to the participants beyond the point where it's viable is another question.

As I mentioned, I think program attrition is likely a big problem for a pilot program like this, and so we're hoping to start doing some focus groups sometime in the near future, showing them kind of a mock-up of the kind of app we're talking about and the constraints they would face with participating in a program like this and getting feedback on, you know, how people are predisposed towards it.

Of course, there is also, for something that would be really small-scale like this, there is the question of what's the best place to start, and I would think you would want this geographically targeted, and so, if you're going to have a hundred people, not a hundred people spread out along the entire South Atlantic coast, but probably picking a pretty small area to start with. All right, and that's it for the slides here.

I think one other thing that I didn't put here, but where I'm currently at right now, and what I think is a big question for this, is, you know, can you get the kind of co-catch rates for some of these co-occurring species, and how fixed is that, versus can you change that? Can people -- A program like this would give people a strong incentive to figure out how to target more specifically, and whether or not people are actually able to do that.

I think, if you look at kind of the current MRIP data, you see that there is probably some more specificity in targeting from the charter sector than from the private sector, and so you think there would be some leeway there, and that's probably next steps for me, at the moment, is thinking through how much more retained catch would people actually be able to have if they -- You know if they assume that they could actually target more specifically, and so, again, thanks everyone for having me, and I would love any comments or questions, et cetera.

DR. CROSSON: Are there questions from the committee? Dr. Whitehead.

DR. WHITEHEAD: The focus group starts soon, and what are you thinking for the pilot year? Is that next year, next season, next summer?

DR. GORDON: So we're in the process of trying to put together a focus group for the Gulf, and so specifically for kind of the Florida Panhandle, right now, and so I think we -- I was out last week, and so I guess, two weeks ago now, we finally got the recruitment list, the emails and addresses for the people who we're going to try and contact for the focus group, and then I think, later this week, we're going to meet again and try to figure out when we can put together -- We're going to start with just online focus groups, and so I think we're -- It's been a long time coming, but, yes, hopefully sometime in May or June or something.

As for this, as for the South Atlantic, no, we don't have any specific plans. I mean, we haven't requested the info that we would need to get that process started, and so just a little more background on me, and so I've been just under two years, a little over a year-and-a-half, under two years, at the SEFSC working on this, among other things, and the majority of that effort has been in the context of the Gulf reef fishery, and so I think I'm going to be working more with Scott, in

the coming weeks and months, on exactly what's needed, as far as -- It's definitely -- It's been intended that this would be a single-species program for the Gulf, and so like red grouper or red snapper, or maybe gag, but Scott has strongly impressed upon me that it would need to be multispecies, and it would need to specifically think about, you know, reducing discard mortality to be of use here, and so that's where we're at with that.

DR. WHITEHEAD: But the pilot year would be 2023?

DR. GORDON: Sure. Yes, let's say that.

DR. ROPICKI: A couple of quick thoughts. You know, you talk about with a pilot program, where you're trying to learn, and a problem of avoiding program attrition, and, at least for recreational anglers, I think you're dangling a pretty big carrot in front of them, and I don't think you're going to have attrition like you think, and, I mean, if you're giving them out-of-season fishing days, they're going to be onboard.

One thing that I would say too is, somewhere in the middle of this, it talked about logbook-style reporting. If you're going to be app-based, I would go way past that. I mean, I would -- I think Scott is right that it needs to be multispecies-based, but I want them to tell me what day they're going, and I want to -- I want them to tell me, before they go, what their initial targeting species is, what are they going after, and, every time they catch something, I want them to log it and tell me, and whether they kept it or put it back.

You talk about these bottleneck problems, and those are really information points. What do they do when they hit those bottlenecks? I mean, that's not a problem, and that's, you know, a great way to gather information on their behavioral patterns, I feel like. Do they keep fishing in that same spot, just to catch fish for fun, or do they move on to a different species and a different location? Are there discards, due to size or mistargeting of species? I just think, when you do roll out the pilot on this, I wouldn't worry about overburdening them with questions, and I would get as much data as I possibly could. I would have them -- That whole day, they would be filling out stuff on this app.

DR. GORDON: Thanks. Those are good points. I'm not sure if I was sufficiently clear, and so that middle bullet point, saying discard prohibitions, I'm not sure if I was sufficiently clear about that, but -- Maybe I just haven't looked at the data that's available at like a fine enough level of aggregation, but what I have looked at is just all of the MRIP private rec catch logs, from the access point surveys, in the last like four years, but excluding the pandemic, because there's like weird imputation things going on there.

If you think about what's the expected catch of a certain species, given that the species was caught on that trip, and that's one way to summarize these co-catch patterns, for red snapper in particular, it's like over one, for say like -- I mean, especially for some of the more like rarer-event species, like a snowy grouper or something, and, if you look at it, it's like -- You know, the diagonal elements there are like one for snowy grouper, and like people don't catch multiple of them, but then it will be like two. Like, if you went out on a trip, and you caught snowy grouper, and you caught like two red snapper, and so isn't the bag limit for red snapper one right now in the South Atlantic, per person?

If there is more people on the trip, then that, to some degree, that gives people a little more wiggle room, because, if I can catch two red snapper, I can say you caught it and no one is going to know, but, if it's just me, and even if there's four of us -- I mean, still, you know, and we say that you can't discard them, that would effectively mean that, once you catch four red snapper that are over the size limit, then you're done, and so that's why I say that you would be giving people strong incentive to, you know, improve the specificity of their targeting behavior, but also why, if they can't do that, based on what you see in the existing MRIP data, it just seems like people -- The value of it might be limited.

Now, that's like -- I guess, in terms of tailoring a day-pass program to address discards, like completely disallowing them within the program from discarding, is like the most extreme option, and there's probably ways, although I haven't really thought of a specific way, but to like relax that, while still addressing that, hey, you're going to participate in this program, and you're going to be providing us this more detailed data, and there's a strong incentive for you, but, also, we're trying to cut down on discards.

DR. ROPICKI: I was just thinking, depending on the size of the pilot -- I mean, that would be something for longer-term. If you actually implement this going forward, then you have -- You see whether it's a value to put in that, once you catch four that are legal-sized, you're leaving, because, I mean, they could just keep fishing for fun, under certain regulations, but they just can't keep them, right, and so you want to know that. You want to know what they're doing, and I think you would learn that through the pilot.

Then, if you see that that's a big issue, and that's where your discard mortality is coming from, then, in a final version of this, you go about saying, okay, once you -- You know, we're going to open it up, or I should say that, but we're going to come up with this management scheme where you can catch X number of these different species, but, once you catch them, you're done, and maybe that's what the data shows you.

DR. GORDON: Yes.

DR. CROSSON: I have spoken to Zander plenty, and so, John, if you have more questions. Do you all -- While he's taking notes, are any of you aware -- I haven't done the lit search myself yet, but, for recreational fisheries, anywhere in the world, examples of required retention for recreational species, similar to the situation which we discussed, where you're done. You pulled in three of whatever, and now you need to home and stop basically discarding fish.

DR. WHITEHEAD: I have a couple of questions about the title of the item, the agenda item, and is it a field experiment, or is it just, in the sense of the word that's being used now, is there a control group that you can compare to?

DR. GORDON: That is something that I was, in the beginning, dead set on, but a control group here would be a group of people who bear all the costs of the data reporting, with none of the incentive, or, I mean, that's initially how I thought of it. I mean, if they're going to be in the study, they're bearing the costs of the reporting, and one of the things that I thought of was maybe you announce this program, and, by the way, I didn't mention like initial allocation, but I'm kind of assuming that we're going to be doing a lottery here, I mean, on the presumption that you have more applicants than slots, and just doing a lottery.

I had thought that one way that you could get a control group, if you were, you know, set on having one, would be you announce the program, and you say what you're doing, and you say to people directly, you know, however many of you apply, a hundred of you will get to be in the program and another hundred of you are going to be expected to do all of the reporting, but just, you know, participate in the fishery how you normally would, and not this program, but still doing the reporting.

I guess Andrew's view, and you seem to agree, is that there's enough of a carrot here, and, I mean, maybe with a 50 percent chance of not getting it, people would still be willing to bind themselves to the mast and say I'm doing it, and maybe not, and I'm not sure, and that's probably a good kind of question for our focus groups, but that was one way that I thought to actually have an actual control group, but my sense, at the moment, is probably not.

DR. WHITEHEAD: If the control group could be in the lottery for next year, along with the people who do a good job with the logbook -- You know, if they did a good job with the logbook, then you could say, well, you have a good chance of getting one of these day-passes next year, and then you might get participation.

DR. GORDON: Yes.

DR. SWEENEY-TOOKES: Or make them the waiting list for any attrition that you do have.

DR. GORDON: Yes. Of course, with a control group, I mean, part of the question is what are you trying to measure, what kind of like treatment effect, and like what's the thing of interest, and I'm not entirely sure here like what's the most important thing to look at the difference between people who are allowed to, you know, go when they want to, versus people participating in the status quo. Maybe something about the targeting behavior? Are they able -- Conditional on, you know, you caught a certain species of grouper, and are the people participating in this program able to reduce the expected number of red or vermilion snapper or whatever else that they're catching incidentally with that, and I guess that could maybe be part of it, but I'm not entirely sure like what are the most important things to try and measure the difference between a treatment and a control group here.

DR. WHITEHEAD: Listening to the discussion of the benefits, I think, instead of the measure of people, if people use the day-pass -- I think they will use the day-pass, if they bother to enter the lottery and they're excited about getting one of these things, but just the number of people who sign-up for the lottery, versus the -- I mean, you've created a scarce good, and a bunch of people sign-up for it, relative to the number of people who you say this is happening, and then you have an estimate of just demand.

I might need some help with the terminology here, and so a discard, a recreational discard, is basically catch-and-release, and is that correct? So there's a difference in the value of a caught-and-released fish versus a caught-and-kept fish, and there's tons of literature on that, and so, in terms of estimating benefits, you can just use benefit transfer to get a rough number, and then, if you have -- If you're collecting all these data, and you collect information so that you can estimate a demand model, and, if you have this experimental group and a control group, you can compare those within the demand model and see if there are estimable benefits.

If you only have the experimental group, and, for some reason, institutional reason, you can't have a control group, you could estimate a demand model and simulate what happens if the target species are out of season, all of a sudden, and they have to release those fish.

DR. GORDON: I am not quite sure that I follow you on the benefit transfer part, although benefit transfer is also just entirely out of my wheelhouse.

DR. WHITEHEAD: We'll include it in our little report. Another question about the title, and it says, "Assess Alternative Mechanisms for Distributing Fish to the Recreational Sector".

DR. GORDON: Yes.

DR. WHITEHEAD: Does that just refer to the lottery, and so the day-pass, or is there some -- Is it, in the future, aligning seasons, or is there some other alternative mechanism that's in the back of someone's mind here?

DR. GORDON: When I say, "mechanism", I guess the current mechanism is really simple for deciding someone's bag limit, given the current regulations and what they've done in the fishery previously, which is -- I mean, it doesn't depend at all on what they're done in the fishery previously, and it's just set -- It's the same for everyone, and so, you know, on April 1, or May 1, whatever it is, everyone starts being allowed to retain two, or however many it is, of these grouper species, and it's the same for everyone, versus this, and the mechanism here is, you know, on any given day, here is your bag limits for the portfolio of species covered under this pass, and you can do that any day until you've used up the passes, and, I mean, that's what I mean.

Then, "distributing", I might be using like a slightly non-standard terminology there for distributing, but I just wanted to very, very -- My first instinct was to say "allocating", right, because, I mean, in the mechanism design literature, normally we think of a mechanism allocating some scarce resource, but I really wanted to avoid confusion with the fisheries terminology of allocation between commercial and recreational sectors, and so I used "distributing" instead of "allocation" there, just to avoid that confusion, because it got to a point where I was repeatedly getting comments about why I didn't see some formula for determining rec and commercial allocation shares, and so I just tried to avoid the use of the term "allocating".

DR. WHITEHEAD: Thank you.

DR. GORDON: Thanks.

DR. CROSSON: John, whatever you put in there about benefits transfer, mention OMB Circular A4, which is sort of the rules for us.

MS. WIEGAND: I'm curious, and my assumption is sort of that, any direction this project moves forward with the Gulf, you would have to work somewhat in tandem with the Gulf Council, and I don't know -- This might be sort of a premature question, and I don't know if you've presented sort of this broad idea to them, and, if you have, I would just be sort of curious as to the response you got from the council members for working a pilot system like this.

DR. GORDON: We did that last fall, late summer or early fall, and like September or something, and we had a presentation to the Gulf SSC, and it kind of varied by state, for some of the state representatives, how much interest there was, and I think we ultimately ended up having a follow-up conversation with Louisiana, who, next to Mississippi, kind of, under their state red snapper management, also has one of the more kind of intensive data collections for that state management.

The two economists on the Gulf SSC were very interested as well, but, other than that follow-up conversation with some of the state people from Louisiana -- Since then, or, well, to give you some more background on the focus group, I mean, that's how long I've been working on trying to put that together, is basically since September or October, whenever I did that presentation to the Gulf SSC, because everyone kind of agreed that that was probably the most crucial thing, was to start actually, you know, sitting down with a group of five, or however many people who would actually be interested in something like this, and then getting their feedback.

DR. CROSSON: I absolutely encourage council staff to be asking questions on this. Economists love to talk about this stuff, but let's hear from practical people.

DR. SCHMIDTKE: I'm the Snapper Grouper FMP lead, and I'm fresh off of a Snapper Grouper AP meeting, and so I kind of have a lot of interest and questions, and I'm not going to put all of them out here, but there were just a couple that I wanted to throw out.

You mentioned, earlier in the presentation, kind of where this -- Where the fish would come from that would be caught and would be included in this type of program, and you mentioned kind of like when there are increases to the ACL, and I know, specifically, when thinking of South Atlantic snapper grouper species, those are a bit few and far between, and, right now, we're amidst the issue of converting the recreational data from CHTS, or MRFSS, depending on the species that you're looking at, to FES. Being able to interpret an actual increase in the number of fish is a bit more difficult right now, and so how would this type of program affect the recreational ACLs for species like that, that would be included?

DR. GORDON: That bullet point, towards the start of the presentation, potentially kind of funding this -- That was a very specific question about the Gulf Great Red Snapper Count, and so as the whole discussion with that was evolving over the last year, and, you know, there was pending, under some of the management alternatives that they were discussing for Gulf red snapper -- Some of them were like maybe we could double the ACL, or triple it, and who knows, right, because they got the results, and they were like, oh, the absolute abundance is five-times what we thought it was or something, and so that's my bad, and I probably should have taken that bullet, sub-bullet, point out of this one, because I'm aware that there aren't any big pending changes like that for the South Atlantic, and so that comment probably wasn't super applicable here.

DR. SCHMIDTKE: I guess, in the case of if this were to come and be used and piloted in the South Atlantic, how would, for lack of a better term, the research set-aside, or the portion of fish that would be allotted to this program -- Would that potentially be coming out of the ACL, because I imagine the species that this would target, that are highly affected by discards, are in a place right now where they're operating on fairly limited recreational ACLs, and very limited time periods, and there would be a lot of sensitivity towards any of that amount being included outside of the fishery that's open and accessible for everyone, and so, I guess, how do you envision potentially approaching that, and, if there's no answer right now, that's fine, but it's a question to ponder, is

how would you approach having that go through and having that be something that the fishery buys into?

DR. GORDON: I am not totally sure, and I get your question, but it seems related to something that I very offhandedly said at that same section, which was -- So, I mean, just to take red snapper as a concrete example, according to the MRIP data at least, for recent years, it's literally like 90 percent of catch is discarded, either alive or dead, and so, even under -- Even under really optimistic assumptions about how well the discard mortality reduction efforts are going, even like if you say we think that 90 percent -- Because of the descending devices and whatever else, we think like 90 percent of those released fish are surviving, then it's still the case that half of the mortality is discard mortality, right, and is that more or less -- Like even under really optimistic assumptions about the discard mortality, because that's one of the things that has kind of been ongoing, in the past half-decade or so, right, is the promotion of these ways to reduce the discard mortality and trying to get people to voluntarily do that?

If that's the case, if even under like the most optimistic assumptions, half the mortality is coming from discards, then what I was saying is could you try to justify letting people do this, participate in the program like this, saying, if someone right now is going out there and going offshore for the three days, or whatever it is, that the season is currently open for red snapper, and retaining their one-fish on those three days, and that's three, but then that person is also going out all other times of the year, around that time, and they're running into them and discarding them, and then, if you give someone, you know, six passes to retain the fish, but you're not allowing them to discard it at all, then the expected mortality from that person is staying constant.

That's a lot of assumptions there, but, I mean, could you try to get it approved on that kind of reasoning, and, of course, that's also not thinking about like the multispecies aspect of it, and it's honing-in too much on just one species, but, I mean, could something like that -- I mean, if you're saying people participating in this program are going to be reducing their discard mortality, and so can you let them participate on those grounds, is something like that potentially feasible?

DR. SCHMIDTKE: I guess the thing that I interpret from that is that's something that the fishermen have been asking for for a very long time. They've been asking that, well, if we're discarding all of these fish, and that's affecting how many fish that we can keep, then why can't we just keep the fish out-of-season, instead of discarding them, and the response has typically been because there would still be releasing that occurs, and I would be interested, as this project potentially moves, and it gets considered for the South Atlantic and whatever is done with it, moving forward -- I guess I would be interested to either have myself, or somebody from the council, but somebody involved in the focus group that kind of develops the parameters for it, because that's -- There are several issues that could potentially get run into within this region, but I don't want to like dominate the panel's time, and so I can just kind of cut it right there.

DR. CROSSON: To add to this, from my perspective also as an SSC member, as well as a member of this committee, is that, I mean, really, what he's saying about basically people trading the right to retain fish in exchange for a required reduction in effort at other times, is something that would have to come out of the management process, but it would also kind of get to that question that the SSC keeps going back and forth with council staff on, which is how we account for discards versus retained catch in our setting of the ABCs, and all of that is something that would have to be pulled apart.

Now, I have dragged Zander, recently, into modeling questions and trying to get at this, and this is something that I want to work with him, and I will definitely keep council staff in the loop on, but that's a big question that would have to be solved politically at the council level, if people are really willing to do that, because I've heard the same arguments, and I listened to the AP meeting last week, and I heard the same complaints that I always do, but it's something that people have to be willing to put them on the table, is that you have to require some reduction of effort if you want to convert discarded fish into retained fish, and that always seems to be the sticking point, politically.

DR. SWEENEY-TOOKES: Can I respond to Mike, because I'm hearing some of the same thing, in talking to fishers, that there's been a long-term frustration, and so what I'm seeing, in this idea, is maybe a way that the council is listening to fishers' voices, and listening to the communities, and looking for ways to think creatively to maybe accommodate some of the ideas that they've been asking for.

DR. SCHMIDTKE: I certainly hear that, and we're definitely -- I'm onboard with the idea that this is something that the council is doing, that the council could support, that's showing that science and management is hearing what they've been saying, but it just -- The other kind of aspect that there would need to be follow-up is that the information used here would -- There would need to be some information for the fishermen that would give them some assurance that this information is going to benefit the science aspect specifically in use of assessments, because that's something that they have been very skeptical of regarding -- They provide information, and then it doesn't provide any benefit towards them, in terms of being used and incorporated in an assessment or an ACL, things of that sort, and so that's a consideration to have, but I'm looking forward to seeing where this goes and how it develops.

DR. CROSSON: What I hope would be for the fishermen's perspective is that this is something that would offer quantifiable benefits, and not just something taken away, and that's what I heard. When I listened to the AP meeting last week, I heard several of the fishermen were basically asked about ways to come up with further reductions in red snapper discarding, but, without some kind of quantifiable benefit being offered in exchange, and I heard the reaction of the fishermen in the room.

I wasn't there, but I could hear it over the webinar, and so that's a very difficult thing to ask anybody, is what are you willing to give up, and what will you give me in exchange, and I have nothing for you in exchange that I can tell you about right now, and that's a tough thing to approach anybody, and so you all have my sympathy for having to ask the fishermen that question, but this is sort of the way that we're trying to think about this, is how can we offer something in exchange that is quantifiably of benefit for the fishermen, so that they understand what they're being offered.

DR. SWEENEY-TOOKES: I just wanted to emphatically second what Mike said.

DR. CROSSON: Are there other questions for Zander? Do you have any other questions that you want to ask the rest of us?

DR. GORDON: No, and I think we talked through a lot of kind of the open questions in my head, and so thanks, everyone, for the discussion. It was very helpful.



DR. CROSSON: We're running pretty well on schedule right now, and so I think we might take like a fifteen-minute break. I'm going to check into my hotel room and talk with staff about the council agenda.

(Whereupon, a recess was taken.)

## **REVIEW OF THE ALLOCATION DECISION TOOL AND STAKEHOLDER INPUT FOR ALLOCATIONS**

(The beginning of Mr. Hadley's comments are not audible on the audio recording.)

MR. HADLEY: We'll have some specific discussion questions for the SEP towards the end. As I mentioned, is a two-part process, and really the request of the SEP is to consider the revised decision tree questions that both focus on social and economic topics, and then, there again, we'll jump into the fishery report questions and proposed public input tool once we wrap up that Number 1, that first discussion item.

As a little bit of background, and I won't go into it too much, but, as you may recall from last year, the council has really been discussing sector allocations quite a bit, and it's really come to the forefront. I mean, it's always been a large fisheries management topic item, if you will, but, recently, a couple of years ago, there was the Government Accountability Office report on allocations that really went into considerations and suggestions for the council when considering sector allocation discussions and decisions, and then, also, and we kind of alluded to it earlier, but there is the revised method for estimating recreational landings, which the council has been addressing each time it has gotten an updated catch level recommendation.

Many of you, I know, are familiar with this, but really switching over from that Coastal Household Telephone Survey to the Fishery Effort Survey, and so FES, and that has changed how the recreational landings are accounted for, going forward, but it also sort of changed the previous baseline, and so it was back-dated as well, and, typically, recreational landings are estimated to be much higher, and so that's another major topic that the council has been addressing lately, when it comes to allocations. Previously, landings have been the primary data source used for allocation purposes, and so one of the major goals of this whole process is kind of to look at potentially other avenues outside of landings.

Moving forward, as I mentioned, the council is reconsidering sector allocations, sort of on a case-by-case basis, as they get new catch level recommendations from the SSC, and the idea is to really accommodate the needs of the fishery, and so you have the previous -- As I mentioned, sort of the previous baseline, if you will, has changed there on the recreational side, where there is the change from CHTS to FES methods, and so the change in how recreational landings are accounted for going forward, and so the council is really wrestling with sort of an equity of what happened in the past and then really trying to accommodate the upcoming needs of the fishery, for both the recreational and commercial sectors.

The goal of this whole thing is to help the council develop an approach to addressing allocation decisions that applies a consistent method across all species, and so to come up with a tool that they can apply over and over again for these decisions.

As I mentioned, this decision tree, and the resulting tool, has really undergone a pretty good amount of review. As you will recall, last spring, the SEP and the SSC reviewed sort of the initial draft of it, and this was sent on to the Southeast Regional Office and the Southeast Fisheries Science Center for a targeted review, later on in the summer, and then, also, there was a review by the council AP chairs, and so, throughout this process, the decision tree has kind of undergone some changes to address the comments and recommendations, where possible, and then it went on to the council for sort of a light review, a high-level review, in September, with the idea that the council -- It's a very busy agenda, and so it's a tough agenda item to cover during a normal council meeting, and so the council carved out some time in February to have a more in-depth special meeting to review the allocation decision tool, and then came back to it again in March of this year, afterwards, to tie up some loose ends, so to speak.

It is still a work in progress, but hopefully a work that's towards the end, and, ideally, getting towards a steady state. The idea is the first official, live, if you will, application of the tool will be towards Spanish mackerel, and that will occur -- It will be presented to the council at their December 2022 meeting.

Just a brief overview, from a very, very high level of what is the decision tree approach, and the idea is to use the same question-and-answer pattern for a tree, each tree for each species, and so, currently, there are four major topics covered, and the idea is that you pose a question, and, as the question is answered, it sort of branches off, based upon that, and then, based upon that answer, there is essentially a set of recommendations, with the idea to aid the council in making decisions such as whether allocations need to be considered in an amendment, which, you know, that's kind of a de facto yes now, with, as I mentioned, bringing in the FES numbers to how annual catch limits are being accounted for moving forward, but, once we get past that, that's going to be a question that is still posed to the council each time they get a stock assessment.

Each time they get a new catch level recommendation, they will need to consider whether or not -  
- At least take a look at allocations and see if there needs to be some sort of a change to them. Then, also, the idea is to help the council with initial structuring of allocation alternatives and help build rationale for those alternatives, potentially their preferred.

Overall, as it stands, there is four major topics that are covered. There is landings and discards, stock status, economic factors, and social factors. Really, what we're concentrating on here are those last two, and so the economic and social factors, sort of a targeted review for the Socioeconomic Panel, and the idea is that each species will pass through all of the decision trees, and so all four of those decision trees, and then, really, it depends on -- It's really going to be on a species-by-species basis, as far as what are the resulting recommendations.

Some decision trees may not be relevant for a given species, and you will also see that a question in one decision tree can be applicable to another decision tree, and you will see that landings is examined multiple times in the decision tree process, but really from a different angle. That's just of a background orientation, before -- We're going to get into the specific economic and social questions, but I don't know if anybody has any -- I will take a break for just a second, to see if

anybody has any questions on the orientation part, the sort of background part, of this. Not seeing any, we'll move along.

What we'll get into is we'll go into the specific economic questions and the specific social questions that have been -- This is essentially where they stand as of now, and then I'm happy to answer any follow-up questions that you may have, but we did want to run through an example of the tool, after we present the questions, and then come back to the SEP with the specific input that we're looking for at the very end.

Overall, there are three main economic questions, and the first one is getting at the economic importance, and so is the relative economic importance of the species changing? If yes, is it becoming more economically important to one sector, or potentially both sectors? If it becoming -- If it seems to be becoming more important to one sector, prioritize reallocation toward that sector which appears to have an increasing trend in economic importance. If it appears to be important to both sectors, then consider maintaining current allocations or looking elsewhere in the decision tree, and then, if it's not, if there's not really a relative trend there, then considering looking elsewhere or maintaining current sector allocations.

From a data perspective, really looking at proxies here, but, on the commercial side, looking at logbook information, to determine the commercial importance, and this is through a comparison of gross revenue from a specific species to total revenue for those vessels that caught that species. We do have a specific example for greater amberjack that we'll get into in a few minutes, but that's the idea, looking at the economic importance for the commercial sector. On the recreational side, sort of using a proxy there of comparing directed effort for a specific species to total effort for all South Atlantic Fishery Management Council managed species overall, and so basically directed effort for a specific species in comparison to sort of a total effort metric.

The next major economic, or high-level economic, question looks at trends in demand for a species, and so are there indications of notable trends in demand for the species at-hand? If so, and so, if the answer to that is yes, what is trend by sector, and it could be that the demand is increasing for both sectors, and, if so, the guidance from the allocation decision tool would be to consider maintaining current allocations or basing changes on other factors. If the demand is increasing for one sector and not the other, prioritize reallocation towards the sector that is exhibiting increasing demand, and, if there are no notable trends, then consider maintaining allocation or, there again, looking elsewhere.

From an analysis perspective, here again using sort of proxies for demand, looking at trends in ex-vessel price and landings on the commercial side and trends in directed effort and landings for the recreational side, and, additionally, this is an area that we do ask questions specifically on in our fishery performance reports, and so, each time we go through these fishery performance reports for a specific species, we'll ask -- There's a couple of questions built in there, to ask essentially the AP members what are you seeing as far as demand for a specific species, demand for recreational trips, private recreational trips, charter trips, in the restaurant or marketplace, those sort of questions that may help inform this question.

Then the third major question is the demand for quota, and so the idea is to look at whether or not a sector has fully harvested its ACL on a consistent basis. If the answer is yes, and only one sector has consistently harvested its ACL, then consider prioritizing reallocation towards that sector that

would likely benefit from the additional ACL and be able to harvest it. If both sectors are meeting their sector ACLs, then, in that case, consider maintaining current allocations, or looking elsewhere, and the same if both sectors are not -- The same advice, if you will, if both sectors are not harvesting their ACLs on a consistent basis.

Really, there are sort of two ways to look at, or examine this, and take a close look at this, going forward. If we're not dealing with sort of that CHTS to FES conversion, you can look at the historical use of sector ACLs, there again if appropriate. If there has been a change in the methodology for how landings are estimated, then a way to go about doing this is to look at the projected use of new sector ACLs under the status quo allocation percentages, and so, essentially, taking what would be the new total ACLs and applying the current sector allocations, from a percent perspective, and seeing how that would have played out in the fishery, say if they were in place for the past five years or so.

That's all we have for the economic questions. We'll jump into the social questions here, but I'm happy to discuss this now. As I mentioned, we're going to go through an example, to kind of help visualize how this may be applied going forward.

DR. WHITEHEAD: When you're looking at recreational effort, do you plan to model that, taking into account all the regulatory constraints on people's behavior, or is it just the raw data?

MR. HADLEY: It's the raw data, and so it's essentially taking directed trips, which, in this case, is looking at trips that are targeting or harvesting the species.

MS. WIEGAND: If there are no other questions for John, I can move into the social questions, and so the social questions are sort of broken up into two different trees. The first one looks at dependence on a given fishery and is focused much more on available quantitative data, whereas the second one looks much more at historical importance of the fishery and is based on more qualitative data, and so, for fishery dependence, one of the things we're looking at, is among the top-ten counties with the highest proportion of total -- We've typically been doing this with landings, on most of them, but engaged in commercial fishing, recreational fishing, or both.

I want to sort of note two things about this question. First, you will notice that, since last time you saw it, we have moved sort of the spatial area that we're looking at from individual communities to counties, and part of that is because, with the recreational data, once you sort of narrow down into a very specific community, the data becomes fairly unreliable, due to the nature of that type of reporting, and so, in order to keep sort of commercial and recreational at the same spatial level, we've started focusing on counties, which does create some issue when we're moving into that next question, which is looking at, of those sort of ten counties with the highest landings, are they highly engaged in commercial or recreational fishing.

Those indices are done at the community level, and so we've essentially been averaging for the communities that are within a county, to determine whether that county itself is highly engaged, not highly engaged, and so on and so forth.

Also, if you will remember, way, way back from when we first presented this to you, this sort of came out of part of the GAO review of allocations for the South Atlantic and Gulf Councils, and one of the things that was recommended out of that was to incorporate the social indicators that

are used in our amendments, and they're a fairly common metric used in South Atlantic fisheries, into discussions of allocations, and so we've really tried to work it in, with this decision tree specifically.

If most are highly engaged in commercial fishing, you would consider prioritizing commercial fishing opportunities. If most counties are not engaged in commercial fishing, you might want to review fishing opportunities for associated species and consider whether adjustments to the specific species you're looking at for allocations are necessary.

The exact same thing with the recreational sector. If you end up with a fishery that's sort of equally engaged in commercial and recreational fishing, you may consider removing sector allocations altogether or allocating equally between the sectors. Like I said, the analyses that we're considering here are those social indicators and looking at fishing engagement, and no longer regional quotients or local quotients, and we've sort of moved that up to the county level, to try to get at both the recreational and commercial sector.

Next up, we've got cultural importance, and this is the more qualitative of the trees. It's looking at if the fishery plays a unique role in the history of a given fishing community, and, if it does, is it really currently an important part of cultural tradition, or, for example, tourism, and I will talk a little more later about how we're going to sort of expand this idea, by updating our fishery performance report questions and soliciting additional stakeholder input, but, for now, if it's not an important fishery historically, you might want to consider allocations that reflect the current state of the fishery or may allow for room for either sector to grow.

However, if it is important historically, and it does play an important role in community and cultural tradition, your next question is sort of have regulatory changes in the environment affected the role this species plays in communities, and, if it has, then you may want to consider allocations that mirror the historical, real, or de facto allocations, or current values in the fishery, and those are things that you can elicit through fishery performance reports. If it's not the regulatory environment that has changed the role this fishery is playing in communities, then you may want to consider prioritizing economic, biological, or social needs.

Again, most of this analysis is going to be qualitative, and so we'll be looking at summarizing information from fishery performance reports, any sort of available demographic data that we might be able to find, which can be few and far between for South Atlantic fisheries, and then, of course, the council's informed judgment, based on their experiences with this fisheries and all the information we're providing them from stakeholders.

MR. HADLEY: All right, and so that's kind of an overview of the decision tree questions, and the next step is to sort of go through the nuts-and-bolts of working through the decision tree process and then show you an example with greater amberjack, and so, overall, what's envisioned, as far as working through the decision tree, is that the council staff will gather the appropriate information, and this will be presented through a Shiny app, which we'll get to in just a minute, and it's essentially our fishery overview that we've been using for the council, and it really helps with the very beginning of an amendment process, to kick-off that process and give the council sort of as much background information, in a useable form, as we really can, and so the idea is to tie-into that existing tool, to provide the information to work through the decision tree.

After that, staff will develop preliminary responses and move the council through the decision tree, and the results will be compiled in a decision tool, and then council members will be able to clarify the outcomes of each decision point and ask to address any subjective outcomes, and so, if there's something that is not clear, the idea is to go directly to the council and say this is kind of where it's hung up, and we need your input here, from a subjective standpoint.

Working with the results, it's possible, and I will say highly likely, that not all decision trees are going to have input every time for every species, and there's probably going to be some data concerns for some of our data-poor species, where there's just not the information there, and so that's something that we may run into, on a species-by-species basis, but it's also not likely that all decision tree branches will point to the same sector allocation recommendation.

This was -- So there's no assigned rank or weighting, and this maintains flexibility, which is really one of the council's goals in this process, was to maintain that flexibility, to look at things on a species-by-species basis, but, also, evaluate allocation decisions on a species-by-species, and the council will resolve conflicting allocation recommendations on that basis as well.

Overall, the outcomes of the decision tree can be useful to help, there again, the council develop, from the very start, the range of alternatives, and so, if you'll give me just a second to load this up, I'm going to bring up an example of sort of a run-through of how this will be applied, and so what I'm pulling up is our fishery overview for greater amberjack and then the allocation decision tool, and so I will -- If you give me just a second to resize this, I will walk you through the tool itself, and hopefully go from more of a nebulous process to more of something concrete, and this is sort of what we intend to go through with the council.

On the left here, you have the fishery overview, which is essentially, as I mentioned, something that we've been putting together, on the staff level, that shows sort of relevant information for a species, looking at stock assessment outputs, history of management, fishery performance report, if one does exist, and then general data, and then, over here, on the right side of the screen, you have the allocation tool, as we've developed it so far, and I will enlarge that just for a second, but you can see, over on the left here -- Here's landings and discards, stock status, economic, and social, and the idea is that the council will be able to work through each one of those questions that was presented, with the idea that it will provide summary advice, at the very end, that shows sort of here's the summary advice from each perspective, based on those questions and the data available.

With that, we're going to start off, and I will just kind of work through some of the economic questions, and so, overall, the idea is the first question would be, from an economic perspective, looking at is the relative economic importance of the species changing, and, moving over to the fishery overview, what's presented here is on the commercial side, and so the graph there on the left shows the percent of commercial revenue from greater amberjack compared to total revenue from vessels landing amberjack, and so it's a relative percentage, and, as you can see, there's sort of a decreasing trend there, from a commercial perspective.

Moving over to the right, it's a comparison, and so the percent of recreational directed trips for greater amberjack compared to total directed recreational effort for South-Atlantic-Council-managed species, and, really, what we're looking at here, and what we've looked at so far, is using a five-year baseline, overall. I will pause there, and I see John has his hand up.

DR. WHITEHEAD: Sorry to interrupt, and so is it a straight line between 2016 and 2018, or is this made-up data?

MR. HADLEY: The straight line is -- The dashed line is the trend within that data, and the solid line is real data for greater amberjack, and it's not totally up-to-date, and so the idea -- We had kind of gone back and forth, with coming up with an example, of whether or not to come up with an example species, like just made up shadow shark or some species and show that, and the council did want to see this applied to a real species, with the notion that, you know, it's still in the development phase, and so not to use this for management right now, but to at least apply a real species and see how the tool would work, and so everything that you will see here is real data for greater amberjack.

DR. WHITEHEAD: Is it smoothed, because it's just a straight line, the solid line.

MR. HADLEY: The solid line is not. It's the actual data points, and then the dashed line is just a -- It's essentially a straight line right through the middle, showing a trend in the data. John, I think one thing -- The line jumps -- I think I see what you're getting at here, and so another thing is it's basically annual points of data, with a line in between them, and so that's why you see the straight lines between each year, and I think that might be one thing that's a little confusing at this point.

DR. WHITEHEAD: I'm just surprised that it's linear for those three years, and the middle point is right on the line of connecting the two outside years, the highest and the lowest. Why don't you just keep going?

MR. HADLEY: I hear what you're saying though, and, basically, the recreational data on the right here, from 2016 to 2018, is essentially linear, and that's what you're pointing out. Duly noted.

DR. WHITEHEAD: If they were dots, I would have looked at the straight line and said, okay, well, that's the data.

MR. HADLEY: To me, that would be a good SEP recommendation for the next -- Once we get out of the beta phase with this, adding actual data points to those graphs, and I think that's something that we can certainly do, to show that it is sort of an annual estimate, or a point estimate, rather than a trend throughout the year.

DR. STEMLE: I had a question. With regard to the recreational side, it seems like, on the social questions, you kind of look at the importance locally to the people, and I think, if you were going to use MRIP data to look at these targeted trips, you can know where the anglers are coming from, and I think that's in the dataset, and NOAA has some pretty good information out there, on their rec angler trip expenditure reports that they do, that tell you that people coming from far away usually spend more money, and so there might be -- Within those directed trips, it might be important to look at local versus non-local, and that might just muddy the waters, because it might run completely counter to the social questions, but it seems like it might be something worth looking at, because, if you look at the expenditure patterns, they are quite a bit higher, but, that said, I'm not 100 percent sure their most recent report did resident and non-resident, and so you would have to look and see, but it's just an idea.

DR. CROSSON: I think MRIP data generally, and not just the -- I mean, the general intercept data usually has, I thought, the zip code of origin for the species.

DR. STEMLE: I just meant the most recent one of those trip expenditure reports that they do, and I don't know if they broke it down by resident and non-resident.

MR. HADLEY: That's something we can certainly look into, and, even if it's not reported directly through MRIP, maybe there's some assumptions that could be applied there to -- If you're okay with those assumptions from the expenditure report, apply those to the effort, and we could break it down that way as well. Thank you.

Moving along here, essentially the take-home point here, from these proxies, is that you see sort of a downward trend there, as far as the economic importance, at least as it's presented here, and so the idea is, is the species changing? This is something that we'll add, and something that we kind of come across, and it's not necessarily -- It's becoming less important, essentially, based on the presented data to both sectors, and, in this case, we'll say more important, just because the outcome will be the same, and there's your sort of recommendation there at the end. From an economic importance perspective, the idea would be to consider maintaining current allocations or looking elsewhere and making allocation decisions on other factors.

DR. STEMLE: Can I ask a question? The data years for what's going into the allocation decision tree, how are you determining that, because like, for right here, this is a snapshot of 2015 to 2019, and so will we say that the fishery is actually in economic decline, or are we going to need to look at a longer time series of data to determine that, because this could just be a localized effect for this particular time period.

MR. HADLEY: That's a good point. I mean, as far as the terminal year, it's just going to be whatever we have available. At the time we kind of crunched these numbers, it was 2019. From the time series perspective, we can expand that out, and I would love to hear any comments on that, or recommendations, and how far to go with it. The idea is that, you know, you do want to have -- Look at is this a true trend, or is it just sort of a localized effect, or an effect of the time series that you chose, but, also, keeping in mind the idea is to sort of look at the recent -- Try to get a snapshot of the recent fishery, with the notion that this may be, at least in the near term, what the fishery may need, so to speak, over the next few years, but, for right now, I don't know if there is further discussion on that, but, as of now, with all the data that will be presented, it is a five-year baseline, the most recent five years.

DR. ROPICKI: You did mention, in the background on the questions, using ex-vessel data, right, and, I mean, the prices, the actual prices, will be used too, because this could be -- Your total revenue could be highly impacted by your regulations.

MR. HADLEY: Yes, and essentially, that's -- I mean, that's using the logbook data, and so that's -- All right, and so feel free to stop me as you would like, but I will just keep moving forward and take questions as they come.

Moving on to the next topic, and so it's looking at are there notable trends in demand for a species, and so there's essentially four sets of data that go along with this, and so the first two graphs look at directed trips, in this case for greater amberjack, and then the second graph looks at recreational



landings, and you will see pretty similar trends there, and there's not too much of a surprise, but a different scale, but the take-home point is you do have a decreasing trend in effort and landings, at least over this time series of 2015 through 2019.

Then, moving down, switching from recreational over to commercial, looking at trends in ex-vessel price and then trends in landings, and so, there, you do have an increasing trend in the ex-vessel price, paired with a decreasing trend in landings, and so, moving over, are there notable trends in demand for the species? Yes, and, in most cases -- There again, we're going to change the wording here, so it's not demanding is increasing, and, essentially, it's decreasing across-the-board, with the exception of the price per pound, and so we'll say, in this case, increasing for only one. The idea is that it would prioritize reallocation towards the sector that is exhibiting increasing demand.

Then, moving on to the final question, looking at demand for quota in this case, and so has a sector fully harvested its ACL on a consistent basis? The idea is whether or not it's using its allocation, each sector is using its allocation. As I mentioned earlier, this is one of those circumstances where you can't necessarily just look at how the sectors have been using their allocation, particularly the recreational sector, because we have had that change from -- Well, in this case, from MRFSS to FES estimates on the recreational side, and so you're really doing a retrospective comparison here.

The idea here, for these first two graphs, is looking at recreational landings and the percent of the potential status quo ACL that would have been used if it were in place, and so the idea is, if you took the existing sector allocations, which is approximately 40 percent commercial and 60 percent recreational, and you applied it to what will be the new ACL, this is how it would have played out over the past five years, and, essentially, if that ACL had been in place, and the fishery had operated as it had in the past five years, the recreational ACL would have been fully utilized, or, well, more than fully utilized, for three years, and so those first three years of 2015 through 2017, and, in subsequent years, it would have fallen below 100 percent utilization.

Moving down, the next two graphs apply the same concept, and so it uses the current sector allocations on a percent basis and applies it to what will be the new total ACL, and you're seeing how that would have played out for the commercial sector, sort of in a vacuum and not looking at changes to any sort of other management measures, like size limits, bag limits, trip limits, that sort of thing, but just how it would have played out over the past five years, and, in general, the commercial sector would have been well below its sector allocation, on a pound basis. It would have been harvesting approximately 40 to 60 percent of its sector ACL.

Moving back over to the allocation decision tree, in this case, has the sector fully harvested its ACL on a consistent basis, and we'll say, since, three out of five years, the recreational sector had, and the outcome for that would have been to prioritize reallocation towards the sector that would likely benefit from additional ACL.

I will note another suggestion of the council, and that we're working on at the moment, for having a little bit more directionality to those outcomes, and so, essentially, it would tell you which sector it is suggesting reallocating to, and so that's a little improvement that we intend to put into the decision tool, overall, and, with that, I will take a break before we hop into the social questions.

MS. WIEGAND: All right, and so, next up, we've got the social questions. Scrolling down here, you can see that county-level data that I talked about, and so these are the top ten counties for commercial and recreational landings of greater amberjack, and that orange line is average landings throughout the entire South Atlantic, so you can see which of these communities are popping up above that average.

Then you can scroll down here, and this is where we use those commercial and recreational engagement indices, and they're broken up into sort of five levels. They are factor scores that have been normalized and broken up into five levels of not enough information, low engagement, which is below the zero standard deviation, and you've got zero to 0.5, which is medium, and medium-high is 0.5 to one, and then above that one standard deviation is considered high engagement.

Then, again, we've sort of got a mismatch between the county level that we're at for identifying the key areas and then these which are put together at that community level, and so we just averaged to get this medium commercial engagement that you see for Monroe County and medium engagement for the recreational and Monroe County, and so on and so forth, and so, scrolling here to the social questions now, when we presented this information to the council, and they looked over sort of these engagement indices, they felt that they were seeing equal levels of engagement for both the recreational and commercial sectors.

That would then move us on to looking at the more qualitative aspects, and we do have the fishery performance report included here, and I will say that we are going to be talking to you guys, in a little bit, about better ways to present some of this fishery performance report information to the council, in a way that's sort of a bit more digestible than just this long narrative that we have here, and so hold tight.

We'll be discussing that, and I'm looking forward to your input, but, based on my sort of quick perusal of that, and based on the discussions that the council had at the table, it was in fact that fishing activities did play an important role in the history of fishing communities. If you look through this document, you can see references to activities that were taking place back during World War II, for example.

However, it didn't seem that this fishery played a really important role in cultural tradition or driving tourism, and so the resulting recommendation is to consider allocations that mirror the historical, real, or de facto allocations, to sort of represent the fact that it was an important fishery historically.

That's what we get for the social questions, and then you can see that all of that information, like John said, pops up here in this summary page, and, of course, had we gone through the landings and stock status trees as well, their information would pop up, and so I guess we'll go ahead and pause here again and see if there are any questions, particularly about how we're presenting things here, and then we'll move on to the specific discussion questions that John and I have for you. With that, I guess I'll turn it back over to John to talk about the feedback and discussion for the economic-specific questions.

MR. HADLEY: All right, and so two major questions here, and we can jump back up, if there's a specific question that you want to look over again, and we can certainly jump back up into that slide previously in the presentation, but, overall, we're looking for feedback on, first and foremost,

sort of keeping in mind the need to focus on readily-available data and completion of the decision tree in a relatively short amount of time, and we typically have a few weeks, or maybe a couple of months, with that.

Are the economic questions adequate, and, specifically, given the lack of, in many cases, readily-available specific and dynamic information on a species basis, do you feel like the proxies that are used are appropriate, and, if not, do you have any recommendations or solutions for how to maybe address those better, but keeping in mind that sort of applied time-sensitive manner.

The other is the outcome, and are the resulting recommendations appropriate, from an economic perspective, and do you think they will help guide allocation decisions, there again without being too prescriptive, and, as I mentioned, the council doesn't want to be too prescriptive with this, and they want it to help guide their decisions, but they don't want their hand to be forced, so to speak, by this allocation tool. I will mention that we're going to start off with the economic, and we have a similar set of questions -- A few extras, but a similar set of questions on the social side as well.

DR. ROPICKI: I was just wondering -- I mean, given the time constraints and access to data, I think they're pretty good, and I feel like -- Would it be possible to measure, basically as an additional demand measure, how long the season was originally planned for, you know how many months did you give it, and how quickly did the sector hit its targets, or did you shut it down?

MR. HADLEY: That's a good point, and that's something that we could add in there, because we are going to have some sort of additional points for the fishery performance report questions, if there's feedback in there, and so that's something that we could add to the decision tool that's sort of just a here's what happened, and it shut down early, or the season kind of ran to the very end.

DR. WHITEHEAD: That captures my concern for context, right? Okay.

MR. HADLEY: So I guess it sounds like you feel like the use of proxies, at least in this case, given the time considerations, are appropriate, or at least it shows, by proxy, what the trends in demand could be, or the trends and whatnot in each aspect that's getting reviewed, if you will, and the use of proxies is generally appropriate.

DR. WHITEHEAD: As I recall, that's something that the economists and social scientists on the SSC, and then the SEP, have been saying for a long time, to use the data that you have to make decisions, and, I mean, like twenty years, when Jim Kirkley was on the SSC.

MS. WIEGAND: All right. Well, we have very similar questions for the social questions. Do you guys feel that the outlined data analyses are adequate? Are there other readily-available, and, again, "readily-available" is sort of the key here, data sources that could be examined, particularly given sort of the conflict we're having between the community and county-level data?

In terms of presentation, is there a better way to sort of display this information, or to summarize the available qualitative data, other than sort of that lengthy narrative, and we will talk about that in a little bit more detail when we get to the sort of Part 2 of the allocation discussions with the fishery performance reports, and, last, but not least, are the resulting recommendations appropriate, and are they clear enough to guide decisions without being too prescriptive, as requested by the council?

MR. DIETZ: I have a quick question on this one, if I could. This might be a dumb question, but how do you -- I guess how do you verify, or what do you consider a valid source for social context of a fishery? Who or what is considered a valid source? I guess importance is extremely subjective, and in the eye of the beholder, and so I didn't know if you had a criteria about what sources you will use to evaluate kind of social importance.

MS. WIEGAND: That's an excellent question, and so what we're basing it on right now are the fishery performance reports that we conduct with our advisory panel members, and so their opinion, or beliefs, on the fishery and its historical importance, as well as we're looking to put together a tool to solicit additional input broadly from stakeholders, and this will likely be something that we, you know, put on our website and let people know it's available, similar to the Gulf Council's Fishermen Feedback, formerly Something's Fishy, tool, if you're familiar with that, but those are two ways, right now, that we're soliciting input, on a qualitative basis.

MR. DIETZ: Thanks.

DR. SWEENEY-TOOKES: I am thinking about fishery performance reports and how often they're conducted and thinking that, if we're relying only on those, then I'm a little concerned, but, of course, time is of the essence, and we don't have endless time, and is there any literature search that goes on, hand-in-hand, with the use of a fishery performance report, just to see if there is any way to update the data that's in there, and that might be one thing that I would be wondering about. I don't know the analysis methods that they use for the fishery performance report, and so is it just people say things, and then they type them in the report?

MS. WIEGAND: That's the way it is right now, and I don't want to stop discussion, but perhaps it would be helpful to sort of go over the fishery performance report discussion and sort of what we're looking to change, to get at exactly what you're talking about, that we don't really do any sort of analysis on the fishery performance reports.

DR. SWEENEY-TOOKES: That sounds like a great idea.

MS. WIEGAND: All right, and so this is sort of a document that we've put together to go over all of the ways that we're soliciting stakeholder input for allocations, and the first one of those ways is fishery performance reports, and I know a lot of you are already familiar with fishery performance reports, but, since we do have some new faces, I wanted to go over the briefest of overviews on what fishery performance reports actually are, and so these started back in 2017, I believe, as a way for staff to gather information from our advisory panels, based on their experiences and observations on the water, specifically to be used as a way to complement scientific and landings data that was going into assessments, but this information can also, of course, be used to help aid management decisions.

Because the original purpose was to provide information for stock assessments, these fishery performance reports are typically conducted with our advisory panels, in advance of an upcoming stock assessment, and we work closely with the analyst, to see, based on their perusal of the data, if there are any specific questions or data gaps they would really like to get information on from advisory panel members, but we also have sort of a stock list of questions that go to advisory panels at every meeting.

Sort of the first step is that fishery overview that we showed you, and we presented that information to the advisory panels, and then we go through a series of discussion questions that address things like landings and discard levels, how current management measures are performing, environmental conditions and general ecology associated with the fishery, other concerns and data gaps, and, of course, social and economic influences.

Right now, what happens is that, during the advisory panel meetings, staff will simply run through those discussion questions and allow advisory panel members the opportunity to have a discussion about their thoughts and observations. All that is recorded, and then, using notes and the meeting minutes, council staff prepares a fishery performance report that essentially just summarizes the discussion that took place, and so that is what is currently conducted for fishery performance reports.

The council has also recently asked staff to put together a new public input tool to specifically be used in conjunction with fishery performance reports, to gather information for the allocation decision tree tool, and what we're looking at basing this on is the Gulf of Mexico Fishery Management Council's Something's Fishy tool, and it's now called the Fishermen Feedback tool, as a way to gather information.

There are some sort of positives and challenges with this. Of course, an online form is going to provide a lot wider range of stakeholder input, as opposed to just focusing on our advisory panel members, and hopefully we would be able to do some type of text analysis, similar to what the Gulf Council has done with the input they've gotten. It is an additional ask of stakeholders, who we're already asking to provide public comment and participate in surveys and a variety of other things, and, depending on the level of questions we ask, if it goes sort of above and beyond this idea of soliciting public input, we may have to go through some Paperwork Reduction Act approval, which can be not a timely process. It can take a significant amount of time.

One of the things we're looking to sort of start doing, both with fishery performance reports and with new data that we would gather through the stakeholder input tool that we're looking to develop, would be to do some sort of very simple, base-level text analysis, looking at word clouds and word trees, to sort of help depict those key words and phrases that are being used in the fishery performance reports and in the comments, to conduct some sentiment analysis, to the extent possible, as well as some, and I can't stress this enough, simple thematic analysis, to sort of help understand the sort of shared patterns we're seeing across comments that are submitted, as well as within the fishery performance reports. Like John was talking about earlier, a lot of this will be on a fairly short time period, and so we have to make sure that any analyses that we're doing can be conducted relatively quickly.

Here are some things that we're looking to add to the fishery performance reports specifically to address requests from the council, and one of the things they asked for was more information on species distribution shifts that could affect allocations in the near term, and so perhaps over the next five years, and so we do ask, already on the fishery performance reports, sort of where and when are the fish available and if this has changed, annually or seasonally, inshore versus offshore, and things like that. We could also add an additional question to the FPR that would ask if there has been a shift in catch, and, specifically, does it have the potential to affect current sector or

regional allocations, and we do have some species with regional allocations here in the South Atlantic.

Next, they wanted to get more information from fishermen on whether there is an important catch-and-release aspect to the species, and, right now, we don't have any questions on the fishery performance reports that really get at that, and so we were proposing to add just how common is the practice of catch-and-release in this fishery?

Next, they wanted to get a bit more information on the cultural and historical significance of a species within a community, particularly in terms of tourism and messaging, and so, while we do ask sort of what communities are dependent on this fishery, the proposed addition is to ask specifically if there have been any festivals or events that highlight this species, past or present, and, if the species is an important driver of tourism, for example, do you see imagery of fishermen and working waterfronts that are used in marketing materials for tourism to the area?

Then, last, but not least, they were also interested in price and demand changes for seafood throughout the entirety of the seafood supply chain, and so, right now, we do ask, for the commercial sector, how has price and demand for shadow shark, for example, changed, and we're proposing an addition that would ask, beyond what the boat gets paid, has price and demand from the end consumer changed, and so those are the changes we're looking to make to the FPRs and the additional analyses we're hoping to be able to do with the qualitative information, both from the FPR and from that new stakeholder tool that's under development.

We have a whole list of questions here that I am looking for more information on, if the SEP is sort of comfortable with the additional discussion questions for the FPR, and if they think they are sufficient, or targeted enough, to get the information that the council is requesting, any improvements that could be made to produce more valuable information. Given that fishery performance reports can be very timely to conduct with an advisory panel, and they take up a significant chunk of very limited advisory panel member discussion time, are there any questions that seem redundant or unnecessary, and the full list of questions is included in the appendix of this document.

Then, given that the public is asked to provide so much information to the council, be it public hearings, meeting public comments, scoping, how can staff ensure that this new public input tool not only stands out, but isn't overly burdensome on stakeholders? Then, given constraints associated with the PRA, is there a way that staff can sort of structure the tools to elicit specific information that's important for council allocation discussions? Are the analyses listed sufficient? Then, last, but certainly not least, any ideas for a catchy name for the new public input tool? I know that was a lot, and so I will leave the questions on the screen and sort of turn it back over to the panel.

DR. SWEENEY-TOOKES: I know that Christina and I have had multiple conversations along these lines, and this sort of harkens back to I think it was David that asked what do you consider to be a data source, and, on the one hand, I never want to say that we shouldn't be gathering qualitative data, and we should be gathering data, and we should be listening to fishers in these AP meetings, absolutely 100 percent, and I think the work that you all are doing in that respect is awesome and important, but we're sort of skipping over the analysis part, and that's where fisher stories become actual data, is when we do that analysis of the qualitative data.

It is time consuming, and it hurts. Believe me, I know, but I am -- I think that a lot of the answers that you're looking for are sitting somewhere in that sort of data analysis section that's getting jumped over here, and I think, without doing some sort of analysis, and you know, and Christina is looking at me and going, yes, I'm going to need another person to help with this, and you know that word clouds are sort of that first step, but really actually crunching those numbers, because skipping that really important systematic analysis is what makes quantitative researchers squint and say that this isn't really data, when we know that there's data there, and we know that there's information there, but, unless we actually do that time-consuming analysis, we don't have it yet, and so I guess I would just urge that we sit in that place and find some way to do maybe rapid assessments, or thematic assessments, like you're saying, some sort of textual analysis, as we quickly as we can, but, without that step, then it does make the things that we're calling data in that FPR kind of questionable.

DR. ROPICKI: How does -- I mean, I'm familiar with the Something's Fishy, but I feel like the council over there, the Gulf Council, didn't use it in this manner, and, I mean, it was kind of a -- They prompted them. They said here's a topic we would like you to talk about, and I'm just not 100 percent that this is what they used it for, or use it for.

MS. WIEGAND: My understanding is that the Gulf Council's Fishermen Feedback tool was sort of their version of a fishery performance report, almost, and they put it out right before an assessment and allow anyone to sort of comment on it and provide their input on what is currently going on in the fishery, just sort of their current observations in the fishery, and then they take the comments from that and they use R software to conduct a sentiment analysis and produce word clouds, and that's what they do with the information they're getting from Fishermen's Feedback.

DR. ROPICKI: Because I thought they used it more -- Like I remember, and I wasn't the one running it, and so I could be wrong, but I thought one of their big successes with it was with red grouper, when they had that really bad stock decline, and that's really where the Something's Fishy name came from, and it wasn't so much they were thinking about what they were going to do with it, but they just wanted to know what are you seeing on the water, and there's something going on with red grouper, and the overwhelming response was, yes, they're not out there.

I don't know, and I am concerned that, if you create this tool -- I think it's a really good idea, and I think it should be something that's done, but I'm concerned that, if you create this tool with a specific place for it in allocation decisions, you're going to get your two sectors bickering. Every time it comes up, they're going to say what they think will get them more fish.

MS. WIEGAND: I think that's a fantastic point, and so I guess I would be curious what the group thinks. If we -- I mean, we're sort of down this path already, but, if we're careful to make sure that this is to be treated the same way as a fishery performance report, in the sense that it's providing information for the stock assessment, and may also be used in allocations, the same way fishery performance reports may also be used in allocations, do you think that's -- Given that we'll be asking these questions, or putting out this tool, in whatever form it looks like, well before we would be discussing allocations, I'm curious if you think that's sort of sufficient to get at that very real issue.

DR. ROPICKI: I am just thinking that, the first time the council uses it to make an allocation change, it's no longer useful, no matter how far out ahead you get, because, I mean, a lot of the fishermen know how to play the game and will act in their best interests, or as they see fit.

MR. DIETZ: I don't disagree with that, but I do think there are ways to fold bias into the assessment, just acknowledging the sectors that respondents are coming from, and then also asking maybe more directed questions to expose bias of, you know, if you are a recreational stakeholder, and you're, through this report, advocating for better allocations to the recreational side, have probing questions that say why do you think this sector deserves a greater share, and what is your observations, or experience, that makes you believe these changes are merited, or something, and so, if we acknowledge that bias will be there, and it's not going to go away, no matter how you adapt the surveys, or the questionnaires, is there a way to acknowledge the bias from the onset and fold it into your line of questioning, so that you at least have a control for it more, because I agree that I don't think there's a way that you're ever going to get fishermen to not fight for their own advantage at every turn here. Also, for names, just since I'm unmuted, the first option is Fair Share, and the second option is to keep it as the public input tool and just call it the PIT.

MS. WIEGAND: You couldn't hear it, but there were many chuckles had on this side of the room, and so thank you.

MR. DIETZ: I took a chance. Thank you.

MS. WIEGAND: So, focusing on the fishery performance reports then, we were looking at making a lot of additions to the fishery performance reports, and we really want to make sure, one, that the questions we're proposing are getting at what the council has asked us to try to get at, as well as if there's anything you think could be removed, and, I feel like I've said this a lot, but because of time constraints at advisory panel meetings.

John and I were having a chitchat over here, but, in particular, we're interested in that bottom bullet point that you see that's asking about catch-and-release. Is this the right question to ask to get at the importance of abundance to the recreational sector, sort of this idea that's been discussed at the council table a lot that catch is important to the commercial sector at the dock, whereas, for the recreational sector, it's important that they're in the water and that encounter rates are high, that importance of abundance?

MR. HADLEY: To follow-up on that, I mean, we have -- We can show harvest numbers, or pounds, and we can show -- You know, trying to keep in mind, you know, what kind of information could you actually show the council that we may have in-hand that would get at that importance of abundance, and so the idea was to say, okay, is there an important catch-and-release fishery that isn't voluntary, and, for red snapper, there's a big catch-and-release fishery, but that's a regulatory discard, and so that's kind of where we ended up on that, and, there again, trying to keep in mind that, okay, if there is an important -- If the AP says there is an important catch-and-release aspect to this fishery, we could show here's the number of trips that released X, Y, Z species.

DR. ROPICKI: I think it's a good question, and the thing that -- What federal waters fishery would be talking about? Just off the top of anyone's head in the room, what would have a big catch-and-release that isn't regulatory?



MS. WIEGAND: I mean, greater amberjack, and our thought over here was mackerels.

DR. ROPICKI: I didn't know, and I was just curious.

MR. HADLEY: To follow-up on that, that's something that it's almost as if we could rely on the APs to make sort of that expert judgment call of yes or no, and this is important, or, no, this isn't, that sort of thing, and then we can go from there and try to find some data to show the council, based on that expert input and guidance, and hopefully helping to differentiate, you know, does this species have an important catch-and-release aspect or not.

MS. WIEGAND: Sort of moving on to the next one, are there additional, more targeted questions or aspects of cultural and historical significance that aren't bit hit on in the proposed addition to the fishery performance report?

DR. SWEENEY-TOOKE: I like the three you have listed, the festivals, and I'm thinking the blessings of the fleet, the oyster festivals and such, and the imagery and the tourism, that's a really good one, and that's something that has come up over and over in interviews, and so you have a good list here.

MS. WIEGAND: Then I guess we've got just the last one here, and is there sort of anything more specific, or sort of the broad question here to look at, and is demand from the end consumer sufficient to get at that prices in price and demand throughout the supply chain?

DR. ROPICKI: I think, if you get a room full of experts, dealers and fishermen, I would just ask them, more generally, what drives the price dockside, because some of these fisheries -- You know, it's not going to be the local catch, and it's going to be something out in the Pacific, and so just get them in a room and ask them, and I think they will generally let you know.

MS. WIEGAND: All right. Then, I guess, last, but not least, we've got sort of the full list of questions here, and we don't have to go over them in detail now, but I will ask if you've sort of -- If you've looked over them, or if you're looking over them in the future, and you think there's anything on here that doesn't really need to be asked, and here are the specific social and economic questions that are currently on the report, not inclusive of those additions we've just talked about, and if, in the interest of time, there's anything you think we could strike from this.

MS. BROUWER: Just, while I was looking at those questions, two questions that invariably get sometimes like a grumble, or like a duh from the APs, are like the question about infrastructure, and how has, you know, the lack of infrastructure, or the disappearance, affect your fishery, and so they're always like, yeah, well, there's a dumb question, and then the other one is dependence, and like, often, at least for the snapper grouper fishery, the fishermen are like, well, yes, we do depend on this species, because it's one of many that we use to put together a trip or whatever, and so there is always an affirmative, but how do we kind of drill down more into those things, and so that just popped in my head. Thank you.

DR. CROSSON: On the question of dependence on fisheries, there's a couple of papers from NMFS economists, and I'm on one of them, and Dan Holland and Steve Kaspersky I think were alone on the other one, but they were looking at the question about -- They were both -- Both articles were in NAS, the proceedings, the National Academy of Sciences, but there looking at

whether the introduction of ITQs was leading to fishermen to have a less diverse portfolio, I guess, for a better way of putting it, and they were more dependent on that species, and so, I mean, the question itself isn't relevant, but the methodology that was used might be a way of looking at it, because were quantifying, using Gini coefficients and HHI and some of those other -- They're not hard economic things to figure out, and so I can give you the citations for those, and they might be relevant, in terms of dependence on a fishery.

DR. SWEENEY-TOOKES: Looking at the second question that Myra mentioned, the have changes in infrastructure affected fishing, I would just say how, how have they, so that you're actually getting the details about how many docks have closed, or there's an ice shortage, or what the actual problems are, since we all know the answer is yes.

MS. WIEGAND: Would it perhaps help to -- Sorry, and now I feel like I'm just spit-balling back and forth with you, but would it help to sort of merge the bottom two bullets, given that fishermen and communities -- One of the changes they're having to adapt to is loss of working waterfronts and infrastructure, just to sort of rope that all into one question, or --

DR. SWEENEY-TOOKES: I find, if you try to rope too much into one question, something gets lost, usually, and so you could play it by ear. You're going to get two very different sets of answers for those two different questions, and I don't think you're going to get similar answers at all.

MS. WIEGAND: All right. Well, then maybe I will jump back to just sort of, very last, but not least, back to the social questions that we had on the broader allocation tool, considering everything we just went over with the sort of fishery performance report, bringing back up these questions. I guess we've definitely sort of addressed the first two, but, lastly, are the sort of results that are -- The recommendations that are coming out of the social trees, are they appropriate enough to guide the council with what to consider, but not be too prescriptive?

The cultural importance questions will likely be modified a little bit, given that it seems like we are going to start including some of those new questions in the fishery performance report, and then, here, you've got the more quantitative fishery dependence questions. In the tool, and I will give it a second to reload, it does show the questions, and then you sort of -- It adds as you go through, and so on and so forth. Then you get your final recommendations in the summary.

DR. SWEENEY-TOOKES: I admit that my eyesight is very bad, but, when we went through this first time, and I was squinting -- Can someone who sees better tell me, and it felt like we had a long series of conflicting recommendations. Okay. So I did see it.

MS. WIEGAND: You're spot-on, and there were a list of sort of conflicting recommendations.

DR. SWEENEY-TOOKES: So then the council is going to look at this list, and they're going to decide what they think is important, the economics, the social, the stock status?

MS. WIEGAND: So perhaps, and I can see concerns about order, and I think the idea was to use this to develop alternatives that will go into an amendment, and so there may be alternatives that would prioritize the economic advice, alternatives that would prioritize the landings advice, alternatives that sort of match the social and stock status advice, so to speak, but the idea is to help them develop alternatives to consider, based on what is coming out as most important for the

fishery, based on all of these. Early on in the process, we had talked about weighting, and, ultimately, the council decided they didn't want to go in that direction.

DR. CROSSON: I mean, I certainly don't think that it's overly prescriptive. If anything, it's the opposite, but that's the council's prerogative. If they don't want an overly prescriptive allocation decision tree, then that's what they're choosing.

MR. HADLEY: I did want to say that I do appreciate the discussion. This is an item that the council specifically wanted us to bring back to the SEP, and so thank you for the input and the thought going into it overall, and so they specifically wanted a targeted review of the social and economic components of this, and so I think we gave it to them, and so thank you.

MS. WIEGAND: We should also say thanks to -- This has not just been a Christina and John project, but Myra and Scott and Mike Schmidtke, as well as Chip, have helped us a lot, in terms of developing all of these questions and developing the tools that we're using to present it all to the council, and so it's been a team effort.

DR. CROSSON: All right. Well, this is actually a very good timing to finish our day, and it is 4:59, according to my tablet. Given the agenda tomorrow -- There's no schedule on the agenda right now that says if we start at 8:30 or 9:00, and do you all have a feeling as to which we should be starting at, based off of the remaining items? I don't know how long these things are going to take, and I'm looking at what's on the agenda for tomorrow.

It just feels like we've gotten a lot done today, and, right now, we have the best fishing practices outreach, and we have the red snapper, Amendment 35, and then the tilefish thing, and so do you think, if we start at -- We'll start at 8:30, and I guess that's probably standard, and that's not too early for staff, and, if we finish early, we finish early. Okay. We're done for the day. We're going to start at 9:00 tomorrow, and not 8:30, because that's when the webinar registration and everything is, and that's fine, and I think we'll get through the agenda in three hours just fine, and so, okay, all right. Tomorrow morning at 9:00 a.m. then.

(Whereupon, the meeting recessed on April 25, 2022.)

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APRIL 26, 2022

TUESDAY MORNING SESSION

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The Socioeconomic Panel of the Scientific and Statistical Committee of the South Atlantic Fishery Management Council reconvened at the Town and Country Inn in Charleston, South Carolina on April 26, 2022, and was called to order by Dr. Scott Crosson.

DR. CROSSON: We'll start with Number 6, which is best fishing practices, and so we have Ashley Oliver who is going to be joining us today, from council staff, and Christina is part of this as well, and so, all right, and you all take it.

## **BEST FISHING PRACTICES OUTREACH LEXICON**

MS. WIEGAND: All right, and so good morning, everyone. Before we really dive into this lexicon that was put together, I want to give you some background about what we're doing, in terms of best fishing practices outreach, and so the council was lucky enough to partner with the South Atlantic Sea Grants on an outreach project focused not entirely, but mostly, on best fishing practices, and it's sort of this really unique situation where, with the grant, each of the coastal Sea Grants was allocated sort of a small enough chunk of money that they couldn't really do a ton of outreach alone, but they chose to partner together and bring the council in to create a reef fish extension fellowship to address best fishing practices outreach up and down the coast.

Ashley Oliver, who some of you have met, but, if you haven't, I encourage you to come talk to her, is our reef fish fellow, and she's housed at the council office, and one of the things she's being tasked with is doing tackle shop outreach, and so up and down the coast and talking to tackle shops and staff there about best fishing practices.

We'll also be going out on charter trips, with hopefully some fishing influencers, as well as some outdoor writers, and so one of the things that Ashley put together, and it's up on the screen, and it looks nice, but let me be clear that I didn't do this work. Ashley is the one who has really done the legwork in putting together this lexicon to sort of help guide not just our outreach efforts through the fellowship, but sort of any outreach that staff is doing related to best fishing practices, and I don't want to, you know, sort of bore you by just reading through it, since this was in your briefing materials, but what it is is essentially a list of things we recommend that staff do when they're speaking with fishermen or speaking with the media about best fishing practices.

It's things like using correct language, and so avoiding the term "release mortality", or "discard mortality", and switching it around in a more positive way, to talk about improving the survivorship of released fish, using visuals, and, for us in particular, we're looking to not focus on venting as a means of barotrauma reduction, and we're really focusing on descending devices, since that's what required from the council, and making sure to use language that isn't sort of choosing a side, or pitting commercial versus recreational fishermen against one another, since discards are a universal issue.

Then making sure we're not lumping fishermen together in sort of a you problem, and it's a we issue that we're looking to address, and it's focusing on snapper grouper species for us, since those are the fish that experience barotrauma, and, of course, not showing favoritism towards any different type of descending device and knowing that fishermen know what works best for them, and so that's just a real quick overview. If you have questions about sort of these specific topics, Ashley is up here at the table, and she would be more than happy to sort of go over it with you, but we did, as a group, come up with some questions for the panel.

It's specifically looking at how we can present best fishing practices as something that ethical or responsible anglers do without sort of inadvertently offending fishermen or sounding unsympathetic to the practicalities of, you know, actively fishing on the water. If there are other key words, or jargon, that staff should be using when communicating with fishermen -- We don't

want to use overly technical language, and we want to make sure that we're speaking to them in parlance that makes sense to them, and then how staff can work on making sort of an immediate impression on tackle shops.

Luckily, we have Ashley, and she's going to be able to go up and down the coast, but she can only visit so many tackle shops so many times, and so we really want to be able to make that big first impression, and then how can staff help encourage those who are really influential in the fishing community to share information and partner with us, so that we can sort of move from the council spreading this message to having fishermen spreading this message to fishermen.

Like Julia mentioned yesterday, when she was talking about the citizen science program, one of the things that Ashley and Julia have been working on is this seminar series, with the one at Haddrell's tomorrow night, where we're partnering with local charter fishermen who are presenting information about effective bottom fishing, and then we're going to be able to come in at the end and talk to everyone who is present about best fishing practices and the council's Release app, and so ways that we can help foster that information, and so I will stop there, but, if you have any questions, both Ashley and I are up here and happy to answer them.

DR. SWEENEY-TOOKES: I love this. I was looking at this yesterday and thinking that this is really a great set of guidelines, as you start trying to approach these shops. I think the fact that you're going to shops in person is excellent, and I think that's the best way to find allies, rather than people who feel they're being imposed upon.

Several of your questions are about wording and positionality, and sorry to be anthropological, but who you are in this situation, and so my advice, in this situation, is always to start with questions, and, you know, is this something you've seen, or is this something you've experienced, and what do you all call this when this happen? What do you do, and what are your thoughts on this, and then you can decide then what are the words to use and what's the best way to approach it. Visuals are always an excellent idea too, and so good thinking. Videos, or even just laminated cards, in case your WIFI is not working.

MS. WIEGAND: What about making that sort of immediate impression? We give out, you know, materials, and we've got sort of little cards that we'll give out, rack cards, that they can set out, and we can give flyers that they can post up with all the other flyers that typically go in a tackle shop, but, given such a limited amount of time -- I mean, we can walk in there, and sometimes tackle shops have an hour to sit and chat with you, and sometimes you've got five minutes in and out, and so we've really got to sort of make an impression quickly.

DR. SWEENEY-TOOKES: So five minutes based on your timeframe or the busyness of their shop?

MS. OLIVER: Both, really. I mean, I'm just getting started, and so we're still testing the waters on how many places we can hit in a day, and I'm kind of looking at maybe six to ten shops in a day, but I think that might be a little too many, but, I mean, it just kind of depends. If they're interested, they'll talk your leg off for a while, and it's five minutes in, probably, and I think Bryan Fluech said that you can't make an impression on every single place, and you're not going to be best friends with them after five minutes, and so like what we can do to really have them put our materials out and give them to people?

DR. SWEENEY-TOOKES: Definitely listen to Bryan. He's done this very effectively for quite a while, but, like he's saying, you can't become best friends with everyone in five minutes, and so, if you can spend longer in fewer shops, they will talk to each other, and so you can make an impression on five people in a day, and you will effectively have made an impression on fifteen.

Something that I have found that comes up over and over when you're trying to talk to people, and they're doing business, whether it's been at farms or in restaurants, is be conspicuously respectful of the business, and so, if you're talking to them, and someone comes in, then say, oh, please let me step aside, and please go ahead and take care of them, or I see that you're busy, and I'm going to come back in ten minutes, so that they see that you respect that they're doing business there, and you don't want to get in their way, and I have found that that builds a lot of goodwill over time.

DR. CROSSON: I mean, they are -- The guys that work at tackle shops are just the most amazing interface with the recreational fishing community, because I have been in plenty of them, and they get asked questions all day long about regulations and tackle, the best places to fish, the practices to use, and they are just -- I don't know, and you can't even quantify how many people they probably speak to in a given year, and it's --

People go in and out over and over again, and the regulars, you know, show up, guys like my dad, who are retired, who like to hang around tackle shops and bug them some more about which tackle to use for different species, and so I'm glad that that's a prime group that you're trying to get ahold of. How you deal with them, like what Jen said about being very respectful of the fact that it is a business and they are, a lot of times, really hopping, and so trying to find out what is the slowest time of day to get in there.

DR. SWEENEY-TOOKES: Because I'm always looking for more qualitative data, you actually might want to start with what are people worried about, and, like Scott is saying, they're getting asked questions about regulations all the time, and so what are people asking you about, and what is it that people like, or dislike, about what we're doing right now, and they are a local source of expertise on this topic.

MS. OLIVER: We do have a list of questions that we are taking to these shops, but we don't have that one on there, and I think that is a great addition to bring back to the council, and so thank you.

DR. SWEENEY-TOOKES: If you start off by letting people tell you what they know, then your list of questions isn't quite so off-putting.

MS. WIEGAND: I guess the other big thing we're really interested in is this last question about identifying and encouraging those who are influential in the fishing communities to work with us. It's not a secret that, among fishing communities, the council itself doesn't always have the best following, or reputation, and so we -- One, we want to make sure the message is coming from those that are influential in the fishing community, but we also have to identify them and get them to work with us, and so sort of any suggestion on how we could go about both identifying and partnering then with those types of individuals, and that would be helpful.

MS. OLIVER: Or if you know anybody specifically, and we're happy to take names.

DR. CROSSON: I mean, the perfect intersection of the fact that it's a business, and it's also a distribution spot for fishing information, is the fact that they're probably selling a lot of the descender devices, and I would be very curious as to what they think about how to explain to fishermen -- I mean, they want to sell them. It's more tackle, and so there's an endless list of customers with more gear needs, and so I would be very curious as to asking them how they go about explaining how to use the device, the need for the device.

I mean, a lot of them are -- Aside from the question about their attitudes towards other sectors -- I mean, a lot of them do tend to be pretty pragmatic, and, also, at the same time, they're concerned about the resource, and I've had good experiences talking to them before how to use -- But, like I said, they're always trying to sell more tackle, and so every tackle shop that I've ever been in has just been crammed with gear coming out of every little corner of the place, and so which devices sell better, which ones are easier to explain, all of that, especially if you're trying to push on descender devices.

DR. SWEENEY-TOOKES: You already mentioned that you're doing this, but this is the perfect intersection for marine extension and Sea Grant to tell you where to go and which name to call and whether or not to say that Bryan sent me, or don't ever say my name in this place, and, I mean, they can give you the background.

DR. STEMLE: I was about to say that I would definitely emphasize the Sea Grant aspect of this, because commercial fishers, and recreational fishermen, and tackle shops seem to be much more trusting and willing and able to work with Sea Grant agencies and the extension networks, but, if the materials are plastered with South Atlantic Council stuff all over it, it's going to be a different story, and so, like Jennifer said, I would recommend going through the Sea Grant avenues, to find out who you need to talk to, and possibly bringing some of those people along with you, to talk with them and to serve as kind of like a liaison between the two. If you drag Bryan with you somewhere, you're going to get a lot more information than if you just go by yourself.

Second, with some of the utilizing some of the information, I am thinking things that can easily be given out and handed to fishermen when they're purchasing stuff at the tackle shops that some of these entities can just give away. Like, if they're in there buying bait, or buying hooks or something like that, if there's like a hard card that they can clip on their tackle box or something, with the best fishing practices, or, you know, information on -- If they're purchasing a descending device, if there's like a little hard card that comes with it on instructions on how to easily use it, or things like that, and small things like that, just having little trinkets and things, to quick reference, to look at, is extremely helpful.

Also, things with small children, and parents that bring their kids into tackle shops and want to, you know, teach them about fishing, and I still have one of my hard cards that I picked up at a tackle shop in Florida with my dad when I was a kid, and it's attached to my tackle box, and I've had that forever, and so things like that, that you necessarily wouldn't think make an impression, they really do on young anglers, and so I would say gear some of this towards educating young anglers, who will in turn educate their parents and promote it that way. I think the marine extension has had a lot of success with targeting children and anglers, and education and outreach is in that kind of -- It trickles up with older fishermen and things like that, and that's just my two-cents. Just

out of curiosity, like what times of day -- Are you guys going to tackle shops on weekends, or are you going during the week, like mornings or evenings?

MS. OLIVER: Mainly, it's through the week, and really the whole day. I went out -- I was in Beaufort last week, with Graham Gaines of South Carolina Sea Grant, and we tried to go to a store at I think it was like 9:30, and we're like, oh, it's closed, and they don't open until 10:00 or 10:30, and sometimes even just tackle shops, bait shops, they kind of make up their own hours, and they're there when they're there, you know, and so that's something that we're figuring out. It might not be an issue, but it's something we'll have to work with.

DR. ROPICKI: I was just going to add one quick thing. If you come up with materials that you're going to hand out, it might be a good idea to have -- If you're working with a state agency, to put their logo on it. When we did our rec angler survey, and we asked about information sources and which one they trusted the most, it was the state agencies, the FWCs of the world, and so --

MS. WIEGAND: I will say we do have some outreach materials that we're already using, and, if anyone wants to see them, I believe I have some of the little best fishing practices cards on me that we hand out.

DR. ROPICKI: Then I'm guessing you've talked to them, but the Return 'Em Right people. Okay. Just checking.

MS. WIEGAND: So this grant is -- The full grant is that broader grant with Return 'Em Right, and we just got a tiny chunk to do some South Atlantic stuff, but we are working closely with Nick Haddad and everyone at Return 'Em Right.

DR. SWEENEY-TOOKES: As you think about what materials you'll be giving out, definitely pilot those ideas with some of the tackle shops you've worked with, before you start ordering thousands of the product. Been there.

MS. WIEGAND: All right. Well, that's all we had for the group. Thank you. This input has been very helpful, and there's some new ideas that I've now got on my list that we hadn't thought about before, and so we really appreciate the discussion.

MS. OLIVER: Thank you. Thank you all so much, and it's good to meet you all.

DR. CROSSON: Thank you very much. Okay. Up next, Mike Schmidtke is up to talk about our favorite fish, red snapper.

### **UPDATE ON SNAPPER GROUPER REGULATORY AMENDMENT 35 (CATCH LEVELS FOR RED SNAPPER AND REDUCING DISCARDS)**

DR. SCHMIDTKE: Thank you. I'm sorry that I did not review the previous document before making this presentation, and I'm about to use a lot of no-no words.

DR. CROSSON: I think I used a lot of those yesterday myself, and so --



DR. SCHMIDTKE: But we'll get through okay, and so, right now, the council has kind of begun the initial work for a regulatory amendment, and this is Reg Amendment 35, and it's focused on reducing snapper grouper release mortality and revising the red snapper catch levels so that they coincide with the most recent SSC recommendations.

This presentation is really going to be more of an update on kind of the current events, and you will see, at the final slide, that we're not looking for specific feedback from the SEP, but just kind of a heads-up that this is going on, and we will probably come back to you in a future meeting to get a bit more in-depth feedback, but I can answer questions, or we can take comments to the council, as you guys have them, if you have them today.

As a bit of background review, SEDAR 73 was the last assessment of red snapper, and it determined that the stock in the South Atlantic is still overfished, and overfishing is still occurring, and some of the notes coming out of that assessment were that the stock is making progress towards being rebuilt, and the estimated -- I think that might actually be abundance, and I'm not sure, and I would have to look at that chart again, but there is a large amount of abundance of red snapper, but the biomass hasn't quite reached the level for it to be declared not overfished any longer, and so there's also a recent increase in the recruitment of the stock that has happened, and this kind of corroborates some of the anecdotal information that fishermen have reported of high red snapper abundance that they're observing on the water.

We have this assessment that came out, and one of the issues for red snapper is that the greatest source of fishing-related mortality is from the release mortality rather than the landings, and this is despite the reduction in release mortality rate that has been included in the assessment information from the increased use of best practices, including the requirement of descending devices, and so we have this situation right now where there is a very short season, and, at this point, it's only been one weekend, a very short season, with an increased amount of abundance.

Red snapper is closed in areas where there are other snapper grouper species that are open, and so there's a lot of encounters with red snapper when they are out of season, meaning a lot of fish have to be released, and there are a lot of those -- Of those fish, there is a large number that end up dying after the catch-and-release. There has been an improvement on the rate, but the sheer number of fish that are being caught and released is kind of offsetting the improvements that are made on the survival rate.

This is an issue that is not specific only to red snapper, and this is something that is affecting the snapper grouper species really as a whole, and this figure that you see here shows the recreational harvest release and the percent of the catch released for all fifty-five of the snapper grouper species, and this was part of a presentation that John Carmichael gave at the last council meeting, and Chip helped him put together the information that's here.

What we see here is that, across the fisheries, since the early 2000s, harvest has remained about the same, kind of hovering around ten-million fish. The black line is the percent of the catch that is released, and so you will tie that black line to the right axis. The yellow that you see at the bottom, those are the landings, and then the dark blue are the number of fish that are released, and so we see that harvest has remained about the same. However, the released fish, and the overall catch, have increased. The released fish have increased from about twenty-million fish, in the early 2000s, to about thirty-million fish by 2020.

The percentage of catch has also increased, from about 70 percent in the early 2000s, and, in the more recent years, it's now approaching 80 percent, and, to kind of frame these data relative to harvest levels, if the fishery-wide average release mortality rate of 33 percent, and so one out of every three fish that are released would die, which is within the realm of observed numbers for the fishery, and it's an underestimate for some and an overestimate for others, but, if that were kind of the across-the-board average, then the number of fish that are counted as dead releases would be equal to the number of fish harvested.

This problem, in magnitude, really is not a small one for the snapper grouper fishery, and reducing the number of fish that are dying from catch-and-release, even in a partial fashion, could have substantial benefits for the fishery, in terms of increasing the number of fish available for harvest.

DR. STEMLE: Is this across all sectors?

DR. SCHMIDTKE: This is the recreational sector. Then another portion of this, for it not just being red snapper, and so looking across the species within the fishery, and, again, recreational information, and we identified species that are relatively highly impacted and would be most likely to benefit from a reduction in those dead releases. What we were looking for, in comparing these species, is a fairly sizeable fishery, but that also has a pretty high proportion of releases, and so there were criteria developed, and the data for each stock were evaluated from 2000 through 2020.

The species that are identified on the screen fit all of these criteria, and so at least 50 percent of the catch during that timeframe was released, and the cumulative releases over that timeframe were at least 500,000 fish, and the cumulative harvest over that timeframe were at least 500,000 fish, and so trying to kind of weed out the incredibly small fisheries and trying to weed out those fisheries that have low percentages of released fish.

Based on these criteria, eighteen species were identified as these high-impact species, and you see them there on the screen. This group accounts for 93 percent of the snapper grouper recreational harvest and 99 percent of the snapper grouper recreational releases. Nine of these stocks have been assessed, and those are shown in bold, and three of the stocks are overfished, and those are the ones that are highlighted, and you can see kind of our topical species, red snapper, sitting right there. Again, while red snapper is front and center of this amendment, because we're coming off of a red snapper assessment, the overall issue is larger than red snapper, and any type of way to address the red snapper discards is likely going to have effects that reach beyond that species alone.

We've seen that, and we've kind of come out with this bit of summary of the problems that we're trying to address through this amendment, one of them being that red snapper release mortality is too high, and so we've addressed the rate, and now we're thinking about the numbers of fish related to this, and so this high release mortality -- It limits the number of fish available for harvest, and it also limits the number of fish available to rebuild the stock, to continue that process, because we're still working through that rebuilding timeframe as well, and, from the standpoint of the fishery, it's very frustrating for fishermen that are observing high abundance, and, remember, they're operating within their perspective, and many of them -- If they've been fishing within the last twenty years, this is the highest abundance that they've ever seen in their lifetime, and it's very frustrating for them to observe a high abundance that is inaccessible to them.

There is also the issue that ties right into that, that snapper grouper releases are high, and this is reflecting a low amount of efficiency within the fishery, and this can impact the catch limits and the rebuilding timelines for species other than red snapper as well.

There is kind of a twofold response that's being worked on right now, and one piece of that is a longer, larger-scale consideration of changes to the snapper grouper fishery, and that's something that Chip alluded to with that management strategy evaluation process, and that's going on right now, and as Chip alluded to, we'll be talking through that with you all in future meetings, and that's going to be working on that for several years.

In the shorter term, there is still the requirement to end overfishing for red snapper, and we're in this situation where ending overfishing is likely not accomplishable by simply changing the ACL, and so, if there's actually going to be a real effort from the council to end overfishing, then there's something that is going to need to be done about the dead releases within the fishery, and so that's what is trying to be addressed through Regulatory Amendment 35, implementing some measure, and, right now, that's where we are.

We're in the place of implementing some measure to reduce the number of dead releases within the fishery, and there has been talk, to this point, of time or area closures, and there has also been talk of gear modifications and changes, and, right now, everything is still kind of on the table, and it's very open at this phase, and we're hoping to narrow it down, in the near future, to keep moving this document along.

Kind of in concert with that, one of the goals of this is for the fishery overall, but, specific to red snapper, there is also the motivation from the council that, if there is a regime shift, if you will, a changing of the assumptions for future years that comes from this change in the dead releases, from this new policy, this new measure, whatever it ends up being, and we're able to estimate that and include that in the projections of red snapper into the future, then there would be a request from the council of reconsideration of the ABC recommendation, based on the change in the estimated number of dead releases for that fishery. The goal is to put in a measure that would kind of have a different future situation, and that would necessitate a change in the assumptions that are surrounding the current projections.

As I said, the council is considering temporal, spatial, or possibly depth-based closures, of multiple snapper grouper species, and, at the time that this was made, I wasn't totally sure if gear modifications were on the table, and it seems that they are still on the table, and there is still some consideration, and so there may be multiple things of these natures going on all at the same time in whatever gets developed here.

Right now, staff are data gathering, so that the council can develop these options a bit more in the June meeting, and then, kind of a later step, there will probably be a request of you all to provide some input on the social and economic implications of the options that the council is considering, and that's the last slide, or I guess second-to-last, but the last of information, and I will take any questions or comments at this point. Again, there is no specific questions of you all, and this is just kind of an update of something down the road that we'll be looking for input from you all in the future on.

DR. CROSSON: Are any of you aware, offhand, of the difference between the recreational consumer surplus for a retained reef fish, versus a discarded one, and also for one that is discarded and potentially witnessed to die, right, which I can actually see as a -- I would be curious, because I actually have experienced that as a negative thing, when I've pulled up a fish, and tried to get it back in the water, and watched it float away and just die, and I wish that I had never caught the fish, when that happens, and so I would be really curious as to if anybody has ever done any studies to that effect. I know that, a caught-and-released pelagic fish, there's a pretty significant value for a lot of them, and it's considered to be pretty sporting, versus pulling something off of a reef, and so it's something definitely for potential research.

DR. WHITEHEAD: How often does that happen, what percentage of alive? Someone needs to do that study.

DR. SWEENEY-TOOKES: I can't speak to the economic value of it, but I can tell you that I've heard the story over and over and over and over and over again, and that frustration, and that sense of why are we even bothering, as they watch it be eaten by a shark, the minute it's put back in the water, and so, from a human perspective, it's rough.

DR. CROSSON: I would just -- I recognize that this is early on in the process, but, when this eventually comes to -- When options are considered by the council, I would hope that the economic information that's in there, and the social as well, but would be comparing some of the problems of the current fishery and some of the negative costs of those and the economic inefficiencies they're causing, compared to whatever the other alternatives are, because I constantly hear this question about the negative impact on communities of not having enough quota out there, but I also think there's certainly a negative one for the consequences of a lot of these management actions that have been causing that problem that you saw in the earlier graph, which I think is just a very illuminating graph. I am not usually crazy about ones that have the double Y-axis, but I definitely understood what was going on with that one.

MR. HADLEY: Just to kind of orient you to where we are on the social and economic information front, I mean, as Mike went over, it's very early in the process, as far as narrowing what exactly is going to be done in this amendment, and so we're more so kind of gathering information from previous amendments, and the council recently took a deep dive into the two-for-one provision for the commercial snapper grouper permit, and so there's various kinds of bits and pieces of information out there that we're trying to bring together, but, you know, now, or when the report is being written up for this SEP meeting, if you can think of any case studies, particularly recreationally, on some of the implications, from implementing a season, area closure, depth closure, that sort of thing, and we would certainly welcome any additional information on that front.

DR. CROSSON: So this is basically just an informational presentation, and you're not looking for anything in particular from us for this? Okay. All right. We are running very far ahead of schedule, but, I guess, if we don't have any other questions for Mike, and he doesn't have any for us, then I guess we're done with this. We'll take a five-minute break here, because we have time to.

(Whereupon, a recess was taken.)

## **SOUTH ATLANTIC COMMERCIAL GOLDEN TILEFISH FISHERY**

DR. CROSSON: We're going to resume here for our last item on the agenda, and I wanted to get a little bit of feedback from the group, and we all love applied economics and social science, and so, actually, I probably should put Tracy Yandle on here as well, and so this is basically -- This is an article that is still at Marine Resource Economics, and so I would also encourage you to Josh Abbot and tell him to just finally accept the thing, but the article -- Tracy Yandle and I wrote this a couple of years ago, and, basically, we're just trying to grab an overview of how the tilefish fishery operates, the longline tilefish operates, in both the South Atlantic and the Gulf of Mexico.

That's the full title of the article that is currently at MRE, and so what we wanted to do -- The reason we wanted to do this was there's a lot of frustration by the tilefish guys, because they have a derby in the South Atlantic, but one of the things we noticed is that -- This SEP I think actually weighed-in before the endorsement of the golden tilefish -- Like the way the golden tilefish is managed in the South Atlantic right now is quite different than the way it is in the Gulf.

The Gulf moved to ITQs for the tilefish and grouper fisheries around 2009 or 2010. They did red snapper a few years before that, and then they moved to ITQ management for that fishery, and then, around the same time, the South Atlantic tilefish fishery -- They already have to have a snapper grouper permit, but they added this special endorsement to I think it was twenty-two permits in the South Atlantic that basically -- It was roughly that, the low twenties, that allows you to longline for golden tilefish.

Both of those things came in around the same time, and so Tracy and I wanted to look at the 2009 -- The pre-data, which is the last year that both of them were basically still covered under their general reef fish or snapper grouper fishery, versus 2016, which was -- Because we had some pretty good analysis showing what had happened, and so we were looking at that seven-year period and seeing what changes have happened, and so, technically, I guess it's differences in differences analysis, but it's a real simple version of it, and we didn't get real complex with this.

Both of these fisheries, one of the things we noticed about it, with golden tilefish, is they both had around the same amount of landings, and so maybe like 400,000 pounds or something like that, and they both have -- They use the same gear, and the latitude -- Of course, the South Atlantic has slightly higher latitude, as you go further north, but mostly this fishery is operating off of the same latitude on both coasts, and, to some degree, and I think Andrew said he was working on something, but the markets for these fisheries must overlap, especially since they're prosecuted on both sides of the Florida peninsula.

There is twenty-two endorsements in the South Atlantic. The way that they're managed every year is that they have a combination of very tight trip limits, along with a seasonal closure, once the quota is hit, and that seasonal closure has been happening really early in recent years, and they haven't even made it to Lent, right, and so, a lot of times, it's been closing -- Sometimes I guess even in late February maybe one year they got to it, but I know that definitely in March and April it's usually closed for the rest of the year.

If we go to the Gulf, they use an ITQ, and that comes along with some gear restrictions, and then there's the 12 percent share cap overall on the amount of quota that any particular entity can hold,

and so you can see that the landings -- On this side, a lot of them are kind of spread around the northern side of the Gulf.

After I complained about a big, giant table, I have a slide with a big, giant table, and it even says "draft" behind it, because this was actually coming out of the draft that's at MRE right now, that will hopefully be accepted, but, if you spend a few minutes -- I basically showed you the raw landings, the changes, and all of these different variables, but one of the big things to highlight to your attention is you can see that both the Gulf and the South Atlantic, in the first part, under Sustainability, both of them had a 38 percent increase in their quota over the same time period, and it's slightly different bases, but both of them -- The fishery is not -- As we saw on the South Atlantic SSC, tilefish, golden tilefish, is not overfished, and overfishing is not occurring, and so both fisheries seem to be relatively stable, from a biological standpoint.

The aggregate landings, however, in the Gulf, for golden tilefish longlining have decreased. Now, the reason for that, the reason that the South Atlantic is utilizing all of it, pretty much, and the Gulf is not, is that it's part of a much larger multispecies fishery on the Gulf side now, and it was like that, to some extent, before, but the South Atlantic has really become very focused. The season opens, and, because there is pressure to catch the quota, and utilize all the quota, before it runs out, you have a derby atmosphere, and guys are going out and hitting golden tilefish exclusively, as fast as they can, as fast as the trip limits allow, whereas, in the Gulf, they have basically the entire year to catch it, and it's part of a lot of other species that they're catching.

Now, the fishing effort, the number of vessels that are actually active and engaged during the fishing year increased in the South Atlantic. Basically everybody that has a permit uses it in 2016 on the South Atlantic side, but not everybody that has the ability to use it on the Gulf side did, but the days-at-sea increased pretty substantially on the South Atlantic side. They have gone up 38 percent, okay, and they didn't really change on the Gulf side.

What did happen is that the Gulf season length, like I said, extended pretty significantly, okay, and then, in terms of the amount of revenue, you can see, again, and, again, this economic value stuff is a little difficult to look through, but the South Atlantic price and the Gulf prices both went up, but the amount of revenue per vessel went up dramatically in the Gulf of Mexico versus the South Atlantic. It went up 153 percent, versus, on the South Atlantic -- So, basically, the Gulf guys are getting a much higher amount of value overall from golden tilefish than they are in the South Atlantic, because they have the entire year to catch it.

Then the last one, the Gini, the Gini coefficient, which is just a measure of concentration in the fishery, pretty much stayed the same in the Gulf of Mexico, and it was actually relatively high. The combination of trip limits and the derby atmosphere in the South Atlantic have pushed the South Atlantic golden tilefish longline fleet into parity, more or less. A 0.3 Gini is a pretty evenly distributed amount of landings, and so, basically, you're just looking at the level of concentration that you have for golden tilefish per vessel, and most of the vessels in the South Atlantic are catching about the same amount of fish every year, because they have to, because you have a derby and because you have these tight trip limits.

If you flip to the next slide, this is coming from Christopher Liese's analysis, which we went over a few years ago, and it's difficult sometimes to drill down to this level in Chris's data, because we only sample portions of the fishery, but the net revenues in the Gulf of Mexico have gone up

significantly, compared to the South Atlantic, but they're still extracting rents, or quasi-rents, in the South Atlantic.

It's not that the fleet, when they catch golden tilefish, is not getting any value out of it. Despite the derby, despite the trip limits, they are making profit, a significant amount of profit, and they actually have a larger percentage of the landing revenue is going to the crew in the South Atlantic, probably because, the way that a lot of fisheries operate in the Southeast is that you actually -- The crew gets a portion of the revenue after costs are subtracted, and there's a significant amount of leasing that's happening under the ITQ system in the Gulf of Mexico that doesn't have to happen on the South Atlantic, and so the crew gets a higher proportion of the revenue on the South Atlantic side than in the Gulf, and they also get more revenue per day, when they're out there fishing, but the flip side of that is that the season is so compressed, and so they have to find something else to be active in the rest of the year, and so this is basically only for the first quarter of the calendar year that they're able to go do this.

I don't know if I have any other slides after this, but the conclusion, looking at this, is that these changes of management in the South Atlantic versus the Gulf -- The Gulf has eliminated the derby that they had before, and the South Atlantic has not. Gulf trips are much longer and fewer, compared to the South Atlantic, and that's probably one of the reasons that they're getting a higher price per pound in the South Atlantic, is that it is a pressure product, and they've actually changed the way that they market a lot of this stuff, but the days-at-sea have increased significantly in the South Atlantic, because they have the trip limits, and they have to go back and forth. The Gini coefficient went down in the South Atlantic, because of the regulatory environment, and it did not in the Gulf of Mexico.

What this means for management in the South Atlantic is going to be up to the fishermen to look at, okay, and I wanted -- Mike Travis and I want to speak to the golden tilefish fishermen, because they are still upset about the derby, and they're still trying to -- I listened to the AP meeting, and the people that were in the AP meeting last week were not members of that fishery, but they were understanding -- I think maybe at least one or two people were, because there was some discussion, I remember, talking about Lent and trying to time -- They were still trying to fine-tune when they could get that season, but they still have to deal with the derby overall, and they keep running out of quota.

If they don't want the derby -- I mean, again, this is different than a lot of the other snapper grouper fisheries in the South Atlantic. I don't consider this fishery -- Economically, it's got some inefficiencies, but they're still extracting significant rents from the fishery. Not to the extent that the wreckfish guys are, but they're making an amount of money, compared to some of the other fisheries in the South Atlantic that are definitely problematic.

How they're going to deal with this, you know, I think this is something that I would like to discuss with them. If they want to get rid of the derby, one thing that, if they did decide to move to something that's more akin to the Gulf, is that, because the Gini is relatively low, I don't think the distribution of initial shares for an ITQ would be quite as problematic as it might be for some of the other fisheries, and, you know, I don't even know if would have to be transferable, if they were willing to go down that road. They might want to consider just splitting equally up the quota every year between the permit holders and allowing people to go out and fish it whenever they want, but I think they have a lot of different options.

Like I said, there is definitely some benefits between the way the South Atlantic is managed versus the Gulf, because the crew does get a higher percentage of the revenue, because quota is not being leased, but they have to balance that out with the fact that the season is so compressed, and it's definitely affecting the way that they have to operate, and they seem relatively unhappy with that, and so this is what we're going to approach.

John had something up there, and I think this is the last slide for this, right, and there you go. This is what I just said, basically, that the South Atlantic prioritizes a shorter season with more short-term pay, whereas, in the Gulf, it's a part of a much larger reef fish complex and a year-round fishery that has a more predictable year-round income, and so what were the questions that you guys had on here?

MR. HADLEY: We just had a few sort of general questions, sort of almost really brainstorming at this point, because this is a meeting that is really planned for the fall, overall, of the endorsement holders, and so what topics could lead to improved social and economic outcomes for the fishery, and so the idea is to go to them and say, you know, what we can we do to improve, potentially, the economic and social outcomes of the fishery, looking at management measures that could lead to an improvement in economic performance, and so increased revenue, reduced costs, any sort of management measures that could improve dockside prices overall.

Then, on the social and equity side, looking at anything that could help with the distribution of profits, and so crew wages and wellbeing, and improvements for safety-at-sea and resilience and diversification, and so the idea here is really to ask the endorsement holders what, from a management perspective, may lead to better outcomes, from a social and economic perspective, in your fishery, and so that's kind of where we've started right now.

As I mentioned, it's sort of very early in the process, and this is something that's likely to occur later on this fall. I will mention that the council does have an amendment, a golden tilefish and blueline tilefish amendment, in the works right now that is kind of going along parallel to this effort.

One of the -- In the discussion at the Snapper Grouper AP meeting, that Scott alluded to, there was talk of delaying the start of the season a little bit, to get into that Lent period, and sort of the Easter period, where they're seeing some better prices, and, also -- I mean, some of the discussion went along the lines of, if you delay the start date a couple of weeks, it helps out with just general wellness, wellbeing, with getting through the holidays and then kind of having a couple of weeks to get your boat and your gear ready to really hit the season hard, so to speak, for when the golden tilefish longline opening would occur. With that, I will turn it back over to you, Scott.

DR. CROSSON: Again, for general feedback on this fishery, and I have no idea, and I've never met with the tilefish guys before, and so hopefully we'll be meeting with them in the fall. Whether what they want is just to shift the season a little bit, I don't know. Setting start dates, to begin with, and trying to time this thing I think has been problematic, based off of what has happened in the past, and so, you know -- Again, I'm not sure if you guys have any feedback for this.

DR. WHITEHEAD: When you meet with them, do you show them this research?



DR. CROSSON: Yes, and I don't think that I will throw a table up there the way I threw it at you, but, yes, and I would want to focus in -- I think -- I have to find a way to explain a Gini coefficient to a group of fishermen, and I think I probably could do that with just sort of mean and median and looking at the average landings per vessel, rather than have to show them a Gini coefficient, because most people are not going to know what that means.

MR. HADLEY: Kind of just to make it clear where the discussion is going with the shareholders, it's not to say -- It's basically not to get out in front of the endorsement holders or the council on this, to say what sort of management changes does the SEP recommend, and that's not really the intent. If they want to have a major shift in the fishery, that's something that certainly would come from the council and from the endorsement holders, at the moment, and so that would be sort of that -- That's the direction that would go, overall, but, on our end, from a staff perspective, we're thinking more of general questions to pose to them, and then certainly let the endorsement holders and the council take it from there.

MS. BROUWER: Just to add a little bit more background, we are currently working on an amendment that is going to increase the ABC and ACL for golden tilefish, and so that amendment is being prepared, and the council has given us direction to bring the longline endorsement holders together, likely in the fall of this year, and they -- The AP, has Hadley said, suggested, or requested, also reiterated, that they wanted to get together specifically to look at alternative ways to manage the longline fishery, and so that was just a little fill-in-the-gaps there.

DR. WHITEHEAD: Sometimes it's hard to be on the SEP when you're not on the SSC, and these issues come up once a year, and I remember the golden tilefish is -- It's a unique fishery, right, but it sounds like an exciting time to be managing golden tilefish.

DR. ROPICKI: Just a quick question about the Number 1 there, the management measures that could lead to improvements in economic performance, and is reducing costs really an option? I mean, I guess, maybe globally, across their entire portfolio of landed species, but, I mean, they're not going to take longer trips, because, in the Gulf, tilefish is a subset of the deepwater grouper fishery, and they just kind of go with whatever deepwater grouper is doing, but it seems like there is nothing right now -- I mean, they do have a derby, but there is nothing shortening their trips, right?

DR. CROSSON: They have the trip limits, and the trip limits, right now -- At least one member of the council brought up, at their last meeting, the fact that -- This is not particular just to this fishery, but the sudden spike in fuel costs this year, and this has caused significant problems with any kind of trips limits in the snapper grouper fishery, because that's the biggest input, right, and so anything -- I mean, reducing costs, reducing costs per pound of fish landed I guess is a better way of putting it, right, but trying to find a more efficient way of landing, and so anything that can get away from trip limits, and we -- The SEP has brought up before, years ago, that any analysis that goes into a council proposal that is trip-limited related is problematic, because the price of fuel can fluctuate, and that's the biggest input, and it usually will fluctuate faster than the council can amend any kind of regulation, and that's my answer, and I don't know.

DR. ROPICKI: I think it's a neat analysis, but I would be interested to see what it looks like when you compare it to something that seems like it should be completely different, for red snapper, and, I mean, that's a directed fishery in the Gulf, when it went to ITQs, whereas, you know, tilefish

is, like I said, a subset of the deepwater grouper fishery, and it would be interesting to see how those trip level stuff changed and what it could mean for the South Atlantic, if they consider that.

DR. CROSSON: From a research perspective, there's a lot of fisheries that it would be interesting to do this in, just because there is so many -- Instead of doing the before and after analysis, doing one where you compare across the two regions, because they're both -- I mean, there are so many things that are held constant, market overlap, same country, same regulatory system overall, legally, and so --

DR. WHITEHEAD: On the paper itself, you just look at 2009 and 2016 and not the years in between?

DR. CROSSON: We did do some of the years in between, and it got pretty complicated, and we were told to trim the paper down, and we trimmed the paper down, and so, whether we trimmed it too much, I don't know.

MS. BROUWER: So do the golden tilefish ITQ guys in the Gulf -- Can they longline for other species?

DR. CROSSON: Yes, and it's part of -- It's caught with -- Andrew, if you want to answer it some, but I know they catch it with yellowedge and blueline tilefish, and there's another one that --

DR. ROPICKI: There's goldface, and I don't remember all the names, but, yes, it's a complex, and it's like how they do shallow-water groupers, and your deepwater grouper as well, but yes.

MS. BROUWER: I was just thinking that our longline endorsement holders can't longline for things other than tilefish, and they have to switch out the -- They have to take the thing off their boats if they want to --

DR. CROSSON: Yes, and I would think, if there was something introduced in the South Atlantic side, I would not expect, in any way, shape, or form that it would mimic what happened in the Gulf. There is big geographic differences in the way that the bottom is set up, and there's just -- I would be surprised -- I wouldn't expect thirteen-day trips in the South Atlantic on any snapper grouper fishery, because of the way that everything is, but it would get away from the constraints that trip limits and the derby are putting on the fishery, and so that I would be pretty sure would go away, if there was some system where you could allowably fish your quota whenever you needed to, rather than the frustration of trying to constantly figure out that, well, we can move it up by week, and how about this, or we can move it up by one more week, and how about this, and, if we change the trip limit by 500 pounds, does that shift the calculus of whether it's profitable or not? This year, you look at the fuel-prices spike, and all of the analysis gets thrown out the window before you even discuss it. All right, and, well, I'll keep you all posted on how things progress, and I'm glad that John is excited about it.

DR. SWEENEY-TOOKES: I have been really quickly skimming the AP meeting report, the fishery management report from the last blueline tilefish, and it will be interesting to see what reactions you get. Things are really all over the board in this fishery performance report.

DR. CROSSON: Okay, and so I guess we're done with that item. What do we do now? Do we have more public comment? I need to look at the agenda.

MR. HADLEY: If there's any other business, we could address that, and then any public comment after that.

DR. CROSSON: Is there any other business before the SEP that anybody wants to bring up? No? Okay. Then we have an opportunity for public comment. I don't see anybody here, but is there anybody online?

MS. WIEGAND: If you're online, and you would like to make public comment, you can go ahead and raise your hand. Again, it's that turkey-looking thing that's next to the webinar interface.

DR. CROSSON: Mike Travis. Not exactly the public, but I would like to hear from Mike.

### **PUBLIC COMMENT**

DR. TRAVIS: I wanted to clarify a comment, and I'm not sure who made it, but, Scott, it was with respect to the discussion on your presentation, and did someone say that the longliners can only longline for golden tilefish in the South Atlantic, because I thought that's what I heard, but I know that's not true.

MS. BROUWER: Mike, you're correct. They can longline for snowies, blueline, yellowedge, and maybe something else.

DR. TRAVIS: Yes, and so golden, blueline, snowy, yellowedge, and those are -- I mean, that makes up probably well over 95 percent of their harvest, and I just wanted to make it clear that they do have a portfolio of fish that they do target, and, in fact, if memory serves, that was illustrated in some work that Kari MacLauchlin did for the council a few years ago, and I don't think that that has changed. I would also point out that there's at least a few of those guys who also participate in the wreckfish fishery, and they have made that point in the past, when we've had meetings with the wreckfish folks. That was it.

DR. CROSSON: Yes, and at least one of them pointed out to me that, when they finish up with golden tilefish, because they have the wreckfish ITQ, they're not in a rush to go to get wreckfish, and they can just go catch wreckfish whenever they're ready for it, and so, okay. All right. Thanks, Mike. In terms of report writing, please type up notes for the stuff that I asked you to, and try and send it to me this week, and definitely by the middle of next week, and it would be nice if I could have some comments back.

Because we're meeting right before the SSC meeting, I'm not going to try and pull the report together and have it finalized before the SSC signs-off on it. The SSC will have to sign-off on it through email later on, but then it would be incorporated into the SSC report, as it normally is, and given to the council, and then I guess the next SEP meeting will be next year, in Charleston again, right?

MR. HADLEY: Yes, and I think the next major meeting, but there might be an item in the fall for the SEP, with the snapper grouper MSE, and we'll see how that goes, but kind of a question-mark there, and that would be more of a short webinar, but, yes, the next major meeting would be next spring in Charleston.

DR. CROSSON: If you know any other -- Since we seem to have lost some membership in recent years, and people have until the end of this week to apply, and is that right? Is that what I heard?

MR. HADLEY: Yes, and thanks for bringing that up. We do have -- Applications for the SEP are open through the end of this week, and so, if you know anyone that is interested, please have them apply, and so the council will be addressing the applicants at their June meeting, and so, essentially, that's when the decision will be made on who is going to fill an open seat, and we'll go from there.

DR. CROSSON: Okay. We have no other items, and I guess the meeting is concluded. Thanks.

(Whereupon, the meeting adjourned on April 26, 2022.)

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Transcribed By  
Amanda Thomas  
June 21, 2022

# SSC Socio-Economic Panel Meeting (April 25-26, 2022)

## Attendee Report:

Report Generated:

04/29/2022 07:54 AM EDT

Webinar ID

973-698-587

Actual Start Date/Time

04/25/2022 01:00 PM EDT

Duration

4 hours 4 minutes

## Attendee Details

Attended	Last Name	First Name
Yes	BROUWER	MYRA
Yes	Bianchi	Alan
Yes	Bonura	Vincent
Yes	Carmichael	John
Yes	Carter	David
Yes	Chaya	Cindy
Yes	DeVictor	Rick
Yes	Dietz	David
Yes	Guyas	Martha
Yes	Hadley	01John
Yes	Helies	Frank
Yes	Iberle	Allie
Yes	Iverson	Kim
Yes	Klasnick	01Kelly
Yes	Lovell	Sabrina
Yes	Marhefka	Kerry
Yes	McPherson	Matthew
Yes	Mehta	Nikhil
Yes	Murphey	Trish
Yes	Records	David
Yes	Sedberry	George
Yes	Smillie	Nicholas
Yes	Travis	Michael
Yes	Wiegand	01Christina
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Yes	vara	mary

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*Shep Herries*

*add  
to  
minutes  
Dr. Alexander  
Hicks  
(Present)*

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# SSC Socio-Economic Panel

## Attendee Report: Meeting (April 25-26, 2022)

Report Generated:

04/29/2022 07:55 AM EDT

**Webinar ID**

973-698-587

**Actual Start Date/Time**

04/26/2022 08:29 AM EDT

**Duration**

1 hour 56 minutes

### Attendee Details

<b>Attended</b>	<b>Last Name</b>	<b>First Name</b>
Yes	BROUWER	MYRA
Yes	Bianchi	Alan
Yes	Bonura	Vincent
Yes	Chaya	Cindy
Yes	Curtis	Judd
Yes	DeVictor	Rick
Yes	Dietz	David
Yes	Glazier	Ed
Yes	Guyas	Martha
Yes	Hadley	01John
Yes	Helies	Frank
Yes	Iberle	Allie
Yes	Klasnick	01Kelly
Yes	Marhefka	Kerry
Yes	Mehta	Nikhil
Yes	Murphey	Trish
Yes	Records	David
Yes	Smillie	Nicholas
Yes	Travis	Michael
Yes	Wiegand	01Christina
Yes	thomas	01suz
Yes	vara	mary

Attendance: 4/26/22

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