

SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL

CITIZEN SCIENCE COMMITTEE

**Hilton Garden Inn/Outer Banks
Kitty Hawk, North Carolina**

December 6, 2018

SUMMARY MINUTES

COMMITTEE MEMBERS

Mel Bell, Chair
Tim Griner
Spud Woodward
Art Sapp
David Whittaker

Dr. Kyle Christiansen, Vice-Chair
Chester Brewer
Dr. Wilson Laney
Steve Poland

COUNCIL MEMBERS

Chris Conklin
Anna Beckwith

Jessica McCawley
LCDR Jeremy Montes

COUNCIL STAFF

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Mike Collins
Dr. Mike Errigo
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Dr. Brian Cheuvront
Myra Brouwer
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Christina Wiegand
John Hadley
Roger Pugliese
Amber Von Harten

OBSERVERS/PARTICIPANTS

Shep Grimes
Monica Smit-Brunello
Dr. Erik Williams
Dewey Hemilright
Tony Dileria

Dr. Jack McGovern
Dr. Clay Porch
Rick DeVactor
Erika Burgess
Nik Mehta

Other observers and participants attached.

The Citizen Science Committee of the South Atlantic Fishery Management Council convened at the Hilton Garden Inn/Outer Banks, Kitty Hawk, North Carolina, Thursday morning, December 6, 2018, and was called to order by Chairman Mel Bell.

MR. BELL: In the interest of moving us along, and with the Chair's permission, I am going to go ahead and get us started here, and so we'll convene the Citizen Science Committee. Just for everybody's clarification, the members are myself, Kyle Christiansen, Robert Beal, Chester Brewer, Chris Conklin, Roy Crabtree, Tim Griner, Doug Haymans, Wilson Laney, Steve Poland, Art Sapp, David Whitaker, and Spud Woodward, almost everybody.

The first item on the agenda is Approval of the Agenda. Are there any modifications to the agenda? Does anything need to be added? Seeing none, any objections to approval of the agenda? Seeing none, then the agenda stands approved. The next item is Approval of the June 2018 Committee Minutes. Are there any modification, edits, or changes needed to the minutes? Seeing none, is there any objection to approval of the minutes?

Seeing none, then the minutes are approved, which takes us to Item 1, which we'll spend most of our time on, I'm pretty sure, and I know we are standing between us and lunch at some point, and so we're going to move along through this as quickly as we can. Recall that I had kind of asked you guys to just take a look -- We're going to go through the SOPPs, the draft SOPPs, and our objective here would be to be able to perhaps approve those today, to get us up and running, and so, saying that, then I will turn this over to Amber and let her drive.

MS. VON HARTEN: All right. Thank you, Mr. Chairman. I am going to be toggling back and forth between Attachment 1 and Attachment 2. Attachment 1 is the actual draft SOPPs that I've asked you guys to review, and then I prepped the additional document, Attachment 2, to kind of draw your attention to some specific areas of the SOPPs that we need some feedback on, and there is some discussion questions that go along with those specific areas, and those are also in your agenda overview, and so, if you need to refer back to some of those discussion questions, you can do that as well.

Again, the SOPPs is kind of the culmination of the last year of work, of working with our five Citizen Science Action Teams, to help us develop some of the different program components that we felt were going to be necessary to support not only the program, but also projects that fall under the program, and then, of course, we had our Operations Committee that met back in August that helped us kind of draft up these SOPPs, and so these have been reviewed by all of the A-Teams, as well as the Operations Committee, prior to this meeting, and this is the culmination of the last year's worth of work.

I will just walk you through the outline, which is on page 1 of the document, and so we have our Program Goals, which we did modify at the Operations Committee meeting. Section II is the Program Administration & Oversight, and so this is kind of the organizational chart and the infrastructure that we're proposing that is going to be needed to be in place to support the program. Section III are the different Program Components that were specifically developed by or recommendations from the A-Teams, and there's a couple of items, Item a and b in that section, that we need some feedback on, and the rest are kind of just some guiding principles and best practices for how we intend to address communication and volunteer engagement, data standards,

partnership development, and how we'll support projects. We're not going to necessarily get into all the weeds on those things, because they're pretty straightforward.

Then Section IV is what we're calling Project Support & Best Practices, and this is where you'll see the bulk of the work of the A-Teams, and a lot of those are going to be links to the appendices, which are some of the best practice recommendations that came out from those A-Teams on the five different component areas for the program as well as templates that we can use internally, as we pursue projects, to develop our data management plans for projects, communication plans, how we'll do volunteer training, all the different components that are needed for a project. Those are going to be the templates that we would use to develop projects.

We have a Section V on Program Evaluation/Needs Assessment, and that's kind of a strawman of how we intend to, probably four or five years from now, evaluate the program and see what's working and what needs to be modified. Then Section VI are the Appendices, and you will notice that a lot of those are links to some Google Drive documents. The intent is -- Those are still in Word document format, but the intent is to -- We wanted to give you all a chance, if you really were going to dig into it and get into the weeds, to have a look at those documents and give us any feedback on those, and then we will finalize those and get any last-minute additions from the A-Teams and make those final, and then those would eventually be housed on our website next year, once they're final. Any questions about the content, the structure, the outline of the SOPPs?

MR. BELL: For the new folks, you hear talk about A-Teams, and, just so you know, that's not the TV show, and that's not special forces Alpha, but that's Action Teams, and so, what this actually is, it's the collective work of a whole bunch of people in different focused areas and a lot of coordination by Amber to herd cats and get all of this together, and so we can go through this as you like, but if you have specific questions.

MS. SMIT-BRUNELLO: Just a quick question, Amber, and sorry if you already said this, but is it your intention for the council at this meeting to finalize these SOPPs and then they go on the website right after the meeting, or in 2019?

MS. VON HARTEN: Yes, the intent was to adopt these SOPPs through the Citizen Science Committee as a whole, and, yes, with modifications as needed, if there's anything that needs to be modified, and then, in 2019, kind of implement them.

MR. BELL: I have already given Amber a number of typo things and just some suggestions that I had, and so that's why I was asking you all to kind of make sure if you could look at it ahead of time that it would be helpful, instead of trying to get into kind of a detailed wordsmithing and editing by committee sort of thing here, but that's where we are right now. We would like to, if we can, go through this and kind of reach some agreement on it's time to approve and move on, because these are essential to actually getting things up and running. Any comments or questions?

MS. VON HARTEN: Again, like I said, Section I is the Program Goals. It's pretty straightforward. These were some goals that were modified from when we did the Citizen Science Program design workshop back in 2016, and the Operations Committee helped us revise those into more accurate goals of how the program direction is going now, and the mission and vision statement as well.

Section II, again, like I said, is kind of outlining the proposed organizational infrastructure that we feel is needed, and I'm going to walk you through this here, and I know this graphic might look a little overwhelming, but it's really not as complex as it may seem, because some of these are already in place, and so I'm going to flip back over to the PowerPoint, which is Attachment 2, and walk you through this, and then there's also a table on the next slide that kind of outlines the roles, purpose, membership, and all of that for each of these different groups.

At the top is this committee, the council's Citizen Science Committee. You guys are the ones that are providing the overall programmatic direction and implementation for the program. Then below that would be another higher-level committee, but we're calling it a Citizen Science Program Advisory Panel. When we met with the Operations Committee, they felt like it would be a really good idea to have an advisory panel of this nature that could not only advise us on the operational side of things, things like finances and legal issues, just the general process-oriented types of activities, but also have some more technical advisors that were more science oriented to make sure that the program is actually maintaining its scientific integrity.

This would be a group of folks that would help us really make sure that our data standards and the way products are being carried out are up-to-snuff and robust enough that we can use them in management and assessments as well as having some of that other expertise that is helping us figure out different partnership opportunities and financial strategies that we can develop to support the program, any legal issues that might come up down the road as we start really engaging more with volunteers, and then they, of course, would provide their recommendations to this committee, and this committee would then pass those recommendations.

Then, below that, to help inform the Program Advisory Panel, is the Operations Committee, whose primary task is to help us modify the SOPPs, as needed, over time, and so that group is already in place, and that's made up of members of the A-Teams as well as the SSC Chair, Science Center folks, and also someone from SERO.

Then we really want to make sure that we're maintaining our connection with our fishing stakeholders when it comes to developing projects, because that's what fishermen are really interested in, is helping participate in and develop projects, and so what we're proposing is a Projects Advisory Committee, and this committee would help us work on identifying and prioritizing some of the research needs for the program as well as being kind of some of our outreach ambassadors and also helping us with some of the volunteer engagement, with getting people involved in projects.

Then, below the dotted line here, is our Citizen Science AP Pool, which is already in place, and these are the folks that made up the Action Teams, and so the Actions Teams have now -- Now that our work is kind of complete, they have been reabsorbed back into the AP Pool, and then another thing we're proposing is that, as we move forward with some of these program components, we might need some ad hoc technical committees that we could draw from the AP Pool to help us do some of the activities for projects or the program as a whole. Any questions about that?

MR. POLAND: Just a quick question. These Action Teams, are those standing teams, standing committees, or are they ad hoc, or are these just the ones we've been working with? I just want some clarity on that.

MS. VON HARTEN: These action teams were really developed just for the beginning of getting the program off the ground. Now, we may resurrect them as we move forward. For instance, as we start getting more volunteers, obviously we're going to need some help kind of figuring out how to manage our volunteers and developing a volunteer database. We might have to actually pull in our Data Management A-Team again to help us kind of develop some of those strategies for really coordinating those kinds of activities, and so they're still there, kind of in the background, and we have that pool of folks to pull from, but, right now, I think we're just thinking this AP Pool will kind of be one big group and we can develop these different Action Teams, or Technical Committees, as we move forward.

MR. DILERNIA: In the Mid-Atlantic, our primary source of scientific information is both our Northeast Regional Science Center and our SSC. I was wondering, and where does the Southeast Regional Science Center or your SSC interface with this particular initiative?

MS. VON HARTEN: Throughout the entire body of this group. We have members from the SSC on our Action Teams, and also on our Operations Committee, as well as we're hoping on this larger Program Advisory Panel, and we would like to have representatives from those folks as well, because, obviously, it's going to be really important that we are communicating and coordinating with them to make sure that what we're producing through our projects is actually data that can be used.

MR. DILERNIA: So they would be like in the first blue square below, where it says "Technical Advisors (Science)", and that would be the SSC and the Southeast Region?

MS. VON HARTEN: Yes, as well as the Operations Committee here below, and Erik Williams was our rep from the Science Center, and then Rick DeVictor was on there from the Regional Office, and then we actually have some SERO folks on some of our Action Teams as well.

MR. DILERNIA: Thank you.

MS. VON HARTEN: Then this table might actually help explain some of these larger bodies a little bit better, in terms of their purpose and roles and responsibilities, and so, as I said earlier, this first column here is the Program Advisory Panel, and, like I said, they're really recommending kind of the higher-level program policies, in terms of science and operations, and they also will be the ones that receive any modifications or recommendations about the SOPPs that will then get passed up to this committee.

As far as membership, you can see here, just by answering some of your questions, Tony, we do hope to have agency-level reps from NOAA, Sea Grant, the Atlantic States Marine Fisheries Commission, as well as ACCSP, and it's been suggested that perhaps we have someone from NOAA Headquarters.

There actually is a Citizen Science Coordinator at NOAA S&T that heads up all of NOAA's Citizen Science efforts, and that's Laura Oremland, and someone like her or someone like the Chief Scientist, possibly, someone that is giving us a larger, national-scale perspective on how citizen science might fit into management, as well as fishing stakeholders, and, obviously, the Chair of the Citizen Science Committee might be a member of this larger group as well. Then,

also, we've been working with the folks at Cornell, Rick Bonney and Jennifer Shirk, who are citizen science experts, and they have been pretty invaluable, and so we would like to have some kind of citizen science expertise on this larger group.

As far as meetings, we would like for them to meet annually, and possibly in-person. However, this is a group that we don't anticipate really needing to be implemented probably for another couple of years, and that's because we need more time to get projects under our belt and see how this is all working and see if these proposed policies we're putting in the SOPPs actually work, and so, as far as the frequency of when this group would meet and when the immediate need is for them to meet, it's probably not for some time right now.

Then, again, the Operations Committee, the second column over, I think I've described that, who is a member of that, and what their role is, and we met in-person in August, because it was the first meeting of this Operations Committee, but I anticipate that those are meetings that could happen via webinar and not necessarily in person, and then, the Projects Advisory Committee, the makeup that we're proposing for this advisory committee is actually trying to connect it to our species APs, and so having the chair of the species APs, or a designee from the species APs, as well as the Habitat and Ecosystem AP and the I&E AP, to be members of this Projects Advisory Committee team.

Again, we would hope that we would be able to meet with them probably a couple of times a year, maybe in between our already scheduled AP meetings, but it would just be a webinar. We don't think that there would be a need to meet in-person with that group, and, again, they would help us really be the connection to what they're seeing on the ground in their fisheries and what kind of different research needs there are for those fisheries and what could be addressed using citizen science and helping us figure out what kind of projects need to be done, and, also, engaging with volunteers for projects that are coming up, as well as helping really talk about the program and what we're doing. Does that help explain a little bit better, and it doesn't seem too overwhelming, maybe, now?

I anticipate that -- Let me go back to this graphic. This lower level here, like I said, we already have the AP Pool, and so, as the program grows in the next couple of years, we may have the need to pull together some more ad hoc technical committees. For instance, one of the things that I was going to talk about next is the project endorsement program that we're proposing. If we move forward with that, we would possibly need teams of reviewers to review the projects that are coming in to get the endorsement from our program, and so we might want to pull together an ad hoc technical committee for that.

Then the next group that I see maybe being implemented sooner rather than later, maybe in 2019 sometime, would be the Projects Advisory Committee, because we'll be -- You all will be looking at your research and monitoring plan, which is one of the sources of information that we use to develop the citizen science research priorities, and so we would want to get their feedback on that as well.

The Operations Committee, I don't anticipate, unless there is something drastically that needs to be added or changed to the SOPPs, I don't anticipate them meeting very often either. Then, like I explained earlier, the Program Advisory Panel up here, they probably wouldn't need to be implemented for a few years. Now I'm going to switch back to Attachment 1.

Before we move on in the document, if you go to your overview on page 3, I did have some questions that we needed some feedback on, in terms of, like overall, does this organizational approach seem to make sense? Does it seem like it's too much? Do we need more? Then I have some specific questions about each of those different groups, mainly the appointment duration and any other functions that you feel that they could fill for the program.

MR. BELL: Again, some of you may be coming into this a little new, or a little cold, but the whole concept of this is to basically deal with -- Address some of our needs for data through kind of leveraging a public interest or a public capability to work with us in a cooperative sense to kind of get -- To help fill in gaps, but, again, do it to a standard, and that's Tony's point about integration with the SSC and the Science Center and all, is to make sure that whatever we do is done to a standard that it's acceptable that the data can be actually used, and so that's what the whole program is, for some of you that are brand new to this.

MR. POLAND: Since I am brand new to this, can you just kind of briefly just walk me through the process? If I'm a fisherman, and I have an idea, and I want to see what kind of couch cushions that turtles like best or something like that on the boat, what is the process? I mean, is there like just a continual advertisement, or is there going to be like an RFP? Do I go to my council member and say that I think foam cushions are better than down cushions and do the work?

MS. VON HARTEN: Well, if you all think that that's a research need for citizen science, we can certainly investigate that, but, really, what's driving the kind of projects that we're going to pursue is our research needs document, which we developed earlier this year, and you guys adopted it before you were here, and, again, that research needs document is tied directly to the research and monitoring plan as well as the feedback that we get from our APs as well as the SSC, and so we have that research priorities document.

One of the things we're proposing is a process for developing those research priorities, and one of the ways we're thinking we could get larger public input about ideas that aren't on the research needs document is to develop a portal that is like a form that fishermen could fill out that kind of walks them through some guided questions that are kind of linked back to the research priorities, but doesn't limit them to only proposing ideas that are on the research priorities list.

Then we would compile those and use those to develop the next research needs list for the next year, with you all's approval, but, again, we don't have any funding to support projects, and so partnership development, particularly in the last six months, has been critical to developing projects, and, as you all know, I'm going to talk about, at the end, the scamp project is about to launch, and we did get funding for another project, and so what we anticipate is we want to be connectors, so, if a fisherman does come to us and they have an idea, we will kind of help vet that idea, to make sure that it has the different pieces and parts that would make a good citizen science project, and then also help connect them to researchers or other folks, agency folks, that could help them actually develop a project that could get funded, and so that's kind of how we're -- There is kind of two roles. We hope to pursue projects specifically that are on our research needs list internally, but then also help kind of facilitate projects being developed externally as well.

MR. BELL: So couch cushions might be an appropriate thing, or it might not be, and, then again, another factor would be you just happen to be the president of E-Z Boy or something, and you're willing to support such research, and that's a financial component. Doug, did you have a question?

MR. HAYMANS: Well, it was an answer, I guess, because, several minutes ago, Amber listed the questions and asked for input, and so I'm just very conscious about how -- I mean, I realize the importance of citizen science, and I've heard it from lots of folks around me that folks want to have input, but, man, the overall citizen science is growing, and I just think we need to really, especially since we don't have funding for even the projects -- The bounds, the scope, of the involvement just seems to be getting really large.

I guess I would -- I realize it's in its infancy, and maybe it needs to expand to get everything in, but then I think we need to contract at some point to an advisory panel, and that advisory panel is made up of maybe some of these experts and then some citizens and whatnot, rather than having so many different groups providing the input, but I realize that, in the infancy, maybe it needs to be bigger, but, again, we don't have the funds, at the moment, to support projects, which is probably the most important part.

MR. BELL: I know the structure itself looks overwhelming, but, as Amber was saying, it's not this giant thing that exists in the entirety at all levels at all times. There is a lot of overlap, and it's not as big as it looks, perhaps, but, yes, you have to have some sort of structure to at least allow you to move forward. Then, as you get into it, we may need to tweak or adjust or something, and certainly funding is the -- Just like the work that we do based on the program science that we're dealing with, it all gets back to funding, in terms of getting it done.

I wasn't being sort of flippant about that, but a project that -- An idea has to kind of, at some point, get paired up with the appropriate support to move forward, but I guess what I'm saying is it's not as huge as it might look, but it's a place to start, and this is also the -- This is kind of the collective recommendation work of a whole bunch of people that kind of helped come up with the structure, and so this was their take on how best to kind of get us at least going.

MS. VON HARTEN: This proposed structure was actually in the blueprint from a couple of years ago, and it has been modified a little bit, and I think more focused, especially with -- I think maybe this here, Doug, the Citizen Science Projects Advisory Committee, is going to be maybe hopefully what you're thinking about, in terms of advising the program on projects and research and things that we need in our fisheries, in terms of project and research ideas. You're right, and that's why I'm asking if this seems like it's too overarching right now, or does it seem adequate, given that we intend to kind of phase these different groups into the process as the program grows and as it's needed.

MR. HEMILRIGHT: I was just curious. Is there a template from the council on research needs for specific species, and what I'm getting at is this looks like a -- Maybe it's just me looking at kind of massive undertaking here a little bit without a template of looking at what research is needed for let's say blueline tilefish. It looks like -- I am just wondering, from the council, is there any template for what the research need is for every species we manage, and not that the citizen science has to be tied to just a specific species, but I was just curious if there is a research list, and not a prioritization, of all the species and what's needed.

I know, when the stock assessments come, I have always seen research needs or wants, and I never see nothing get done, never, and, if somebody has, please fill me or show me different, but I'm just wondering if there is a list from the council on each species and what the list of needs are at some certain level of the council's thoughts and the SSC's thoughts or the Science Center's thoughts. Thank you.

MS. VON HARTEN: Yes, there is, Dewey, and that's that research and monitoring plan that I was talking about, and that is made up of all the SEDAR research recommendations that come out from each SEDAR, and so, as long as there's been a SEDAR on a species, there are some research recommendations, but it's not every species, and so, when we first developed the citizen science research needs document, we took the research and monitoring plan and identified those topical areas as well as species that we felt citizen science projects could be developed under, and that gets reviewed by all of our APs, as well as the SSC, with their recommendation as well.

DR. LANEY: Dewey, there is a similar document for ASMFC, too. They go through and they look at their research needs, and they do it by species, every two years, and they organize those into high, medium, and low priority, or maybe it's short-term and long-term, and I can't remember, because it's been a while since I looked at it, but how that is useful to at least the academic community is they can look at those documents, and then they go pursue funding for projects that may be of interest to them, and I agree with you that you can't always go back two years later and look at that document and check off all the things that you had hoped would get done, because it takes a while, on the academic end of things especially, because a lot of times you're funding a grad student, and you've got to have a minimum of two or three years of field work before you even get the work done, and then the publication process after that, and so it takes a while for the cycle to complete itself.

MR. HEMILRIGHT: I would like to go look back over five or ten years and see what is done, completed, because it seems like, to me, there is a lot of time spent on developing a list that never gets done, whether it's two years or five years, and the prioritization of what's gotten done, the high, low, medium, because I guess it's results is what I'm looking for. I know there is a thing that is -- You put it out there every year, and I see it in every stock assessment or something, and I see where we need this and we need this, and it never gets done, but just like a five or ten-year, and so I guess it would be like deliverables that was delivered. Thank you.

MR. BELL: What you're talking about really is a document that collects the research needs and priorities of the council and, like you said, coming from SEDAR-based or whatever, and so that's fine. You've got this list, and so what this is about, this program is about, is perhaps another mechanism to maybe get at a couple of those things. It's just to augment our normal research capabilities and data collection capabilities, and so the purpose of this is to help us, perhaps, be able to check some things off a little sooner than normal, perhaps.

DR. LANEY: Dewey, we do, when we are doing the FMP updates at ASMFC, when we do the research needs, we do go ahead and add completed projects that are relevant to the research needs that were identified in the last iteration, and so you can find some of that information, again, for ASMFC species, in those published reports.

MR. CONKLIN: I know this might not be the spot to talk about this, but I know that scamp was our first low-hanging fruit or whatever, and we've developed that, but I was just thinking that, as

we go through these research needs on a species-by-species basis, coming out of the SEDARs and there's gaps in what people need for stock assessments, if there is a common trend and we develop another program, that we would do it for multiple species, to capture the same data needs. Like, for instance, we have scamp right now, but, if that was a common theme for several other species, that we would incorporate those as well.

MS. VON HARTEN: That's the intent with the scamp project. We knew that the assessment was coming up, and so we chose that one first, but our app developers have already built in, on the backend, all of our species, and so hopefully the hope is to expand it to collect data on other species as well.

MR. BELL: Some of this is going to be taking some baby steps and things that we can, again, afford, but, as we get down the line a little bit, we can perhaps get more sophisticated and the projects can become a little more robust and cover multiple species and things, but you've got to kind of start slow and then crawl, walk, and then run.

MR. CONKLIN: I was just making sure that Chester was still rounding up all of our money for us. Remember in June, two years ago, you rattled off a nice, long list of contributors, and so I hope you're holding their feet to the fire.

MS. VON HARTEN: I would like to move on from this, but I guess my main things are if you all could give us some feedback on particularly the committees that we anticipate maybe implementing sooner rather than later, like the Projects Advisory Committee. One of the things we didn't have in there was how long should these appointments be standing, given that, if the makeup of that committee is the chairs of the APs, or members of the AP, and their terms kind of rotate, and does an annual appointment make sense, or a two-year appointment? That's the kind of things that we need in the SOPPs, is kind of our process stuff, so that we know how to operate.

MS. MCCAWLEY: I don't know if I know enough to say one or two. To me, that's kind of up to Amber and what she's thinking, based on how the people are working out, and, once you get someone up to speed, if they would automatically rotate off, so that maybe two years is better, but, to me, that's kind of up to you guys.

MR. BELL: Yes, and, again, if someone is on there positionally, because they are a chair of an AP or something, then you have to pay attention to what their period is for their particular AP, and so that may just take some -- Get it established and get into it a little bit to see what the proper time period might be, and maybe we just need to be flexible, because we have to adjust.

MR. CONKLIN: I think it should go as long as possible, even if they do roll off of an AP, and that they would still be appointed to this, because, like Amber said, they're not going to be meeting all of the time. In some of the committees they would, here and there, but it's going to take somebody a long time to get familiar with a brand-new process and structure, and, if you get a good person in there and get them trained up, I don't see terming them out as a great idea. I mean, this is not extremely political.

MR. BELL: No, and the only example that I was thinking of terming out is if they were on there because they were -- It was the AP of a certain committee or something and then they were no longer, but, yes, I totally agree with you that, if you've got some ability to stay on there and get a

little more long-term perspective and get things through a process, that would be better. We'll just have to kind of balance that, I think, as we move along.

DR. LANEY: For the kinds of citizen science programs I'm most familiar with, and those are the terrestrial ones, like the breeding bird survey and frog calls and butterfly counts and all those sorts of things, in those cases, they tend to hang on, at least to the volunteers, and I know we're talking about the Program Advisory Panel here, but I would kind of tilt towards Chris. If you've got a good person, keep them on there as long as you can, as long as they're willing to contribute the time to it, and I know we have breeding bird survey folks that have been doing routes for probably twenty or thirty years, in some cases, and so, if you get a good person, and they're doing good work, keep them on there.

MS. VON HARTEN: I think what I'm hearing is you're going to leave it up to my discretion and be flexible as the program continues to grow. Okay.

MR. POLAND: I agree with all of that. If we have anyone that is interested and willing to participate, let's keep them on. I would just say maybe have some terms of -- You've got three to five years here, and I think that's appropriate, just so they have to reaffirm, every so often, that they still want to participate, because sometimes, just depending on the workload, you might go a year or more without any contact, and so just to keep the pool up-to-date.

MR. BELL: Okay. Thanks.

MR. HAYMANS: I personally would run these similar to what we do advisory panels, with term limits of nine years. I mean, three terms, whatever the term is, but just to make room for other people. We've had the same discussion on the APs, specifically over Snapper Grouper, and I would try to keep them all the same.

MR. BELL: Just for consistency within how we operate.

MS. MCCAWLEY: Yes, but that's kind of opposite to what Chris said. If you're getting a good person, maybe -- Let me just throw out that it seems like some of the people that are chosen to be on some of these bodies are retired, or maybe they're former council members, and so I just don't want to limit it. It seems like this is kind of a different animal, and I don't know, and that's just my thoughts. I think that's what Chris was trying to say.

MR. POLAND: Yes, and that's kind of how I was, too. Have terms, but really no term limits, and that's a good example. If it's mostly retired folks, we might just want to do some checks every once in a while to make sure that, hey, you're still alive.

MR. BELL: I guess the difference -- Like you said, it is a slightly different critter from the other types of APs. The other APs advise us on a regular basis on things that we're moving forward related to management resulting in regulation, and this is a different group that's just trying to keep a program kind of up and running, but it is useful to have sort of fresh outlooks, at times.

MS. VON HARTEN: John just reminded me that this is how we do the SSC, terms but no limits, and so it could be structured like that. Also, the reason we kind of thought this idea would be great is we want to engage some of the APs that don't meet very often. We might be engaging them

more than they actually participate in an AP meeting, which would be good, I think, because there are some APs that we haven't engaged with on the Citizen Science Program yet, like the Shrimp AP and some of those other ones that meet less frequently, and so this will be a way that we're making sure that we're covering all the bases for all the fisheries that we manage.

MR. HAYMANS: The reason we set the SSC up the way we did was because it was a very specific talent base, and it wasn't like there were a lot of people trying to get onto it, and I understand the SSC being different than everything else, but there you go.

MR. CONKLIN: Without a term limit, which I support not having term limits, but I do think there should be a mechanism for removal. You need an axe man.

MR. BELL: All right. That's a nice way to look at it.

MS. VON HARTEN: Okay, and so the next section that I really needed some feedback on is in Section III, and it's that first one, the 3a, the Citizen Science Program Research Prioritization Process, and this is kind of a three-step process that we're proposing that we've kind of just talked about a little bit, the first step being providing input on the biennial research and monitoring plan.

Step 2 would then be using that document, as well as feedback from all of our advisory committees that we just talked about, develop a Citizen Science Program research priorities document, which we've done, but that obviously would need to be updated, and so we're proposing that that kind of be done in concert when the research and monitoring plan is reviewed every couple of years, and then the third idea was to develop this portal that I talked about earlier to make sure that we're still allowing for a free flow of ideas to come in and be considered and making sure that they're ideas that make sense.

Again, some of our A-Teams kind of cautioned us to be careful with that, because that could, if people really got interested in it and they started submitting ideas and then getting frustrated that the projects weren't being pursued or whatever, making sure that we were really clear with the intent of how those ideas coming into the portal would be compiled and then considered during the next iteration of the research priorities. I think my questions were do you feel like that's enough of an open process for stakeholders to engage in getting project ideas at the table, and it could just be a simple yes, and I don't know.

MS. MCCAWLEY: I think so. I mean, somebody earlier was talking about a way on the website that they could -- Like a more open-ended thing, and that is included as part of this, and is that right?

MS. VON HARTEN: Yes, and we could set up like a Wufoo form and have it set up where they can answer a series of questions. Like one of the things that we talked about was we would like to know like have they talked to a researcher about their idea yet, does it fall in line with any of our research priorities, just so we're kind of guiding them along with their idea a little bit more.

MS. MCCAWLEY: I like that.

MR. BELL: Okay. Anything else on that?

MR. POLAND: I guess I'm interested on the funding for this, the developing partnerships. Has there been any discussion -- I just pulled up what was in the appendix for developing partnerships, but any discussion about -- You've got this platform for citizens to bring ideas, and is there another way to do like you get some ideas and you just put like a solicitation out there just asking if anybody is interested in partnering and throwing in some funds? Are they going to have to go out and panhandle? I mean, just something just to say, hey, these are some projects that we endorse and we think are good, and let's farm this out and say is anybody out there in the fishing community, or Chester, willing to fund any of this.

MS. VON HARTEN: I can think of two ways we can do that has been brought up from the A-Teams. The first is we always had this vision of being a matchmaking service, and so, as the ideas come in from fishermen through this portal, we could collect their information, and then we could help connect them with the researchers that might help them build a project, and then we could help promote the project idea, and hopefully, if there was a fishing club that wanted to pursue getting funding or support it or whatever, that we could help facilitate that happening, and it wouldn't necessarily be a project that we were carrying out and we were the project investigator on, but it would be more external.

Then the other thing that the Finance & Infrastructure A-Team has put together is kind of a living spreadsheet of funding opportunities, and that's something that we anticipate sharing very widely and having it on our website as it gets updated, almost like a rolling calendar of all the different RFPs that come out and foundations that might support some kind of citizen science research work and making sure that that's shared with the people that can build a project, and so that will be hosted on our website as well.

MR. BELL: Also, keep in mind sort of initial success kind of stimulates interest, and so, as we get into this, if we have projects that are successful and get attention, more and more interest can be drawn to this and expand funding opportunities.

MS. VON HARTEN: It's already happening.

MR. BELL: Yes, already, and so I think this is first steps.

MS. SMIT-BRUNELLO: It seems like this is a good point to just mention this to you, too. I love the matchmaking idea, but then there's also another kind of idea, and that is could the council get money in some fashion to fund some of this? Right now, I'm looking into those kinds of ideas with Department of Commerce General Counsel, because they deal with those kinds of fiscal issues, and could ASMFC be your fiscal partner, and there is a potential MOU draft out there that I have shot to DOC GC to just have them look into this, because this is really different for a fishery council to deal with, and so we want to get it right, and so I think there is a couple of different avenues, in terms of the funding and those sorts of things. I will have more information on that for you hopefully by the next council meeting.

MR. POLAND: I guess, kind of along those lines too, I like the idea of a matchmaking service, fishermenonly.com or something, but, from a legal perspective, are there going to be any concerns if the public might perceive that the council is out there soliciting funds from private entities for this?

MS. SMIT-BRUNELLO: I am certain there would be. That's why I think it's really important to get that part of it right and really hammer down those sorts of things. In terms of appearances, what the public would think, you've got a great staff here who can make it clear on the website and get out with social media to take care of those kinds of concerns, but the legal part of it is something, like I said, which is very different than usual, and so we want to make sure that we have all of that -- That the I's are dotted and the T's are crossed and there's a stamp on it of approval or something like that, and so we want to make sure that we get that part right.

DR. LANEY: I am not saying this is a model, but this is just a concept, and my North Carolina colleagues may be able to help me out with this, but there used to be a program in North Carolina that was associated with tobacco program called Nickels for Know How, and I can't remember exactly how it worked. Steve, do you remember that? It seems like, when tobacco growers would take their product to the warehouse, they all agreed to pay like a nickel per -- I don't remember if it was per pound or per hundred pounds or whatever, but it generated a huge amount of dollars for research, and so I will let your minds take that concept and try and apply it to the council process.

One thing that comes readily to mind is look at landings somehow and seek some sort of voluntary contribution, based on landings from the stakeholders, and I don't know whether they would buy into it or not. The tobacco growers bought into it big time, and it generated millions and millions of dollars for research over the life of that program. Of course, times change, and tobacco is no longer as popular as it once was, although, on our family farm, our grower is raising organic tobacco, and it sounds like an oxymoron, but he's gotten into a niche market there, and he is very successful with that, but the allotment program went away, and I don't know whether Nickels for Know How -- They may have switched it to some other commodity, and I don't know, but it might be worth just checking into it and seeing how that worked.

MS. VON HARTEN: The issue is, okay, great, and the money can get collected, but where does it go? That is what Monica is helping us figure out and developing some fiscal partnerships where we'll have the ability to maybe access some of those funds, because we have also talked about crowdfunding and a lot of other -- Like, In North Carolina, I know the artificial reefs -- Those associations helped do some crowdfunding to raise money for reef materials, and we talked a good bit about that, and so, yes, there is different models out there, and that's what the Finance Team really worked on, was looking at all the different models that we could explore, including -- We also looked at developing our own separate foundation, but that's a little bit more complex, and maybe further down the road, but, yes, definitely thinking about all options.

MR. BELL: We can be imaginative and all, but keep in mind that whatever we would do will meet the legal scrutiny of NOAA GC and others.

MS. VON HARTEN: Okay, and then clearly there is more in this section as well about volunteers and data management and those sorts of things, but the other thing that I really needed some feedback on was to the project endorsement program, and this kind of stemmed from a program that's an ASMFC habitat initiative, where, in the absence of funding for projects, they wanted to be able to offer something to facilitate development of projects that met their goals and mission and are offering endorsement of projects that submit an application to their program to receive endorsement, and they get use of their logo and a letter of support, if they need it for a grant and things like that, but also to help facilitate giving something back to researchers and fishermen that want to get a project together to help them get it funded.

We have kind of developed a similar type of program that we eventually would like to implement, and I don't know if it's necessarily something that we would implement in the short-term, because what I would like to see happen, personally, is for us to take some of the projects we have underway and fit it into this template, to see if it makes sense and works, but, essentially, it's just an application process. The project PI would submit a preapplication to kind of vet it first and then, if they made it through that first pass, then they would submit a full application, and it's just a very simple -- It would be an online form that they would fill out, using some of the templates that we developed through the Action Team work, to tell us about their project, and we would give it a stamp of approval or not.

Then, obviously, those projects would need to be vetted further at the full application stage, and so we would need some kind of review team to be doing that, so there was some separation between staff and the technical experts that might need to review that, and so that's where I gave the example earlier that that might need to be an ad hoc technical committee that was convened, and so I guess my question about that was does this make sense, and how quickly should that type of a program be initiated?

DR. LANEY: Amber, it's actually the Atlantic Coastal Fish Habitat Partnership that has the -- It's housed at ASMFC, and I think it works really well, and what we do there is we have just a sub-committee of the steering committee that does the reviews of the projects that are coming in for endorsement, and so that cuts down on the amount of infrastructure that you have to have, if you use a sub-committee of -- In this case, I guess it would be your AP. They could do it, and I think it works real well, and it was something that we didn't start it right off the bat. It was a couple of years before we thought of the idea, but I think you could just go ahead and do that from the beginning, as far as I'm concerned.

MR. BELL: Any other questions or comments on that part?

MR. POLAND: Yes, I like the idea of a project endorsement program. I would just really like to see, in the development of that program, some type of periodic review, report and review, of whatever the program is, because I would hate to see folks get their program endorsed and then we never hear from them again.

MS. VON HARTEN: Yes, and that is actually part of how we developed the idea for that program, is to make sure that it wasn't just a one-and-done kind of communication, but they would have to give us some progress reports, and, if the scope of their project changed, they would have to let us know and reevaluate, and then, of course, share any results that they could, especially that were applicable to what we do here at the council.

MR. BELL: Okay.

MS. VON HARTEN: Okay, and then, as I said, the rest of the sections are related to the templates and best practices that all the A-Teams developed, and we will not go through all of the appendices, because there's a lot of them, but, if you really want to get in the weeds and dig into it and you have any comments or feedback about those, feel free to get in touch. My goal is kind of to clean these up, with any editorial comments and the suggestions that you guys have made, and get these launched, once you adopt them, in 2019.

MR. BELL: All right. Anything else?

MR. CONKLIN: I just want to say fantastic job getting this thing off the ground, and what a ton of work it has been, from its infancy, and thank you.

MR. BELL: If there are no other questions or anything you want to say right now, where we are is what we would need is a motion to basically approve the SOPPs as they exist, and, again, if you find something that you have a question about or notice something that needs tweaking or something, you can get back with Amber on that, but this is basically a first step to allow us to get the program up and running and operational.

I think it's very interesting that here we are in Kitty Hawk, North Carolina, where flight began, and, you know, I'm sure, at some point, someone turned to Orville or Wilbur and said that that thing will never get off the ground, but they did, and so here we are today, and we're going to try to hopefully get this thing off the ground, and it's very appropriate, and so, if someone on the committee would like to make this motion, that would be great.

MR. CONKLIN: Since the SOPPs guy, it would only be fitting for me to make the motion to adopt the Citizen Science Program's SOPPs, with modifications as needed.

MR. BELL: Wilson seconds that. **Is there any objection to this motion? Seeing none, then the motion carries.** Thank you.

MS. VON HARTEN: Now we get to the fun stuff, the project stuff. There was going to be an attachment, Attachment 3, I believe, and that is what Monica is working on, and so this is a draft MOU that we have been working on with ASMFC. They have expressed interest in partnering with us, and we're exploring the legality and all the different issues that surround a fiscal partnership of this nature to possibly be one of our fiscal partners that can help us receive funds for projects, or to carry out projects, and also be involved in the higher-level committees that we just talked about as well and have a seat at that table. Monica has been working on this, and she is working with the Department of Commerce General Counsel, and hopefully we'll have that ironed out in the coming weeks. Anything else that you want to add, Monica?

MS. SMIT-BRUNELLO: I like your hope, and I will hope that, too.

MR. BELL: That's a positive. All right.

MS. VON HARTEN: Okay, and I just need a second to transfer presenter mode to my laptop, so I can show you the scamp app, and I'm going to talk about the scamp app, and so just give me a second.

MR. BELL: We'll get a couple of little updates here on projects that are ongoing.

MR. WAUGH: So we don't have any dead time on the radio, something that just recently came to my attention is that, early in the Magnuson process, the West Pacific Council was successful in getting some wording into the Magnuson Act whereby they can receive monies from other sources, and so that certainly hit my interest, and that's something we're going to pursue and see how that

was done and what's involved in that, because that may -- If it proves doable down the road, that may be a huge solution for citizen science funding, and so that is something we will look at and report back to you.

MR. BELL: All right. Thank you. Okay, Amber.

MS. VON HARTEN: Okay, and so our app is going to be called Release, and it's just short and simple. We have tried to vet a bunch of different names that were clever and cute, but, based on some feedback, we decided just to call it Release. If you noticed, the icon has a fish on it, and so hopefully that will get people to think about that this is a fisheries-oriented app, and so our developer is getting ready to release what will hopefully be the final version of our evaluation app, and so we have two versions of the app, the actual production app, which will be the one that will be accessible to people in the app store to actually collect data, that will actually go to ACCSP, and this is just our evaluation app, and so it's kind of the test app, which should be available by the end of the week.

You will see here, when you open up the app, that you will have to create an account. We have been working with ACCSP on this, and all of the accounts are going to be created through their SAFIS system. Also, as the for-hire electronic reporting comes online, any of those folks that have existing ACCSP user accounts will be able to use their same user account and login information to use our app as well, and so it should be pretty seamless. I am the one that will be managing creation of accounts, and they have added us to their backend system as an admin, and so we'll see how that goes.

You create your user name, and then you enter your password, and you should get logged in to the frontend of the app, and so remember that the intent of the app was to be clean, streamlined, and easy to use, not a lot of bells and whistles, and easy to read when you're fishing offshore, and so that's the color scheme that we chose in here, with the bright-green buttons that are easy to see and a dark-blue background.

You can -- I will just show you here that we do have the ability to -- You can press the "contact us" page, and it will prompt you of how you want to contact us, and there is a little about page that kind of describes what this project is about, and, also, for any new account that is created, they have to contact me, and so there is my information there, and then, to start an entry, we have created a couple of different ways that you can create an entry. You can start it by taking a picture, and so you can click the little camera button, and I can take a picture. There is Chris. Chris is our scamp grouper for the day.

Then it will take you to the data-entry page, and that picture will automatically be associated with that entry. You can also start it by going to your photo gallery on your phone, which is the second button over, which I am not going to push, because I don't know what is going to come up in my photo gallery. I can't remember the last picture I took, but it's probably birds, which is very common on my photo gallery, or you can press the third button over, which is the keyboard, and it takes you straight to the data-entry page, and so we'll walk through this.

You can select your trip type, and so again remember that we're collecting data in all sectors, and you enter your date, and so the calendar comes up, and you can pick your date, and then your

release time, the time that you release the actual fish, and so it comes up and there's a nice little slider screen that you can slide around and pick your time.

Then we ask you to enter the length, and we want fork length and not total length, which is confusing, and so we have a little -- Because of the regulation of how you need to record what is a legal fish, and so we have this little pop-up that's reminding people that we want your fork length, and this is how you have to measure it, and you can also select this little button that says do not show when editing lengths, so it doesn't keep popping up every time you try to enter a length.

For your location, you can either enter it manually by clicking that button there on the right and enter it straight from your GPS unit, or it will take you to a stored Google map, and you can scroll in and out, and it's in the grids, and you can select your location. Maybe I will go a little further south for scamp, and then hit "okay", and it will automatically record your location. Then you can do the depth caught. Let's say eighty-five feet. Those are all the required data elements that we are asking people to report.

Below that is optional information, and, again, we were just trying to figure out what people are willing to report and collect, and so we thought it would be great to know where was the hook, where did you catch the fish, and we caught it in the jaw. Then what kind of hook type, and we used a non-offset circle, and then we have a few condition on release, the fish condition questions. Again, it's just trying to understand what people are willing to collect, and these were kind of vetted by our Project Design and Planning Team of what would actually be useful and also quick and easy for people to enter if they wanted to. We do have was a descending device used, whether or not they vented a fish, if the line was cut and the hook was not removed, and also dead.

MR. BELL: Did we add the tagging --

MS. VON HARTEN: We didn't add that, no. Again, we're trying to keep it streamlined, but that could be something that we add in the future.

MR. BELL: My thinking was, if some people participate in the tagging program or something and the fish is tagged, then you know you have a descending device and tagged, and that might be useful at some point.

MS. VON HARTEN: Then, at this point, say you were like I don't want to -- I am not going to enter this fish, and you can use the little trashcan button on the left to delete it, and you can take a photo now, or you can go -- Say you want to just enter your data and come back later and add a picture. You can save it, which is the far-right button, and then go back and add a picture later, or you can add a picture now, and so I'm going to save it, and then it shows up in your release details.

You will notice that some of these entries have a checkmark by them and some don't, and so, if you're offshore and you don't have cell service, it's going to automatically save it to the backend of the app. You don't have to worry about it, and so, when you hit the save button, it's automatically saved, but you still are going to have to upload it once you're onshore and have cell service, and so that's why there is the upload entries button. You would hit that, because there is two entries there that don't have checkmarks, and it says it's uploading, and then it says "success". Then you hit the little green button, and you will go back and see that the checkmarks are there, and that's how you know that you have successfully uploaded your trip or your release.

Then remember we talked about we also want to know if people went out and they didn't have any releases, and so there is the "X" button up there, which is the no-releases report, and so we want to get people in the habit of using this every time they go, even if they go and don't encounter scamp, and so this is what you would use if you came back from fishing and you didn't catch anything, you didn't catch any scamp. You would record your trip type and date, and then you could add any comments you wanted, that you didn't encounter scamp or that -- We're just trying to see what people are willing to tell us. Then you would upload that as well. Then users will be able to access their data using the ACCSP online system, and I think that's it.

We are hoping, like I said, to have the evaluation app final this week, and we're going to get it out to some test users between now and the end of the year and then hopefully launch probably mid-January and get it in the app store and the production phase, and so stay tuned for lots of push on that.

MR. BELL: All right. Any questions about this particular project or concept?

DR. PORCH: I'm just curious. When you explain the usage of this to them, and you say required versus not required, what does "required" mean? Does it mean if they don't fill it out that you -- If it doesn't get used, it's not included in the database?

MS. VON HARTEN: I think they can't save a submission if they don't enter at least those three basic -- It won't submit, but I can use another word than "required". They are voluntary data.

MR. CONKLIN: Refresh my memory. We have a select pool of people that will be using this, or anybody can download it and start reporting?

MS. VON HARTEN: Anybody can use it, because we're trying to hit all sectors. Obviously, I'm going to hit up our AP members and the other fishermen that we have engaged, and, if you have other suggestions for fishermen that you know that do encounter scamp and do catch scamp, feel free to shoot me an email, and, if they're willing to participate, I can contact them.

MR. BELL: Realizing that electronic reporting and electronic monitoring and the use of new technologies are something that is kind of on the front burner, this is just a concept for us that we can actually work through and flesh out here some in our region.

MR. POLAND: I was just curious what kind of public outreach you have planned once this app rolls out, just to get the word out.

MS. VON HARTEN: I was very fortunate to have our Communications & Outreach A-Team develop an entire communication plan for me, including by target audience and frequency and target strategy and all those things, and so you're going to see lots of social media, and I'll be working with Cameron on that, and, also, emails and hopefully getting out to talk to some fishermen directly and doing a little bit of shopping it around at fishing clubs and docks and things like that.

MR. BELL: Any other questions or comments?

MR. CONKLIN: What's the duration of this project? Is it open-ended?

MS. VON HARTEN: It's pretty open, I mean as long as we can get data into the scamp assessment.

MR. CARMICHAEL: We hope to just keep going and collecting data. You know, certainly up through the operational assessment, it will be able to be included in that, and so, ideally, we'll have some data when we're starting on the research track phase and be able to start evaluating it and be able to bring in several years' worth when we get into the operational, or a couple of years' worth, at least, and then we just see where it goes from there.

We hope to see it expanded to other species, but this is just sort of the first step, and hopefully the next phase is that it opens up to more species and we continually collect this, and, when there is an assessment coming up, make a push with folks to say, hey, we kind of need this one right now, but, as it gets used by more and more people, we start just building that data up over time.

MR. CONKLIN: So it would be with the same app that people are -- Because I don't want to have a bunch of different projects that --

MR. CARMICHAEL: It's the same app. Hopefully, one day, you will go to it and there's an alert that, oh, by the way, this now includes multiple species, and you will get a species drop-down list to pick your species when you enter it.

MR. BELL: All right. Do you have some additional updates?

MS. VON HARTEN: Yes, and so just the projects in progress, and you just heard about the scamp project. Also, we just got funding, through the NOAA FIS grant opportunity, to fund our project called FISHstory, and I want to thank Jack McGovern very much for submitting this on our behalf, and this is going to be a project that is looking at -- This is the Rusty project, and I'm sure that Rusty has probably talked to some of you, at one time or another, about all the photos he has from the headboats in the Daytona Beach area.

This is going to be looking at all of those photos and using a crowdsourcing approach to actually get some of the analysis done, and so we're going to be using probably about 700 of his photos and uploading them to an online platform called Zooniverse, which allows you to develop a project on their website, develop training modules that teaches people how to analyze the photos in the way that you want them analyzed, and then they go in and they start telling -- What they're going to tell us for this project is what species are in these photos, and then we're going to get those verified by some experts and come up with a subset of actual species that we're seeing in these photos and then choose one of them to do some actual analysis on the lengths of these fish, using an opensource software called Image J that can actually analyze the images for the lengths.

Again, this is going to fill in that data gap that we have from prior to when the fishery-dependent surveys were in place, and we're also working with Ken Brennan on this project as well, and this is one that Ken has been trying to get funded for a long time as well, and we're super excited, because these projects, these photos, are really, really fun to look at.

Here is what the Zooniverse platform kind of looks like, and all these different pictures that you see here are different projects. There is projects in Africa that have tons of images of safari animals, and they need to identify how many zebras there were in this particular area at this certain time, but we will be hiring a part-time staff person to help with this project as well, and so hopefully the funding will come through sometime in the spring, I think, and we'll get started.

Here is some more pictures. A lot of these, Rusty has like personal family connections with, but it's really cool, because I think there's going to be some other information that we can glean from these photos, like here is the whole fishing crew, the people that were out fishing, and so looking at the number of people that were out fishing, and so I'm pretty excited about this project.

MR. BELL: It's kind of like mining history.

MS. VON HARTEN: Yes.

DR. LANEY: I am wondering if there are other photo archives like this along the coast, and so have we tried to solicit any of those at all? Is the plan to expand in the future?

MS. VON HARTEN: Yes, and we're starting small. Again, with a lot of these citizen science projects, we're just trying to pilot it to see if these approaches work and what the methodology needs to be, and, again, because it's anybody that can log on to our Zooniverse project, and not just fishermen, but anybody, and get trained to analyze these photos. Our hope is that, one day, we can help facilitate a portal, where people can submit images, and then we can use this strategy to get more pictures analyzed, but, yes, there's lots of pictures out there.

MR. BELL: Once the concept is kind of proven and it can expand, and there is other Rusty's out there somewhere.

DR. LANEY: In addition to Rusty, I was thinking of the photographers that always meet you at the dock, or at least at the Oregon Inlet Fishing Center that's the case, and I know, a lot of times, anglers don't purchase the photos, and I don't know what happens to them. Maybe sometimes they get destroyed, but maybe sometimes they get stuck into an archive somewhere.

MR. BELL: Good point. All right. Is that the conclusion of your project update?

MS. VON HARTEN: We do have a couple of other projects in the works. We just submitted a small project that we're a partner on, and we're not the PI on, with NC State, with Jeff Buckel, one of our SSC members, and also SECOORA, to do some acoustic telemetry work on some artificial and natural reef sites off of North Carolina, to kind of look at some of our research needs related to habitat usage and also looking at possibly developing ways to get boat counts at some of these areas that can help us figure out what kind of usage some of these sites are having from fishing.

Then another larger project that is looking at species range shifts with some partners at Stony Brook University and also NOAA and SECOORA again, and so lots of good things in the works. We're already getting some folks interested in expanding the scamp app to other species, like Chris was asking earlier, and so that's good as well.

MR. BELL: As you can see just from that little list, there is all sorts of potential out there, and it's really about partnerships and identifying partnerships and funding, but it's got a lot of potential to help us fill some gaps. Any other questions for Amber? Any other business to come before the Citizen Science Committee? Seeing none, I yield about six minutes for the good of the cause.

(Whereupon, the meeting adjourned on December 6, 2018.)

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