SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL

CITIZEN SCIENCE COMMITTEE

Westin Jekyll Island
Jekyll Island, Georgia

March 5, 2018

SUMMARY MINUTES

Committee Members
Mark Brown, Chair   Ben Hartig, Vice-Chair
Zack Bowen   Chester Brewer
Chris Conklin   Dr. Michelle Duval
Tim Griner   Charlie Phillips

Council Members
Anna Beckwith   Mel Bell
Doug Haymans   Dr. Wilson Laney
Jessica McCawley

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Gregg Waugh   John Carmichael
Dr. Brian Cheuvront   Myra Brouwer
Kimberly Cole   Dr. Chip Collier
Mike Collins   Dr. Mike Errigo
John Hadley   Kim Iverson
Roger Pugliese   Cameron Rhodes
Amber Von Harten   Christina Wiegand

Observers & Participants
LCDR Trish Bennett   Dr. Jack McGovern
Dr. Erik Williams   Monica Smit-Brunello
Rick DeVictor   Dr. Marcel Reichert
Leann Bosarge   Erika Burgess
Karla Gore

Other observers & participants attached.

The Citizen Science Committee of the South Atlantic Fishery Management Council convened at the Westin Jekyll Island, Jekyll Island, Georgia, Monday morning, March 5, 2018, and was called to order by Chairman Mark Brown.

MR. BROWN: We are going to call to order the Citizen Science Committee. As a reminder, the members of the committee are myself, Ben Hartig, Bob Beal, Zack Bowen, Chester Brewer, Chris Conklin, Michelle Duval, Tim Griner, and Charlie Phillips.

Next is Approval of the Agenda. Are there any modifications to the agenda? Seeing none, the agenda stands approved. The next item of business is the Approval of our December 2017 Committee Minutes. Were there any modifications to the minutes? Seeing none, the minutes stand approved. The next item of business is to Review Formal Recommendations from Citizen Science Action Teams, and so, Amber, I turn it over to you.

MS. VON HARTEN: Thank you, Mr. Chairman. Good morning, everybody. You have one document for our committee meeting. How nice is that? What I'm going to be walking you through today is some of the first recommendations that are coming from our five Action Teams that have been meeting since August, and, in the first part of this document, I kind of wanted to just outline how we got to where we are.

Just to refresh everybody's memory about how the work of the Action Teams fits into the program blueprint that was developed from the January 2016 workshop, and, before I get started, I just wanted to acknowledge that we have lots of Action Team members in the room, and I just want to extend a huge thank you to everyone for all of the work that they've put in.

I just wanted to extend a thank you to our Action Teams. They have been meeting on a monthly basis since August and doing lots of work in between our meetings, and just what we've accomplished so far, in terms of developing kind of the policies for the programs is just pretty impressive, and I just want to thank them for all of their hard work and their leadership for moving this forward.

Just to refresh your memory, this is the organizational chart that was outlined in the citizen science program blueprint, and it came out of the recommendations and discussions from the workshop, and it just kind of outlines the possible infrastructure for managing and operating the program eventually, down the road, once we're fully operational, but just to remind you that we did talk about establishing an advisory committee as well as these program action teams, which is what we've done. You all did that last year, and their charge was to work with the terms of reference that you all adopted last June to help develop program policies, operating policies, for the citizen science program.

We have the five programmatic areas of Volunteers; Data Management; Projects/Topics Management; Communication, Outreach, & Education; and Finance & Infrastructure, all key components of developing the program.

All of these A-Teams have a very diverse and wide array of fishery stakeholder representation. There is forty-five members, and remember I said we've been meeting since August, and we've done all these meetings virtually, via webinar, which is pretty impressive in itself, but this is just a quick breakdown of the different stakeholder representation we have on our A-Teams, with

fishermen actually being the biggest component, along with federal agency and scientist folks, state agencies, outreach and Sea Grant representatives, and also researchers and academics from different institutions, and so it's pretty impressive. I think it's a great representation of who we're going to be interacting with in the program.

Also, in the blueprint, besides developing these Action Teams, there were some other recommendations in that, and I have just provided this table to kind of give you a status update of how those other recommendations from the blueprint are being carried out, and so the first one was hiring the full-time program manager, which you did that in December of 2017, and expanding partnerships. That is something that is always in progress, and the Finance & Infrastructure and Data Management A-Teams have been working specifically on some tasks to move that forward.

Short-term funding options, as we've been talking about and hearing about, trying to find some support for the first pilot project, which has now been secured. Contracts are being signed, and we're very excited to be getting started with that this month, and so I want to thank all the partners that brought that together to make that happen.

Then also these last few were some that will be future steps that will be initiated, as appropriate, once the A-Team work is complete, and that includes the other tiers in the organizational infrastructure of establishing a program oversight board, operations committee, and then probably these A-Teams and the advisory panel will morph into something more like an advisory committee as we move forward.

The work of the Action Teams, I just want to make sure that everybody is still aware that we do have our Citizen Science Program website. I try really hard to update the website or the webpage for the program, and each A-Team has their individual webpage that has a list of meeting dates, webinar registrations, and also all of the meeting summaries from every meeting that we have. I post those after each round, and I am little -- I haven't posted the ones from last week. We had four meetings last week, and I'm still working on those summaries.

Please use that as a resource, and I've also been trying to send out emails to all the council members to let you know when the next round of webinars are going to be coming up. We just got the Federal Register notice in for the March meeting, and so I'll be sending out an email to you guys with the list of dates and webinar links for those meetings next month, or this month, I guess.

Each of the A-Teams has a meeting individually, but we wanted to have an opportunity for all the A-Team members to come together on one meeting and talk about what they've been working on and have an opportunity for them to get feedback from the other A-Team members on some of what they've been working on and also identify any overlapping tasks or areas that they could be working on together, because, as we move forward, it's really been pretty cohesive in how this has developed. There is different tasks that overlaps amongst different A-Teams, and so we're really starting to expand that and having the A-Teams working together on specific tasks moving forward.

The briefing materials for that All-Hands A-Team are also on the website, and I encourage you to look at the presentations that the teams put together. The co-chairs of each of the A-Teams presented that information, and they did a really great job identifying what they've been working on and how they're developing their first round of recommendations and some of the things that

are being challenged with and getting feedback on those challenging items from other A-Teams and looking at where they can collaborate together.

This Section 3 is the first round of program recommendations. Like I said, this is Round 1, and I anticipate that probably in June you will be reviewing some more. Even since the January meeting, some of the A-Teams have already begun their second round of recommendations and have those ready and have actual products that we are going to be able to show you that we'll be able to implement into the program.

What I am looking for, as we move through these recommendations, is just some guidance and feedback on the recommendations, what you like about them and what you think needs to be tweaked, any kind of feedback, because, eventually, these would be adopted by you guys as the operating policies for the program, and they're going to help shape the different products that we develop for the program, in terms of ways to support volunteer engagement, ways to support projects, the way we pursue different funding models for the program, all of those different components that the A-Teams have been working on. Any questions before I move forward with that? Okay.

The first A-Team recommendations we're going to look at are from the Communication, Outreach, & Education Team, and they had the most recommendations, the first one being that they really felt it was important that any projects that we support under the program should consider pre-testing and post-validation of the data collection method to be used, and so they did this really impressive inventory of communication approaches and tools that were used to work with project participants, and most of them were other citizen science projects, to see how to engage and communicate about projects with participants.

They honed in on this particular component early on, the importance of pilot testing the data collection methods that any project is going to do, and so making sure that the participants are comfortable with how to report data, whether it's a mobile app or an online form or a paper form or whatever method that's being used for a project, that that's tested prior to the actual project starting and that participants are also comfortable with sharing the data and have an opportunity to provide feedback on that data collection method. That is their first recommendation. I will just go through each of the A-Teams and then maybe stop at the end of each A-Team and have discussion.

The second recommendation is the need to establish training guidelines for projects to follow. They spent a lot of time looking at best practices for training, to make sure that projects successfully engage with volunteers, and they also emphasized that they felt that training should not just contain training on the project and how to collect data, but also the purpose and mission of the project and the science behind the project and how that works and how it could potentially be used by the council.

Also, looking at, as appropriate, train-the-trainer approaches for certain types of projects, especially if it's a fisherman teaching another fisherman how to collect data for a specific project, and, again, the use of test portals for projects specifically containing mobile sites or apps, so people can kind of play around with testing out a mobile app or a mobile site before the project, and so kind of a two-tiered training approach. Then, of course, that's also going to be one of the areas

that overlaps with the Volunteers Action Team, in terms of how they develop volunteer training guidelines as well.

The third recommendation is the program should help support evaluation of volunteer expectations and attitudes. From an outreach perspective, they felt that really understanding what motivates volunteers to participate in a project and what kind of expectations they have will help recruit and retain volunteers over the long term, and not just looking at evaluations of the project after completion, but also during the project, so that you can help kind of shift your messaging or shift your approaches to make sure that volunteers are still participating effectively in the project.

The fourth recommendation is the program should establish guidelines for disseminating results of projects. They spent a lot of time looking at the appropriate format and context for different audiences to receive the results, whether that's electronic or newsletters or blogs, all the way to scientific journal publication, and that delivery of information needs to be timely, so that you keep volunteers up to speed with what's going on with the project. That's another way to also incorporate recognizing volunteers, like the champions, the high-liner participants, that are really motivated and out there collecting data on a regular basis and having an opportunity to recognize them and their contributions in the project.

Projects also need to have a clear plan for sharing data and results of projects. That's another way to give back to participants, is giving them a way to view their personal data contributions as well as being able to share aggregated data results, as appropriate. That's a really great outreach tool for engaging and retaining volunteers.

The last one is talking about supporting and developing guidelines for project promotion and sharing results that consider audience type. They did this really great matrix that kind of outlined the different audiences that you might be engaging with in a project and what communication approaches were most effective for each audience, and so, for example, promoting a project or sharing results with fishermen in the general public may have very different messaging and focuses than say for a scientist.

Scientists may be more interested in how the data can be accessed and used and the data quality issues around the project, and so customizing that messaging and the frequency and tailoring the communication approach is going to be really important in making sure that projects that come under the program are demonstrating how they're going to do that. That is the communication recommendations. Is there any guidance on any of these?

MR. HARTIG: I would just say that, overall, from what I have heard in research and citizen science, you're right on track with everything that you're doing. The key things that are important, in giving back to the people and the train-the-trainer aspect, things of that nature, are key in this program, and the two-way interconnections through the whole process are key in going forward. The collaborative -- What we started out with is certainly shown through this entire part of the communications effort, and so I think it's a great move forward.

DR. DUVAL: I've been on the webinars, and I've been able to listen in on -- I have been really impressed with the dialogue and the involvement and the interaction of the A-Team members, and hats off to you, Amber, for managing to do all of this via webinar, which is a huge cost savings,

and for getting all the summaries up there so that people, even if we can't attend the webinar, we can go back and review what the A-Team has done and stay in touch that way.

I agree with Ben, everything that he said about all of these recommendations. They are right on target, and I guess, now that the scamp grouper pilot project is moving forward, in terms of the administrative steps to establish those contracts, how are you all thinking about implementing these for that project? Is there anything that you can share at this point, I guess maybe is my question.

MS. VON HARTEN: I was going to get into that further down, when I talk about the next steps, because that's the great thing about having these Action Teams, is, now that we have a project in mind, which has kind of been -- Not the stumbling block, but everybody has been trying to wrap their head around we're developing these policies, but how does this relate to a project, and so, now that we have a project that they can actually apply some of these policies towards, I think it's going to be really helpful.

For instance, the Communication A-Team is going to be working on and developing the communication plan for the project, and so they will be able to develop a template using the pilot project, but then be able to step back and say, okay, these are the general, overall guidelines for developing a communication plan that a project must present if they're going to be endorsed by our program.

Moving on, Finance & Infrastructure has one recommendation so far. This is the smallest of our A-Teams, and it started out with just two members, and we have been slowly growing that A-Team. We're really looking for more representation of folks that have experience with foundations and other non-profits, just to kind of get a better sense of what we can learn from that different type of funding approach.

The first recommendation is that the council should retain operational oversight of the Citizen Science Program and identify options and pathways for securing the necessary funds to do so, and so they had discussions about what does the budget look like for a program, and they kind of came up with a two-tiered approach, or a two-entity budget approach, that divides the budget into operational and administrative activities, and so the day-to-day operation of the program, the program manager, all those things that are currently happening on the council side of things.

Then a programmatic and project activities side of the budget that would help support specific projects in volunteer management and database management and, eventually, maybe down the road, include some additional non-operational staff that might need to be hired on a project-by-project basis, if we get to that level. That is their recommendation.

DR. DUVAL: I think this A-Team has probably -- They have got the biggest elephant in the room to struggle with, really, to ensure the continuity of this program, and I don't necessarily -- This is not the group of folks that is necessarily going to be able to do the work to actually develop this two-entity type of approach. It's going to take a partnership with another existing organization, or creation of another organization, to do that, but this piece is really key to ensuring the success of this program, given the constraints that the council has, in terms of funding.

This is the part that is maybe not quite as sexy, but it's the most important, and it's the one that makes me the most nervous, quite frankly, just thinking about budgets and looking ahead. I don't have any answers, but I will certainly be spying on future webinars, once I move on from here, but I think this A-Team has done a great job of trying to think through, very thoroughly, all of the different approaches that we could take.

MS. VON HARTEN: I just want to let you know kind of some of the next work that this team has been working on is identifying different types of funding models that are out there, and so they've been looking at everything from foundations, friends-of groups, to crowdfunding, doing a Go Fund Me type of campaign and can we do that, and we're trying to get guidance on that.

We just recently had a presentation from the National Marine Sanctuary Foundation about how they operate, how they came to be in existence, and, the more we do those kinds of activities, the more we're finding out that this might be a really great partner in our program, so that maybe we don't have to establish our own foundation or our own friends-of groups, because there is entities out there that are already in existence, and that one was particularly interesting, because it's kind of affiliated with a federal program already, and that seemed to be a good match, and so, the more information gathering we do, the more we're finding out about great opportunities for partnering with existing groups already and not having to reinvent the wheel.

MR. BELL: I think you just answered it, but I was curious about -- You can take grants, or you can take money, to run operationally the operational side? You can't? Then the type of funding you are talking about from -- That would be a foundation or something would come in and just run the piece of that from their own funding? That's what I am trying to figure out, is how do you make the money go from -- Michelle is right that, to keep this thing running, you've got to have support, and so the options are to seek external support, but then they actually run parts of it or something?

MS. VON HARTEN: As you all know, the council does not have the ability to apply for and receive grant money, except for internal NOAA opportunities, and even those internal NOAA opportunities are not necessarily appropriate to provide operational expenses. They can provide support for projects, but not necessarily just the day-to-day operations. A lot of grant programs don't necessarily like to do that, provide administrative costs, and so that's what this recommendation is about, and this A-Team is recommending that the operational oversight of the program, that side of the budget, stays within the council.

Projects could be supportive through partnerships like with the foundation that I just described, and that's kind of how we're working our first pilot project. It's a partnership between several entities, and we're not getting the money, but we're partnering at the program to carry out the project.

DR. DUVAL: I guess maybe just to speak a little bit more to Mel's concern, and we've mentioned this in the past, but I see this two-entity type of approach as, if there is an existing organization whose mission is aligned with that of this program, that they might have the ability to house or fundraise for some of those administrative aspects of the program, like volunteer oversight, like data management, and so working in conjunction with the program manager, who would remain housed as council staff, but perhaps an organization like this could fund the salary of an additional

person, who would then be in charge of that volunteer management, and maybe that person is co-located in the council offices.

This is a lot of how ACCSP has moved forward with states that have been recently coming onboard with administration of the APAIS intercept program in the past few years, is that these are employees that are ACCSP employees, or ASMFC employees, but they are housed or co-located within those individual state agencies, and so that's something that I have been really intrigued with.

DR. LANEY: Mr. Chairman, I am not on your committee, and I'm not sure that this suggestion fits just here, but I think it may, because it sort of tags onto what Michelle just said, but it seems to me that one thing it would be really advantageous to do, as this whole program is implemented, is to somehow document the cost savings that result from collecting data and using a Citizen Science Program approach to it. In other words, what would it have cost to get these same data if we did it in a conventional manner using federal or state agency staff and/or personnel to do it?

One of the primary motivations for setting it up in the first place was we know we're not going to have the funding to do it conventionally, but it occurs to me that, when you go to potential funders, if one piece of information you could provide them was, hey, here's how much money we're saving society in general by setting it up this way, as opposed to doing it conventionally, that might be an additional incentive for foundations and others who are looking to achieve the maximum bang for their buck to go ahead and fund a citizen science approach, as opposed to a conventional approach, and I don't know whether that's built-in here anywhere or not, and I don't even know how we would do it, but, still, it seems like maybe a good thing to try and do.

MS. VON HARTEN: That's a great suggestion, Wilson, and definitely it's something that we can incorporate as we move forward with this pilot project and maybe think about that, the traditional versus citizen science approach and the cost savings, and then also, to take that even a step further, but also the timeliness of the data that is collected and its usability in management. I mean, if you remember, going back, that's the whole point of this program, is to make sure that we design the program to support projects that specifically are collecting data that is -- The project is designed in a way that can be used in the council decision-making process and science, and so ways to think about that are also helpful.

DR. LANEY: As a follow-up, Michelle already alluded to the fact that you were able to do all of these meetings by webinar, and so that obviously saved a tremendous amount of travel dollars, which would be nice to know how much you did actually save, but the other thing that I know North Carolina does for the North Carolina Non-Game Wildlife Advisory Committee, for those members who are non-federal, they have everybody fill out the forms indicating how much of their time was donated and how much that time is worth, and I guess there's a formula that the Wildlife Resources Commission can use to determine how much their time was worth, and so that can -- In that case, that can be used as match for some of their federal grant funding, and I don't know whether that works this way for this program or not, but that's something else you may want to think about trying to document as you go through the program start-up.

MS. VON HARTEN: Okay, and so any feedback or guidance or additional information that you might need from the A-Teams on this particular recommendation as they continue to move forward and work towards looking at different funding models? I just want to make sure. Okay. One of

the things that this A-Team also worked on was developing a promotional piece that we could share with potential partners, funding partners or whoever wants to be a partner with the program, and I think some of the things that Wilson just outlined is something that could be really useful to add to that piece, to tell that side of the story of how this might actually be a cost-savings measure, using this approach.

On to data management. The program should consider use a data management resources inventory as a reference for development of proposal review criteria and project and data standards, and so this A-Team developed almost -- It essentially was a survey to send out to all of our existing data management types of agencies and organizations that deal with fisheries data, citizen science data, to get kind of a baseline of information about how those different projects manage the data that comes into their programs, everything from storage, metadata, data provision and use, the funding and cost of the data collection program, and we did a follow-up circle of questions specifically related to the cost of some of their data management systems, to get a better sense of what that would look like.

What we discovered was that there is lots of existing resources out there that could also be data management partners. Obviously, we have folks like ACCSP that would be really critical to helping the council's program manage their data coming in through projects under the program, and so, now that we have all of this really rich information about an inventory of data management resources, the team wants to make sure that we use that to develop criteria that any project that comes in would need to outline in their kind of project summary of what kind of data management plan they have in place.

Then, also, right now, the team is actually developing some broad, general project and data standards and then some specific ones for the scamp pilot project using a tool that ACCSP uses called a recommendations document, and it's a document that you sit down with all of your project team members, and you kind of hash out everybody's data needs and concerns and make sure that those standards are developed from the very beginning of a project, to make sure that you get the data that the scientists need and you also meet the data collection needs of your volunteers, and so that's something they're going to be working on in the coming months. Any thoughts on this one?

Then, moving on to Projects & Topics, they felt the program should use existing resources, such as the council's research and monitoring plan, to identify priority topics and project ideas for the program. They began some of their work looking at how do we generate what kinds of projects the council is interested in looking at, what are the research topics and ideas that the program could support and identify some existing resources that could help feed into that process, and the main one was the council's research and monitoring plan, which is something that you all update every couple of years, and that could serve as the source document for further development of topics.

That kind of led into a discussion of, well, is that research and monitoring plan really the document that we could present to the public to let them know, or partners, to let them know what kinds of projects we were interested in, and the answer was no, because that document is a little bit more technical in nature and pretty species-specific on some accounts, because that does include SEDAR research recommendations.

Then that led them to their second recommendation, which was to develop a separate citizen science research needs document and then developing some kind of process for getting public

input on that and review of the document on a regular basis, and so that's something that the A-Teams are -- We have a citizen science research needs document draft that we have been circulating amongst the A-Teams to get their initial feedback on, and that document was based on the research and monitoring plan, which, of course, includes input from all of our APs, the SSC, you all at the council level, and also SEDAR research recommendations, but it also includes some of the specific feedback we got from the citizen science workshop we had in 2016.

That is something that you all -- I am hopefully going to be bringing that to you in June for your review, and so the A-Teams are going to be reviewing it right now, and each of the upcoming advisory panels, Snapper Grouper and Mackerel Cobia, will be reviewing it, and also the SSC will be reviewing it at their meeting. Then, once that's kind of been vetted through all those different inputs, we'll be bringing it to you guys to take a look at, and hopefully that will be the document that carries forward kind of the different types of projects that we're interested in pursuing.

That document is very topic oriented, versus species oriented, and so things like maturity data and age sampling. That's the kinds of topics that we're interested in, and then, underneath that topic, we have some suggestions or ideas for what types of volunteers could be involved, what the anticipated outcomes are, what type of data needs to be collected, and it's a very simple document that we could present to any stakeholder or a funding partner to kind of help guide the types of projects that we're interested in.

Then their third recommendation was to possibly develop criteria for developing a project endorsement program, and what this is about is, obviously, as we've been talking today, the funding resources are limited, and I don't think we ever anticipate that the council would be a granting body, or the council's program would be a granting body, where we were actually giving out money for projects, and so, in the absence of funding, what is a way that we could encourage partners to start developing projects that meet our interests and research needs?

We thought about this idea of a project endorsement program, where we would have specific criteria for a project to present their project summary to us, and, if they meet our criteria, they get our endorsement, the council's endorsement, that their project is designed in a way that it can be used in science and management, and so that's something that this A-Team is starting to develop right now, and this is based off of an ASMFC habitat program that has a similar initiative, and Wilson is nodding, and I'm sure he knows about it.

I talked at length with their program manager about how they operated their endorsement program, and I think that it could be a really good model for us, because we want to give some value to the program, and we want to encourage partners to come to us and get our stamp of approval, and that's the difference with some other traditional research projects, is, with this endorsement program, it kind of guarantees that the project has been designed in this way that the council can actually use the information. Any thoughts on that?

DR. LANEY: I was just going to make sure that you all were aware of that. It's actually the Atlantic Coastal Fish Habitat Partnership that does the endorsements like that, and they have already developed a whole criteria and everything, and so I think that would be very useful as you work through this.

DR. DUVAL: Likewise, I completely support that approach, as well as the research needs document. I think those are going to help -- I mean, that's going to help get the word out and pull in the kind of information that someone else would pay for that we need.

MS. VON HARTEN: Okay. Moving on to Volunteers, this team has been working on ways to engage with volunteers and promote projects, and, early on, they recognized that we kind of needed to better understand who our universe of potential citizen science volunteers were going to be. They are recommending that we develop a volunteer interest form that kind of serves as the initial mechanism for engaging volunteers in the program, to better understand who they are, what interest they have in participating, what kind of skills they may have to already bring to the table, and their experience and what kind of training needs that might need to happen if they don't have the skillset for specific types of projects.

This team has been working very diligently on developing this lengthy form that we're going to hopefully translate into an online form. They have also been working with the Projects & Topics Management Team, because, initially, we took the approach of this was just going to focus on fishermen as volunteers, but then we kind of recognized that fishermen are not our only target audiences for the program, but we also want to engage scientists and researchers and NGOs and other different types of partners, and so it will be helpful to know what they had to bring to the table and what interest they had in participating in the program, and so we'll have a whole separate section of this form to address different types of stakeholders.

Then that also led to some of our upcoming tasks of working with the Data Management Team, recognizing that we're not going to have just data coming in from projects, but we're going to have all this data on volunteers as well, and so we're going to have to figure out a way to manage that data as well.

MR. BELL: Wilson just whispered in my ear, and he's right that we talk about stakeholders and the fishermen and all, but keep in mind that there's a lot to be gained from communicating also with divers, who are able to observe things, and they're also fishermen as well, but it's a group you want to make sure that you include in all of that.

MS. VON HARTEN: I think we do have divers identified on that volunteer interest form, but that's a good point. Again, a lot of these draft documents and things are available for you all to look at, if you ever wanted to, and I will show you -- It's in this document, the very last page, and there's a series of Google Drive folders that we have created for each A-Team that has all of the products that they've been developing over time, and so it's pretty information-rich there.

The second recommendation from the Volunteers Team is to develop training plan guidelines to help projects develop not just initial training for a project, but also kind of like continuing education. As a project is happening, making sure that you have refreshers for volunteers during the course of a project and also looking at how training guidelines might need to vary by the different types of projects there.

Some projects will lend themselves to in-person training if they're more -- For instance, if you're collecting biological samples and you have to train fishermen how to collect biological samples, those are going to probably be better served by having in-person training, versus maybe a mobile

app type of project could be delivered via webinar and things like that. Again, they're going to be working on the training plan for the scamp project in the coming weeks.

Then, also, on the All-Hands A-Team meeting, as it became more and more apparent that there was going to be some overlap in some of the work that was going to be happening amongst the A-Teams, they recommended that we designate some liaisons between A-Teams, to help coordinate some of that collaboration, and that's already happening. We have some of that happening this meeting, getting some folks together, the co-chairs, just to talk informally about some of the ways that they can help coordinate some of that work between the A-Teams, and that's what I was going to get into next, with the next steps of the Action Teams, to kind of show you some of the things that they're going to be working on.

The Communication & Outreach folks, again, like I had mentioned earlier, they are going to be working on that communication plan for the pilot project. They have already reviewed the -- All the A-Teams now have reviewed the citizen science research needs document, and I am incorporating some of their input into that document. Then they're going to be working with the Volunteers A-Team on that training plan.

For Finance & Infrastructure, like I mentioned earlier, it was originally our smallest A-Team, and their goal was to kind of recruit up to three additional members to that A-Team, and we have added three new members since this A-Team started up, but we would like to have more expertise in that non-profit and foundation and kind of governmental relations realm, and so we're working on that.

They have been putting together a summary of these funding models, and, again, that's part of those links at the back of this document. Then, given the feedback on this promotional piece that they developed, start kind of shopping that around to different partners and seeing where we can find some additional information about funding and support.

Data Management has a whole host of things that they're going to be working on. The main thing, as I mentioned just a second ago, was figuring out how we want that database of volunteer data to look like and make sure that that data is secure, but also working on that recommendations document, which would kind of serve as the data collection plan for the pilot project.

They have some overlap with some of the other A-Teams. They're going to actually go back and look at the Communications A-Team inventory, to see if they have any examples of the projects that they explored and how they manage data. Then working with the Projects & Topics A-Team as they develop the project management plan and how that relates back to data management.

The Projects & Topics Team, again, they are going to be looking at how to develop a project endorsement program and then also working on looking at how to pull a project design team together for the pilot project. Who are the key players that need to come together to kind of plan out the pilot project, and we have some ideas of how to make that happen with some scientists involved and fishermen, possibly managers, to start planning that project from the get-go. Then, again, as I already mentioned, the Volunteers will be working with a couple of the other A-Teams, Communications and Data Management.

This is kind of our infographic that we came up with, and I think I've shown this to you before, with our scientists, our fishermen, and our managers at the table, all working towards more data, better management, better fishing, and better science.

This is the resource material that I keep talking about. If you take some time, you will find and see all of the work that these A-Teams have been doing and some of their products that they have developed. It does have a draft of the volunteer interest form, the data management resources survey, all of those things that they've been working on. It's pretty amazing. With that, that concludes everything that I wanted to cover today, and I encourage you to -- This is your chance to give me any feedback on these recommendations or if you would like to see any additional information from any of the A-Teams related to any of these topics that I talked about today that you would like to see worked on.

DR. LANEY: I'm not on the committee, but I will just say a hearty endorsement of the training program. I think you can't do too much training. I know, in the past at least, with respect to striped bass and volunteer angler tagging, there were some professionals who felt that you couldn't train a volunteer to appropriately tag a striped bass. I am not one of the professionals, hopefully professional, who believes that, but I think it's critical for buy-in on the part of those assessment scientists and other professionals who will be ultimately using the data that you demonstrate to them that you have done a bang-up job training your volunteers.

I will share a personal experience with you. I called, not too long ago -- I happened to catch some very nice spotted seatrout in the surf on the Outer Banks, and I wanted to get as much information for those two fish as possible, and so I called Michelle's agency and talked to the guys who do the otolith extraction, and they gave me detailed and explicit instructions over the telephone as to how to extract those otoliths.

Well, long story short, I eventually got them extracted, but those poor fish appeared to have been rendered through a meat grinder of some sort, and it's amazing to me that I got them extracted without breaking the otoliths, and so it ain't easy, necessarily. It's something that definitely you benefit from hands-on, personal instruction for, especially if you're going to be taking hard parts, and so I just say it again and again, that you can't train too much, and I think it's critical for your credibility of the program that the scientists who are going to be using those data know that you're doing that and that your volunteers are certified.

MR. HARTIG: I think one of the critical things, as we look at our science partners who will be working with us, in your endorsement program is somehow we have to -- If these are assessment-related studies, somehow we have to partner with the Southeast Fisheries Science Center and Erik over there to make sure -- I have seen studies in the past that have been done that weren't able to be used in the assessment. It's going to be critical to close this loop with you guys to make sure that these studies are conducted in a way that the information is usable for an assessment, and so I think your role in this is going to be critical down the line, to make sure that the information is usable in that process.

DR. DUVAL: First, I just wanted to ask Dr. Laney if he caught those speckled trout before or after the closure, and you can answer me offline, and, second, I was poking around the Google Drives, and the links to those drives are not like on the A-Teams pages, but the documents, like the summaries and everything like that, are housed in the Google Drives, right?

MS. VON HARTEN: The summaries are on the A-Team webpages. I have not had a chance to put all of this onto the A-Team pages, but that's my intent. This all kind of came together after the All-Hands meeting in January, because some of the A-Teams right away started using Google Drive to work on some of their stuff, and others didn't, and so then I finally got everybody comfortable enough to start using this as kind of a warehouse of information for all their work.

DR. DUVAL: That was just my question, is if those links were going to be posted on each team's webpage. Thanks.

DR. LANEY: To respond to Dr. Duval, yes, ma'am, those fish were caught well before the closure, back in October, and they were consumed by the family, but tissue from both of those fish and all the associated data went to the North Carolina State Museum of Natural Sciences, and the otoliths are still sitting on my nightstand, waiting to get them down to your age folks in the Morehead Office, and so I will have those down to them hopefully before too long.

MR. BROWN: Is there any other business to come before the committee? Seeing none, the Citizen Science Committee stands adjourned.

(Whereupon, the meeting adjourned on March 5, 2018.)

Certified By: _____ Date: _____

Transcribed By:
Amanda Thomas
March 27, 2018

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6

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7

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