

TABLE OF CONTENTS

Table of Contents.....	1
<u>Table of Motions.....</u>	<u>3</u>
<u>Adoption of Agenda.....</u>	<u>5</u>
<u>Consideration of 175th and 175th Council Meeting Verbatim Transcriptions.....</u>	<u>5</u>
<u>Executive Director's Report.....</u>	<u>5</u>
<u>Five-Year Strategic Plan Presentation for CFMC Final Action....</u>	<u>6</u>
<u>DAP Chairs Reports on DAP Meetings on Compatible Regulations..</u>	<u>17</u>
<u>St. Thomas/St. John.....</u>	<u>17</u>
<u>Puerto Rico.....</u>	<u>23</u>
<u>Presentation on Executive Order 14008 Section 316(a).....</u>	<u>28</u>
<u>DAP Chairs Reports on DAP Meetings on Compatible Regulations (Continued).....</u>	<u>37</u>
<u>St. Croix.....</u>	<u>37</u>
<u>Discussion on Trawling Gear in Federal Waters.....</u>	<u>38</u>
<u>Update on Progress for Life History of Shallow-Water Reef Fishes</u>	<u>53</u>
<u>Discussion of Sargassum Issues and Role as Essential Fish Habitat.....</u>	<u>67</u>
<u>Public Comment.....</u>	<u>76</u>
<u>Southeast Fisheries Science Center Update.....</u>	<u>80</u>
<u>Island-Based FMP Update.....</u>	<u>103</u>
<u>Modification to the Buoy Gear Definition.....</u>	<u>103</u>
<u>Timing of Red Hind Seasonal Closures in Puerto Rico Federal Waters.....</u>	<u>116</u>
<u>Dolphinfish Research Program Update.....</u>	<u>135</u>
<u>Outreach and Education Report.....</u>	<u>157</u>

1	<u>Reports by Liaison Officers.....</u>	164
2	<u>Puerto Rico.....</u>	164
3	<u>St. Thomas/St. John.....</u>	166
4	<u>St. Croix.....</u>	169
5		
6	<u>Options for Spiny Lobster Accountability Measures.....</u>	172
7		
8	<u>Deepwater Squid Fishing.....</u>	182
9		
10	<u>Enforcement Issues.....</u>	190
11	<u>Puerto Rico DNER.....</u>	190
12	<u>USVI DPNR.....</u>	190
13	<u>NMFS/NOAA.....</u>	191
14		
15	<u>CFMC Advisory Bodies Membership.....</u>	193
16		
17	<u>Next CFMC Meetings in 2022.....</u>	197
18		
19	<u>Adjournment.....</u>	200
20		
21	- - -	
22		

TABLE OF MOTIONS

PAGE 9: Motion to accept the five-year strategic plan, as presented by Michelle Duval. [The motion carried on page 14.](#)

PAGE 14: Motion to approve the process to implement the five-year strategic plan by creating a five-year strategic plan interdisciplinary planning team and a council advisory panel composed of representatives from the governments of Puerto Rico and the U.S. Virgin Islands and the chairs of the three District Advisory Panels and the Science and Statistical Committee and the Ecosystem-Based Fishery Management TAP. [The motion carried on page 15.](#)

PAGE 42: Motion to prohibit the use of trawling gear from within the MPAs of the U.S. Caribbean EEZ. [The motion carried on page 46.](#)

PAGE 46: Motion to prohibit the use of gillnets, trammel nets, trawl nets, driftnets, and purse seines for the harvesting of fish in the U.S. Caribbean EEZ. [The motion carried on page 53.](#)

PAGE 110: Motion in Action 1 to make Alternative 2 the preferred alternative. [The motion carried on page 110.](#)

PAGE 111: Motion to accept Action 2, Alternative 3 to increase the number of hooks to twenty-five for all commercial fishing where buoy gear use is allowed for Puerto Rico, St. Thomas and St. John, and St. Croix. [The motion carried on page 111.](#)

PAGE 111: Motion to approve the generic amendment to the fishery management plan for Puerto Rico, St. Thomas and St. John, and St. Croix, the modification of buoy gear definition and use with the selected preferred alternatives and to submit the amendment to the Secretary of Commerce for implementation. [The motion carried on page 112.](#)

PAGE 112: Motion to allow staff to make editorial, non-substantive changes to the buoy gear generic amendment. [The motion carried on page 112.](#)

PAGE 114: Motion to deem the codified text presented by staff as necessary and appropriate for implementing the buoy gear generic amendment. Any changes will be reviewed by the council chair. The council chair is authorized to re-deem the codified text to reflect changes that are necessary and appropriate. [The motion carried on page 115.](#)

1 [PAGE 194](#): Motion to add Adyan Rios to the Outreach and Education
2 AP. [The motion carried on page 194](#).

3
4 [PAGE 195](#): Motion to add Charity Ledee, Jessica Peterson, and
5 Christy Berry to the St. Thomas/St. John DAP. [The motion carried](#)
6 [on page 197](#).

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1 **CARIBBEAN FISHERY MANAGEMENT COUNCIL**
2 **176TH REGULAR COUNCIL MEETING**
3 **Isla Verde, Puerto Rico**

4
5 DECEMBER 7-8, 2021
6

7 The Caribbean Fishery Management Council convened on Tuesday
8 morning, December 7, 2021, and was called to order at 9:00 o'clock
9 a.m. by Chairman Marcos Hanke.

10
11 **ADOPTION OF AGENDA**
12 **CONSIDERATION OF 174TH AND 175TH COUNCIL MEETING VERBATIM**
13 **TRANSCRIPTIONS**
14

15 **MARCOS HANKE:** On the agenda, we are informed that the agenda is
16 going to be modified, because we have to add a presentation from
17 1:00 to 2:00 pm. from Sam Rauch presenting on the 14008, Section
18 216(a), and the agenda modification is presented to all the
19 participants here, and there are some time changes, and I will
20 need a motion to adopt the agenda.

21
22 **TONY BLANCHARD:** So moved.

23
24 **MARCOS HANKE:** I need a second.

25
26 **VANESSA RAMIREZ:** Second.

27
28 **MARCOS HANKE:** Thank you, Vanessa. Vanessa seconds. Any comment
29 or any opposition? Hearing none, the agenda is approved, and we
30 also want the Consideration of the 174th and 175th Council Meeting
31 Verbatim Transcriptions. Is there a motion to adopt?
32

33 **CARLOS FARCHETTE:** So moved.

34
35 **MARCOS HANKE:** Thank you. Motion by Carlos Farchette and second
36 by Tony Blanchard. All in favor say aye. Thank you. The
37 transcription is adopted. Executive Director's Report, and,
38 before we get to the Executive Director's Report, I want to inform
39 you that Cindy-Grace McCaskey will be presenting a short -- She
40 will participate in Other Business to inform us about some
41 important work that she is doing in the Caribbean. Now the
42 Executive Director's Report with Miguel Rolon.

43
44 **EXECUTIVE DIRECTOR'S REPORT**
45

46 **MIGUEL ROLON:** Thank you, Mr. Chairman. I would like to take this
47 opportunity to -- We want to recognize two people and a group of
48 people. Christina, I need your help for the names. The group of

1 people that we want to recognize today are from NOAA, and I didn't
2 know that I was a customer, but -- This group of people, some of
3 you already know and have worked to complete the island-based FMPs,
4 to work hand-in-hand with Graciela and staff, and we wanted to
5 recognize them today, just to mention that they already received
6 a letter from NOAA Fisheries.

7
8 **CHRISTINA OLAN:** Clay Porch, Shannon Cass-Calay, Adyan Rios, Nancie
9 Cummings, Skyler Sagarese, Kevin McCarthy, Jocelyn D'Ambrosio,
10 Maria Lopez, Sarah Stephenson, William Arnold.

11
12 **MIGUEL ROLON:** A round of applause for these people, please,
13 (Applause) Of course, our boss here, Jack McGovern, and the
14 retiree, Bill Arnold. Bill Arnold is retired now, and he's working
15 in his own company, but, as you all know, he was instrumental in
16 putting all of this together and convincing Roy Crabtree to follow
17 his idea of the island-based FMPs.

18
19 Now I would like to call a person that is a nurse by academic
20 background, but she's been helping with fisheries in Puerto Rico
21 and the Virgin Islands, and that is Jeanette. We wanted to
22 recognize the work that this lady has done for all these years for
23 the U.S. Caribbean fisheries. She has worked with Sea Grant, and
24 all the time she has been a key to the development of our management
25 plans. She alone was able to put together a very effective
26 campaign for the lionfish, and, today, we want to extend to you
27 this plaque.

28
29 Not only that, but you will receive our coral reef in a bottle.
30 You have a coral reef here, and I hope that you will put it
31 someplace that you will see it all the time. She is also the
32 grandmother of a star. We have a series of videos promoting the
33 use of our fish, to help the local fishers, and also to help the
34 people at home, especially during the pandemic, to be able to
35 prepare recipes with things that they have on hand, and we have a
36 series of videos. Thanks very much.

37
38 We want to also recognize the council staff that has worked really
39 very hard, especially during the pandemic time, and, today, we
40 want to recognize Graciela Garcia-Moliner, and she had been with
41 us for quite a long time, and she has been my right hand.

42
43 (Part of Mr. Rolon's comments are not audible on the audio
44 recording.)

45
46 **MARCOS HANKE:** We're going to go to the next item on the agenda,
47 the five-year strategic plan. Michelle.

FIVE-YEAR STRATEGIC PLAN

MICHELLE DUVAL: Again, thank you all for the ability to be able to present in-person here today. I have what is hopefully the last presentation on the 2022 to 2026 strategic plan.

Just an overview of what I plan to present today, I'm going to quickly review the council's previous actions, and then I'm going to review the public comments that the council received, and then I will just quickly review the recommended changes, and then the action that we will be asking the council to take today is to approve the final 2022 to 2026 strategic plan. Then, after that, I will take just a few slides to review the draft 2022 implementation plan.

It's been a long road to get here, made even longer by COVID, but, back in March, the district advisory panels reviewed the draft island-specific strategies and objectives and provided initial feedback on those components. Then, in April, the council selected draft vision, mission, and goal statements and approved the island-specific objectives that were reviewed by the DAPs.

In June, the DAPs really dug into the strategies, the island-specific strategies, and provided final edits to those, and then, in July, the council reviewed and approved a draft of the strategic plan for public input, which occurred through most of August and the beginning of September, and so, again, today, what we're asking the council to do is to review the suggested edits, of which there are only three, and approve the final strategic plan.

We did not receive very much public comment. We collected comment through an online public comment form, in both Spanish and English, that was available from August 6 through September 3, and we received three comments. One included a recommended language change, and most of the rest of the comments were suggestions to enhance implementation of many of the strategies. Overall, the comments supported the strategic plan as written, and we did not receive any comments on the communication and outreach components.

On the vision, mission, and core values, we received one comment that stated these were not very inclusive and a second comment that supported all of them as written, and so two diametrically-opposed comments.

Under the management goal, one suggestion was to gather fisher input for collaborative research by gear and by region, using an electronic form, and another suggestion was to develop an educational campaign, using regional workshops, to gather fisher

1 input for stock assessments. With respect to ecosystem and
2 resource health, one of the comments supported the dialogue between
3 the council and Puerto Rico agencies on the impacts of non-fishing
4 activities on habitat, and it also suggested to compensate fishers
5 monetarily for their participation in ecosystem research and to
6 recognize their contributions, through authorship and
7 publications, as well as in education and outreach activities
8 throughout the islands.

9
10 Then there was one final comment recommending that sargassum
11 influxes be added to natural disasters in one of the Puerto Rico
12 objectives.

13
14 With respect to social, cultural, and economic issues, there was
15 a lot of support for this goal, indicating that it was essential
16 to increase confidence in management and compliance with
17 regulations by the commercial sector, and it contained multiple
18 suggestions that were very specific to Puerto Rico, including
19 consideration of fishing communities by gear type, as well as mode,
20 such as commercial, recreational, and for-hire, as well as
21 geography, to conduct a study on fish mislabeling to better target
22 education and outreach activities to stop this type of activity.

23
24 Another suggestion was to better understand underutilized local
25 markets, in order to strengthen food security through seafood and
26 local fish, and then, finally, to include university social
27 workers, as well as staff from the Department of Correction and
28 Rehabilitation, in efforts to promote recruitment of young fishers
29 into the fisheries.

30
31 Now I just want to talk about the recommended changes to the
32 strategic plan, and the first recommendation is really more in
33 regard to the organization of the plan, and that is to consolidate
34 objectives that are identical across all three districts and simply
35 maintain the island-specific strategies, and so, for example, for
36 the management goal, rather than have fifteen separate objectives,
37 five for each of the three island districts, we will consolidate
38 that into five objectives, because they are all identical for each
39 of the island districts, and instead just list the island-specific
40 strategies.

41
42 As you can see here on the screen, under the management goal, all
43 five objectives were identical across all three island districts.
44 Under ecosystem and resource health, there were three identical
45 objectives, one objective that is specific just to Puerto Rico,
46 two objectives specific to St. Thomas/St. John, and two objectives
47 specific to St. Croix.

1 For social, cultural, and economic issues, there are three
2 objectives that are identical across all three districts and then
3 one island-specific objective for each island district, for a total
4 of six objectives under this goal.

5
6 The second recommended changes are language changes, and so the
7 first is under the ecosystem and resource health goal, and that is
8 in response to one of the public comments that we received, and
9 that suggestion was to add sargassum blooms to the natural
10 disasters objective, which is Objective 9, and that was specific
11 to Puerto Rico, and so you can see on the screen, underlined, the
12 added language that has been recommended, and so Objective 9 would
13 read: Collaborate with management partners to address the impacts
14 of natural disasters, for example hurricanes, earthquakes, and
15 sargassum blooms, on ecosystem structure and function.

16
17 Then the second recommended change is under the social, cultural,
18 and economic issues goal, and that is simply to insert "and
19 dissemination" in Objective 14, and so this language was originally
20 added to this objective by the St. Croix District Advisory Panel,
21 and it was also adopted by the St. Thomas/St. John District
22 Advisory Panel, and it is my failing that I did not recommend that
23 the Puerto Rico District Advisory Panel also adopt this language,
24 and I believe the addition of "and dissemination" speaks to some
25 of the conversations that all of the DAPs had with respect to
26 ensuring that social and cultural information would be
27 communicated out to all stakeholders, and so that's the other
28 recommended language change.

29
30 That summarizes the public feedback that the council received on
31 the draft strategic plan, the very minor changes that have been
32 recommended, and so I am now happy to take any questions, but I'm
33 asking that the council take action and approve the 2022 to 2026
34 strategic plan, with these recommended changes, and I will just
35 remind everybody that a Spanish and English version of the
36 strategic plan was included in the briefing book materials. Thank
37 you, Mr. Chairman.

38
39 **MARCOS HANKE:** Thank you very much.

40
41 (There is a break in the audio recording.)

42
43 **VANESSA RAMIREZ:** Second.

44
45 **MARCOS HANKE:** The motion is being presented on the screen. **Carlos**
46 **presented the motion to accept the five-year strategic plan, as**
47 **presented by Michelle Duval.** It was seconded by Vanessa Ramirez.
48 Now we are open for discussion. Anybody? Richard and then Tony

1 Blanchard.
2
3 **RICHARD APPELDOORN:** (Dr. Appeldoorn's comment is not audible on
4 the recording.)
5
6 **MARCOS HANKE:** Thank you, Richard. Tony.
7
8 **TONY BLANCHARD:** I don't think we should move forward with this,
9 to be honest with you. I think what we are missing here is the
10 public comment, because the numbers jump out to me as to the lack
11 of public comment. Seeing the atmosphere that we are in right
12 now, where we have to go virtually and we don't have any in-person
13 meetings, basically, and you want the message to get out to the
14 public, and the only way you're going to really get this message
15 out to the public is by having an in-person meeting that the
16 strategic plan can be explained and have the public comment on it.
17
18 I think, by trying to do this virtually, by trying to have
19 statements written in, that's not going to work, because we are
20 limiting people, to a certain degree, and not that they don't have
21 access, but they're just not into all of that, and so, to really
22 get the public comment, in my opinion, you need to have an in-
23 person meeting, and the strategic plan needs to be explained, to
24 the people that are going to be involved in it, or for people to
25 understand, before we can truly say that we have public comment,
26 and so I don't feel comfortable with moving forward with this.
27
28 **MARCOS HANKE:** Thank you, Tony. Damaris.
29
30 **DAMARIS DELGADO:** (Ms. Delgado's comment is not audible on the
31 recording.)
32
33 **MARCOS HANKE:** Thank you, Damaris. Anybody else, besides Tony
34 again? Julian.
35
36 **JULIAN MAGRAS:** (Mr. Magras's comment is not audible on the
37 recording.)
38
39 **TONY BLANCHARD:** Do the people that know anything about fisheries
40 know about this, in your opinion? Probably very little, right?
41
42 **JULIAN MAGRAS:** (Mr. Magras's comment is not audible on the
43 recording.)
44
45 **TONY BLANCHARD:** A follow-up?
46
47 **MARCOS HANKE:** I want to give the floor to Nelson and then to
48 Miguel Rolon and then maybe some clarification points from

1 Michelle.
2
3 **NELSON CRESPO:** (Mr. Crespo's comment is not audible on the
4 recording.)
5
6 **MARCOS HANKE:** Miguel, did you want to make any comment?
7
8 **MIGUEL ROLON:** No.
9
10 **MARCOS HANKE:** Then we have Damaris and Tony, and then we will go
11 for a vote. Did you want to say something?
12
13 **DAMARIS DELGADO:** (Ms. Delgado's comment is not audible on the
14 recording.)
15
16 **MARCOS HANKE:** It's to approve the -- The motion is on the screen
17 to move and accept the five-year strategic plan as presented by
18 Michelle Duval. That's the motion.
19
20 **DAMARIS DELGADO:** Can we amend the motion to consider Tony's
21 comments?
22
23 **MARCOS HANKE:** We have to address the motion first, and, as part
24 of the discussion, it's already addressing what you are requesting,
25 in terms of an amendment, and I think it's better to discuss and
26 go for a vote. Tony.
27
28 **TONY BLANCHARD:** I am going to try and put it as simple as I can
29 possibly put it, how I see it. I think we have a tendency to
30 believe that everybody knows what is going on, and that's a
31 misconception, because we are all involved in basically the
32 management process, or, in some way, we are tied into it, but the
33 majority of people have no idea what's going on behind the scenes,
34 and this is what I call this, is behind the scenes.
35
36 If we truly want to -- Say we want to manage, and we want the
37 public's input, we can't vote on this and say that the public
38 really had any input in it, and that's my opinion. It's like
39 asking me what do you think about this cup, and, well, I think
40 this cup is half empty, and Marcos might have a different point of
41 view, saying this cup is half full.
42
43 What I'm saying is that we need to step out of the box and see,
44 from a layman's point of view, that there is things that are
45 happening that we think people have knowledge to or know that is
46 actually going on, and they don't have slightest clue what's
47 happening until it's dropped on their front step, and, well, guess
48 what? This is what the story is, but I didn't know anything about

1 it.
2
3 The idea of us thinking that the information is actually getting
4 out and the information is getting out is two different
5 perspectives, and it all depends on who you want to ask or what
6 sector of people you want to ask, for lack of a better description.
7 The scientists, yes, the information is getting out. The laymen,
8 no, the information is not getting out.
9
10 **MARCOS HANKE:** Jack McGovern.
11
12 **JACK MCGOVERN:** (Dr. McGovern's comment is not audible on the
13 recording.)
14
15 **MARCOS HANKE:** Miguel.
16
17 **MIGUEL ROLON:** (Mr. Rolon's comment is not audible on the
18 recording.)
19
20 **MARCOS HANKE:** Thank you, Miguel. Jack and then Michelle Duval
21 and Tony.
22
23 **JACK MCGOVERN:** (Dr. McGovern's comment is not audible on the
24 recording.)
25
26 **MARCOS HANKE:** Also, we have Vanessa after Tony. Michelle.
27
28 **MICHELLE DUVAL:** (Dr. Duval's comment is not audible on the
29 recording.)
30
31 **MIGUEL ROLON:** I would like to take your offer to put up the slide.
32 Once this plan is implemented, we have to go to the public and
33 explain, the same way that we are going to explain the island-
34 based FMPs, and have meetings with fishers in St. Thomas and
35 fishermen in St. Croix and fishermen in Puerto Rico, to make sure
36 everybody understands where are we and where are in the process,
37 and so that slide that you have helps explain to the group what is
38 intended once you take final approval.
39
40 **MICHELLE DUVAL:** Graciela, is it possible to go back to my
41 presentation and put up those two slides? (The rest of Dr. Duval's
42 comment is not audible on the recording.)
43
44 **MARCOS HANKE:** Miguel and then Vanessa.
45
46 **MIGUEL ROLON:** Just to inform the group, this proposed mechanism
47 has been discussed with NOAA legal counsel to make sure that we
48 follow the appropriate laws and regulations. In fact, remember

1 that any activity in a panel has to be open to the public. The
2 activities of the advisory panels and the committee of the council
3 would be in the open, and, actually, it would be either the day
4 before the council meeting or the morning of the council meeting,
5 and it's up to you to decide.

6
7 The only one that is internal is the one that discusses the budget
8 and the monies and the personnel between the Regional Office and
9 the Southeast Fisheries Science Center, and that's why it's called
10 an IPT, similar to the IPT that you have now for the management
11 plans, and so we discussed it with Jocelyn D'Ambrosio, and there
12 is a possible way to do this, and to do the implementation of the
13 plan without any conflict with MSA or applicable laws, like FACA.

14
15 **MARCOS HANKE:** Vanessa Ramirez.

16
17 **VANESSA RAMIREZ:** Thank you, Mr. Chair. I just wanted to make my
18 comment about the plan, and I suggest, as I seconded this motion,
19 because we already know we have a lot of time with this
20 implementation with the plan and the draft, and I can certify that
21 the commercial fishermen in Puerto Rico received their mail with
22 the hard copy in Spanish, and so they have the time to read it and
23 make their comments, if they haven't already done.

24
25 We know that we usually want more participation, but the thing is
26 that, in the virtual meetings, it's very hard for them to
27 participate, and so that is where our jobs start and making them
28 understand these kind of plans and also representing as we should
29 do in these meetings. Tony, I know that we are different islands,
30 but, practically, at least in Puerto Rico, I know that the
31 commercial fishermen, the associations and the villages, received
32 their copy, and received their copy in Spanish, and they had time
33 enough to participate. I will ask to the council members to
34 continue and to please move with this motion. Thanks.

35
36 **MARCOS HANKE:** Thank you, Vanessa, and I have Tony, very briefly,
37 and I want to hear from all the council members to go for a vote.
38 Go ahead, Tony.

39
40 **TONY BLANCHARD:** Okay, and this is going to be my last statement.
41 I understand timelines, and I think sometimes we allow timelines
42 to dictate, because we are under pressure to meet them and come to
43 a decision, and I'm not saying that that's what is happening here,
44 but, obviously, the public comment is very important to this
45 process, and, me personally, I don't feel that it was met, and I
46 will draw you a perfect example.

47
48 I am not saying that you're not putting the effort forward, but

1 what I am telling you is the effort that you are doing only comes
2 to a certain sector of people, and I am the Vice Chair of the
3 council, and I don't even get onto NOAA's website. I don't get
4 onto the CFMC's website. I don't do social media.
5

6 I am the outreach -- So I think I have made my point of when we
7 try to capture the public using those platforms, and so to say, in
8 my opinion, that we haven't met, legally, the criteria for meeting
9 the public comment -- Maybe we meet it legally, but, if you ask
10 me, if we truly meet it, I would say no.
11

12 **MARCOS HANKE:** We are going to vote, but, before the vote, I want
13 to say my point as a council member. I think that we did everything
14 we can to address this issue, and the process is not a closed
15 process, like Michelle said, and there is still parts of the
16 process in the future that is a lot of participation, and I think
17 that we are overseeing a fact here, and that is that the DAP and
18 the council members and all participants have a mission and an
19 obligation to inform their stakeholders and their constituents,
20 and that's why you are part of the DAP. Addressing that and saying
21 that, we are ready for the vote. We're going to start with Carlos.
22

23 **CARLOS FARCHETTE:** Yes.
24

25 **JOHN-PIERRE ORIOL:** Yes.
26

27 **DAMARIS DELGADO:** I am unsure how to express my vote, but I am not
28 completely in agreement, and I would like to support Tony's
29 opposition, and so I would say no or abstention.
30

31 **MARCOS HANKE:** Abstention. Okay. Tony.
32

33 **TONY BLANCHARD:** No.
34

35 **MARCOS HANKE:** Yes.
36

37 **JACK MCGOVERN:** Yes.
38

39 **MARCOS HANKE:** Vanessa.
40

41 **VANESSA RAMIREZ:** Yes.
42

43 **MARCOS HANKE:** Graciela, can you read, for the record, the list of
44 the vote results.
45

46 **GRACIELA GARCIA-MOLINER:** Five yes and one no and one abstention.
47

48 **MARCOS HANKE:** **The motion carries.** Thank you very much. We need

1 fifteen minutes, and I am really sorry about the technical problems
2 that we are having, and we're going to try to fix it in the next
3 fifteen minutes. We're going to have a fifteen-minute break.

4
5 (Whereupon, a brief recess was taken.)
6

7 **MARCOS HANKE:** Good morning, everyone. We have tried to fix the
8 problem, and I hope that everybody is listening now, and we have
9 Carlos Farchette.

10
11 **CARLOS FARCHETTE:** I've got to start over. **Move to approve the**
12 **process to implement the five-year strategic plan by creating a**
13 **five-year strategic plan interdisciplinary planning team and a**
14 **council advisory panel composed of representatives from the**
15 **governments of Puerto Rico and the U.S. Virgin Islands and the**
16 **chairs of the three District Advisory Panels and the Science and**
17 **Statistical Committee and the Ecosystem-Based Fishery Management**
18 **TAP.**

19
20 **MARCOS HANKE:** Any second? Thank you, Damaris. Is there
21 discussion? Jack.

22
23 **JACK MCGOVERN:** (Dr. McGovern's comment is not audible on the
24 recording.)

25
26 **MIGUEL ROLON:** Jack is right, and the motion is to create this
27 group because, when we discussed it with Jocelyn, we had the
28 Outreach and Education Advisory Panel, and they will filter
29 whatever we have in the strategic plan, and, on that panel, we
30 have fisheries and we have people who are technically oriented,
31 and they know about outreach and education.

32
33 One of the things, for example, is they can tell us what is the
34 best way to approach the fishing community to explain the strategic
35 plan and the components of the strategic plan. The SSC and the
36 TAP, they will continue working with what they are doing, and they
37 will incorporate the needs of the SSC and the needs of the TAP,
38 and the same with the three chairs.

39
40 We will want to hear from them what is it that they would like to
41 do, and this group will sort of filter, for the council, and
42 remember this AP meets with the public, and so let's say, for
43 example, that Julian has, on the strategic plan, something that
44 Nelson believes should be done next year, and then the group
45 decides that, okay, according to the information we have, yes, we
46 can do that next year, and the Center is willing to participate,
47 and the Regional Office will participate, because the five-year
48 strategic plan IPT said so.

1
2 Then you come to the council with that set of recommendations, and
3 then the council decides which one. In some cases, for example,
4 the five-year strategic plan will tell us that we are doing this
5 species this year, and let's move it forward for the following
6 year, because the monies and we have it. It's similar to the SEDAR
7 process.

8
9 Then the council advisory panel can say, well, who would like to
10 give priority to these two recommendations, rather than the third
11 one, and those priorities will be based on what the DAP chairs
12 will say and the chair of the committee, of the SSC, and the TAP,
13 and that is more or less what we have, but you're right that, when
14 we have this -- The motion here does not whatsoever preclude the
15 SSC and the others, all the members of the panel, all the panels
16 that we have here and the committees, to discuss the issues that
17 are important to the implementation of the strategic plan. That's
18 a good point.

19
20 **MARCOS HANKE:** We have to vote on the motion. We have the motion
21 made by Carlos Farchette and seconded by Damaris Delgado. We'll
22 start the vote with Carlos.

23
24 **CARLOS FARCHETTE:** Yes.

25
26 **DAMARIS DELGADO:** Yes.

27
28 **TONY BLANCHARD:** Yes.

29
30 **MARCOS HANKE:** Yes.

31
32 **VANESSA RAMIREZ:** Yes.

33
34 **MARCOS HANKE:** Okay. **We have one abstention and six yes. The**
35 **motion carries.** I just saw a turn to speak by Jocelyn.

36
37 **JOCELYN D'AMBROSIO:** Thank you, Marcos. I was just going to offer
38 a comment before the vote, but, since the vote has occurred, I
39 have no comment. Thank you.

40
41 **MARCOS HANKE:** Thank you, Jocelyn.

42
43 **GRACIELA GARCIA-MOLINER:** Could you hear her?

44
45 **MIGUEL ROLON:** For the record, Jocelyn said that she had a comment
46 before the vote, but, now that you voted, it's not necessary at
47 this time.

1 **MARCOS HANKE:** Okay. The next item on the agenda is the DAP
2 reports. We have Julian Magras.

3
4 **DAP REPORTS ON DAP MEETINGS ON COMPATIBLE REGULATIONS**
5 **ST. THOMAS/ST. JOHN**
6

7 **JULIAN MAGRAS:** Back in August of 2021, the Fishery Advisory
8 Committee for the St. Thomas/St. John District had a meeting, and
9 we had that meeting to discuss compatible regulations, and I
10 attended that meeting as a guest, and, after that meeting, I
11 reached out to Miguel Rolon, and I requested that the District
12 Advisory Panel for St. Thomas/St. John needs to have a meeting
13 also to discuss the compatible regulations.

14
15 That meeting took place on October 26, 2021, and all of our members
16 were present at that meeting, those who were still onboard, and we
17 do have some vacancies, but we'll discuss that at a later point,
18 and, during that meeting, we had some presenters, and we had
19 Graciela Moliner, and we had Madeleine Guyant from the Division of
20 Fish and Wildlife, and both of those individuals presented both
21 the federal regulations and the territorial regulations.

22
23 We had some very, very good discussions on the regulations, but we
24 decided that there would be no final decision and that the process
25 needs to be vetted and that we need to take our time and make sure
26 that the process is done correctly, but we did get through all of
27 the items, but, before I get to that presentation that Graciela
28 and the team has put together for me, I want to make a couple of
29 points.

30
31 I think one of the first items that we had some discussion on is
32 there was some confusion on how to -- the landings, and, because
33 the landings -- The council manages the EEZ, and the territory
34 manages the territorial waters, but there is one annual catch
35 limit, and there was -- The fishers who were there, and the
36 individuals from the committee, were trying to understand, well,
37 how was the ACL set, and was it set just off of the territorial or
38 was it just set off of the federal waters, and we were able to get
39 some clarification on that from Maria Lopez and the team that was
40 there, which the individuals felt a little bit better understanding
41 of the process.

42
43 Then there was some major concerns with compatible regulations, as
44 it pertains to there is no recreational data in place, and I think,
45 in order for us to have compatible regulations, we need to have a
46 recreational license. Everything I'm saying here comes from the
47 group as a whole, and there needs to be a recreational license in
48 place, in order for us to start collecting that information, so we

1 can see what the recreational guys are harvesting, and looking at
2 that data is very, very important, and it's going to be tied to
3 the commercial compatible regulations also, and so that was a very
4 important issue there.

5
6 There was a meeting that took place in November of 2020, which I
7 believe took place with -- It was called together by Carlos
8 Farchette and other members from the Division of Fish and Wildlife
9 and Maria Lopez and some of their teams, where they started
10 preliminary discussions on the island-based fishery management
11 plans as it pertains to St. Croix. There were no St. Thomas
12 representatives there at that meeting, and so the discussions that
13 were started on the compatible regulations at that meeting actually
14 were for St. Croix.

15
16 We are looking forward to having the same meeting with all the
17 regulatory bodies also, for us to have these discussions on how we
18 move forward.

19
20 Then another issue that a lot of the members had was we're looking
21 at the regulations, but we are not seeing the language that comes
22 along with the regulations, and so, for example, you have, on the
23 federal side, 50 CFR 622.10, and then, on the VI side, you have
24 the VI Chapter 12 316-14. On the VI side, it goes all the way
25 down to all of these different appendices, and so one of the
26 requests from the committee was, before even moving forward with
27 any of these compatibilities, is we need to see that language.

28
29 We need to see the language from both the federal and local side,
30 so we can understand what we are doing when it comes to doing if
31 any compatibility at all, and so, with that said, all the members
32 agreed to stall final decisions until the code languages have been
33 provided to them and we were able to have some discussions, and it
34 was made clear at the meeting, by Miguel, that this is just the
35 beginning process, and it's going to take a long time for us to
36 sit down and really put this together and make sure that it's put
37 together with everyone's input and it's done correctly.

38
39 It's not that you have one meeting and it's going to happen and
40 we're moving forward, and this is going to be similar to the five-
41 year strategic plan, where we spent three years, but I think we
42 spent three years putting something together that was done
43 correctly, and that's the same approach. When it comes to
44 compatibility, I think we need to have the same approach, to see
45 which, and if any, of the groups we can actually have compatibility
46 on. We know it's not going to work completely across-the-board,
47 but it can work for several different groups.

1 Also, it was mentioned, while discussing the compatibility, is the
2 group would like to see an independent fisheries survey on the
3 queen conch, and so what happened there was, because a few years
4 back, when we set the ACLs, we set a zero limit in the federal
5 waters of St. Thomas/St. John, and it's a virgin stock in St.
6 Thomas/St. John waters, because it's not fished, and some of the
7 members, and some of the fishers, would like to see this revisited,
8 and they would like to get a study done, and, similar to like St.
9 Croix has a 50,000 pound, which consists of both federal and local,
10 the guys would like to see if, after doing the independent
11 assessment, it would be possible for revisiting how that ACL was
12 set.

13
14 I am going to refer you guys, and you can see these are some of
15 the slides that were put together, and these were stuff that was
16 discussed at length, and so, as you see, Nassau grouper is a closed
17 fishery, and it needs assessment, and so then we have the queen
18 conch, which I just talked about, and we want that to be revisited.

19
20 The yellowtail snapper, the preliminary discussions, to adopt, in
21 territorial waters, the minimum size of twelve inches total length,
22 as written in federal regulations. Then, as it pertains to the
23 seasonal closures, seasonal closures have been in place, and
24 rebuilding a stock is fifteen years, and the guys would like to
25 see some kind of assessments done, and these closures -- Are they
26 really working for what it was intended to, and it clearly states
27 that, when we did the SFA, in that document, the Sustainable
28 Fisheries Act, it clearly states where that in not all cases that
29 you close a fishery that it actually helps a fishery to recover.

30
31 Sometimes bycatch can cause you to collapse that fishery, by not
32 being able to harvest from that fishery, but, not understanding
33 the whole fishery, you don't know how, and so we would like to see
34 assessments done on all the different seasonal closures, and they
35 are already compatible seasonal closures in the St. Thomas/St.
36 John district.

37
38 Here it shows all the compatibility, and I won't read all of them
39 out, because we all have seen this, and so I think this one here
40 talks about the bag limits, and, right now, I think what we are
41 looking at is we would like to see some kind of compatibility of
42 the EEZ and territorial waters for recreational bag limits, and so
43 the numbers are listed there.

44
45 We can always go back and tweak, and then, as we have further
46 discussions, but, right now, in the federal waters, there are bag
47 limits in place, and we would like to see compatibility across-
48 the-board with bag limits. This is also another part of the

1 recreational bag limits.

2
3 Federal regulations and the adoption of the fish traps, we only
4 use the two-inch in the St. Thomas/St. John district, and we
5 request the language to retain berried lobsters, and the
6 recreational guys should not be allowed to fish and lobster traps
7 in the EEZ and territorial waters. Now, I know there are no rules
8 in the federal waters right now as it pertains to traps, but we
9 would like to open up some kind of discussion as it pertains to
10 traps in the federal waters.

11
12 We're talking about doing -- If the council could entertain looking
13 into a permit system, which would help us to control the fishing
14 in the EEZ, and the reason we're looking into that is, right now,
15 I'm going to get in, very soon, to the lifting of the moratorium.
16 Even though the lifting of the moratorium is a territorial issue,
17 it also affects the federal waters, and so I'm going to get into
18 that in a few minutes and have a little further discussion on that.

19
20 Here it is, and we're talking about the fishing license and federal
21 permits, and so went into the moratorium, and so, when we get into
22 the moratorium, the fishers had a lot of concerns on the lifting
23 of the moratorium.

24
25 Now, we are not against the lifting of the moratorium. What we
26 would like to see is the -- Well, what we would have liked to have
27 seen happen is the moratorium should have been lifted in a way
28 where all the studies were done prior to lifting, and so, from
29 what was provided to us, none of these studies were done before
30 the lifting of the moratorium.

31
32 What was done is we looked at the vacancies and the quantity of
33 fishers that we had, but the ACLs that were set were set on the
34 present -- For the St. Thomas/St. John district, they were set off
35 of 109 fishers, where approximately forty-three, or not much more
36 than, forty-three fishers were the main contributors to those
37 numbers for the ACLs.

38
39 What we are requesting, from the district advisory panel, is if
40 the council can ask the SSC to take a look at our landings between
41 the years of 2015 and the year 2019, and if the year 2020 is
42 available, and look at where the annual catch limits are sitting
43 right now. Look at the areas of how many fishers contributed to
44 those landings, and look at which fisheries have been targeted the
45 most and which fisheries we can maybe take an increase in fishing
46 activity.

47
48 A perfect example is the deepwater snapper. Our annual catch limit

1 for the deepwater snapper is set at 500 pounds, and that's an
2 issue. If you're now opening up the fishery, to where we are
3 saying it's going to be opened up more to the lion fishery, you
4 will overrun that ACL within a week.

5
6 There are some fishers who are interested in doing that, if they
7 obtain a new license, and there are also some fishers who are
8 looking to go into that fishery who are presently commercial
9 fishing, and we would need to know how would we adjust that annual
10 catch limit with guidance from the SSC, if possible, and the
11 council, and how can we adjust that to a virgin fishery, and we
12 all know the fish are there, but they just haven't been fished.
13 You can look at the landings over a long period of time.

14
15 Then another area that we have some grave concerns is our wahoo
16 and dolphin fishery, and our annual catch limits that were set
17 were set very low, and we were given a three-year time period to
18 collect as much data as possible, to see what we're doing in that
19 fishery and if we can go back and reset that annual catch limit.
20 Now, I think we are at that three years right now, and these
21 licenses, if given, will go to a lot of charter boats who already
22 harvest the dolphin and wahoo recreationally, and I think this is
23 going to drive that fishery to be shut down within the first six
24 months.

25
26 I am asking the council for some help and seeing if we can have
27 the SSC and its team to look at our numbers and, if they can
28 provide us with some feedback, that would be great, and, for the
29 Division of Fish and Wildlife, I know you all have been collecting
30 data on the recreational harvest for the dolphin and wahoo, and,
31 if we could see those numbers, and share those numbers, and let's
32 see what has been harvested in the last three years, and, if we
33 can see the commercial side of it from the Southeast Fisheries
34 Science Center, that would be great. This is information that the
35 District Advisory Panel is requesting.

36
37 I know it's a lot to take in, but it's the beginning process, and,
38 you know, I wanted to say thank you to everyone who made this
39 meeting possible, both on the federal side and on the local side,
40 and from NOAA and all its team members who were present, even to
41 legal counsel, and everybody was there, and, you know, my committee
42 looks forward to us continuing dialogue on moving forward with
43 discussing of the compatibility regulations. Thank you very much,
44 and I am open to questions if anyone has any.

45
46 **MARCOS HANKE:** Thank you, Julian. We're going to have a question
47 from Kevin, and then we're going to go to Nelson after, because we
48 are very short on time to meet the lunch time. Kevin.

1
2 **KEVIN MCCARTHY:** Julian, I think that a lot of the questions you've
3 got are going to be addressed in a presentation I have this
4 afternoon, I hope. If not, we'll -- I won't get into that right
5 now, for time's sake, but my question though is this three-year
6 data collection program that you're talking about, and what was
7 that exactly? I'm not familiar with that, and so what was that?

8
9 **JULIAN MAGRAS:** What happened was, when we were discussing setting
10 the ACLs, and we were discussing the wahoo and dolphin, if you
11 recall, there was a big discussion in the room at the SSC meeting,
12 and we asked to give three years reprieve, for us to collect as
13 much data as possible from the recreational side on the dolphin.

14
15 At that time, it was Director Ruth Gomez present, and she put
16 together a -- She put together a form to start to collect the data,
17 and then, with the transition of the administration, it was
18 continued, because, at the DAP meeting, we asked Sennai Habtes if
19 that program was still ongoing, and he said yes, and so we
20 requested to see that data, because we need to see that data.

21
22 We need to see it both from the commercial side and the
23 recreational side, because we don't want the both of them to be
24 combined and what happens is automatically you shut your commercial
25 guys down, because you had no recreational data on the dolphin and
26 wahoo, just like the rest of the fishery, and we wanted to collect
27 that information, to see if we could even have a preliminary number
28 to set quota for the recreational guys different than the
29 commercial guys.

30
31 **KEVIN MCCARTHY:** Okay. Thanks. I mean, if you've never collected
32 data from the rec side, it won't matter what they catch, and you
33 will only be opening and closing the fishery based on the
34 information you have, and it will only be, at this point, the
35 commercial, except now there is this, I guess, voluntary program,
36 and so the fact that they're -- If you don't have information from
37 them, you can't shut down their fishery based upon what they're
38 catching, because you don't know what they're catching, right, but
39 thanks for that clarification.

40
41 **JULIAN MAGRAS:** Just to touch -- We want to make sure and --
42 Because we changed the way data was collected, and we created all
43 of these new catch report forms, to see if, at all, it made a
44 difference, and we haven't seen any of the numbers, and so we don't
45 know, since we set the new annual catch limits, where we're at and
46 what has the new information that we put forward with the
47 identified species for each island-based platform, because we all
48 had different species, to see where we're at.

1
2 Right now, it would be nice if we can see where we're at, and
3 hopefully later on we can have an idea, and so it would be nice to
4 see where we're at, so we can know what we need to do, or what we
5 need to request from you guys, and also to pass that information
6 along to our fishers.

7
8 **MARCOS HANKE:** Thank you, Julian. We're going to start with
9 Nelson.

10
11 **PUERTO RICO**
12

13 **NELSON CRESPO:** Good morning, everyone. On October 27, the Puerto
14 Rico District Advisory Panel met to revise our regulations in place
15 and to discuss new species under management. Although we did not
16 have the participation of all the members of the panel, we were
17 able to get some suggestions that we are going to present to you,
18 and I really want to thank Miguel and Graciela and Maria for the
19 guidance, and especially to Vanessa, because her comments and
20 suggestions were a help in getting our work done.

21
22 For the queen conch fishery, we request to the council to reassess
23 the queen conch closure in the EEZ and evaluate the possibility of
24 reopening the EEZ and have them reevaluate the seasonal closure.
25 In my opinion, this fishery should be open in the EEZ for a three-
26 month season, for around three to five years, to see how this
27 works.

28
29 We have a lot of comments from divers that used to dive in the EEZ
30 for conch, and they saw a big amount of conch that won't be able
31 to catch, and this is an opportunity to reduce the pressure in
32 state waters for this fishery.

33
34 We also recommend to the local government to maintain the
35 administrative order in place that allows us to bring the conch
36 without a shell to shore until scientific evaluation is done and
37 decide what to do with the shell, and this is only for security
38 reasons, and, after this, we recommend modification, if needed, in
39 our jurisdiction.

40
41 For the spiny lobster, we recommend to establish a bag limit for
42 the recreational sector in state waters, and, also, regulate the
43 use -- We recommend to regulate the use of trammel nets in the
44 state waters for the lobster fishery, due to high bycatch and high
45 mortality of lobster. We recommend to regulate the soak time, the
46 number of nets that can use the mesh size, et cetera. Everything
47 concerned with trammel nets has to be regulated.

1 The spiny lobster fishery is very healthy, but, at the same time,
2 it's endangered, because we have an extremely high bycatch with
3 the use of trammel nets. In my opinion, it's time to address this
4 matter, because a high number of small lobster, and in the market
5 with the use of this gear among other dangerous -- I have been
6 saying this for a long time and I think it's time to do something
7 about this.

8
9 For the fish species regulated by size, in order to have
10 consistency on enforcement, we recommend to this council to study
11 the possibility to adopt size regulations in the EEZ for white
12 grunt and king and cero mackerels, as established in the Puerto
13 Rico regulations.

14
15 Regarding the recreational bag limit in the EEZ, we recommend the
16 adoption of a snapper, grouper, and parrotfish combined
17 recreational bag limit in state waters. Puerto Rico and the
18 federal government should do compatible regulations, as much as
19 possible, in order to more easy the enforcement and the protection
20 of these species. For the recreational sector, snapper -- In the
21 market when they are targeted. Parrotfish, we know that it's an
22 important species that has to be protected for the benefit of our
23 habitats.

24
25 For the mahi, wahoo, and mackerel recreational bag limit, we
26 recommend to review the bag limit applied in the state waters and
27 maybe consider to apply a five and fifteen bag limit for these
28 species combined. Also, we recommend compatibility of regulations
29 after a detailed assessment of five and fifteen for dorado.

30
31 Regarding seasons closures, for the Grouper Unit 4, we recommend
32 more studies to evaluate a closure for this unit, and, for the
33 Grouper Unit 6, we recommend to leave this seasonal closure as-
34 is. Trying to extend the red hind closure for fifty more days is
35 going to bring a negative impact to the fishermen's economy during
36 the days that we celebrate the Quaresma, and that is forty days
37 ending with Easter Week, and that is when these fish have more
38 demand, and it would also bring distrust in the management plan
39 and would encourage illegal fishing.

40
41 Honestly, the red hind would have more pressure during these forty
42 days. After that, that fishery, they are still catching them
43 around the island, but they don't have that much pressure. I call
44 that fishery a seasonal catch fish.

45
46 For the Snapper Unit 1, we also recommend to keep the closure as-
47 is. For Snapper Unit 4 and 5, this closure is working out, and we
48 recommend to keep it as-is. Also, we recommend more studies for

1 those units.

2
3 Regarding the fishing gear, we recommend to include regulations on
4 bow and arrow for both EEZ and Puerto Rico waters, and we have
5 some reports from fishermen that they saw, at Mona Island, the
6 hunters, where they are going to hunt on the island, that they use
7 a bow and arrow for fishing from the shore, and that's going to
8 cause damage to the corals and the habitats.

9
10 Regarding the nets, we recommend to conduct a revision of this
11 fishing gear and their impact, especially for spiny lobster. We
12 request to evaluate the use of trammel nets in state waters, and,
13 also, we recommend to consider permits for the use of trammel nets
14 and request to establish a maximum number of nets fished. For
15 example, no more than three nets per fisher in a twelve-hour
16 period. Also, establish a limited soak time for nets, and, again,
17 the trammel net is a gear this is very dangerous, and it not only
18 causes damage to the habitat, but it also can affect the whole
19 ecosystem.

20
21 A high number of dead fish have to be discarded every time you use
22 it, due to its composition, and I have been saying for a long time
23 this, every time I have a chance. The high number of small lobster
24 that are in the market, with ratio of eight out of ten that are
25 captured, and, in my opinion, it's time for the local government
26 to step up to the plate and take action immediately to address the
27 danger of this fishing gear for the good of our fishing resources.

28
29 Regarding the trammel net, if you let me, Mr. Chair, I want to
30 read a letter that a fisherman that we all know, Edwin Font, Pauco,
31 sent me a few days ago. It says -- I am going to read it in
32 Spanish.

33
34 (Whereupon, Mr. Font's letter was read and was not transcribed.)

35
36 **MARCOS HANKE:** Nelson, for the sake of time, that's going to take
37 too much time to read. Go ahead, Miguel.

38
39 **MIGUEL ROLON:** (Mr. Rolon's comment is not audible on the
40 recording.)

41
42 **MARCOS HANKE:** Thank you very much, Miguel. Thank you very much,
43 Nelson. Do you have anything else?

44
45 **NELSON CRESPO:** I have two more topics, but I have to add regarding
46 the nets that, in the past, we have a traps fishery for lobster in
47 the west coast of Puerto Rico. Since the fishermen started using
48 the trammel nets, that fishery -- We are now trying, with the Todd

1 Gedamke project, to try to bring that fishery back, but it's very
2 hard for us, and it's like to climb Everest on a bicycle, but we
3 are trying, and we do our best. Regarding the bycatch, the trammel
4 nets -- You can kill a 1,000-pound shark or a one-pound fish, and,
5 due to the fish trying to escape from the nets, they start the
6 decomposition really fast, and, when you pull the net out, you
7 have to discard all those fishes, because they are not good for
8 sale.

9
10 Regarding the traps, we recommend to discuss the use of plastic
11 components in traps and only for the escape panel. Evaluate how
12 traps that do not comply with regulations could become legal. We
13 need to regulate milk crates that are being used as fish traps.
14 In my opinion, these crates are productive if regulated by the
15 size, but we must be very careful when dealing with this matter,
16 because it's -- Everybody knows that all the supermarkets and all
17 the bakeries put all these crates in the back of the store, and
18 they are really easy to be stolen by anybody. We also suggest to
19 identify sustainable materials for traps, like wood crates, that
20 prove to be effective and cheap.

21
22 Regarding the area regulations, we recommend to discuss each
23 discrepancy by area for the local governments to adopt federal
24 regulations. We also recommend to the council to study
25 compatibility, taking into consideration the biology and the
26 socioeconomic factors and conduct a vessel inventory that fished
27 those areas with species targeted and the fishing gear used. It's
28 necessary to do this with an effective committee, where the federal
29 and local government, in conjunction with the fishermen and other
30 interested parties, get together for this purpose.

31
32 The last one is license permits, and we suggest for the federal to
33 adopt state regulations. There would be no need to have other
34 permits. Evaluate a license or permit that can be valid in both
35 jurisdictions. Highly migratory species outreach meetings with
36 fishers, the fishermen need help and support with the small boat
37 permit for the Caribbean. That's all I have, and, if you've got
38 any questions, I would be more than happy to answer them.

39
40 **MARCOS HANKE:** One question to Nelson from Kevin, and then we can
41 move on. Thank you.

42
43 **KEVIN MCCARTHY:** (Mr. McCarthy's comment is not audible on the
44 recording.)

45
46 **NELSON CRESPO:** In my experience, that is a seasonal gear, and the
47 guys use it -- I can guarantee you that that gear can catch, in
48 that period, more than the 75 or 80 percent of the lobster that

1 goes straight to the market, and that is not only because the
2 fishermen use one net. Only one fisherman can have five, six, ten
3 nets in the water, and the length can be from 100 fathoms to 400
4 fathoms, because I know fishermen who have those for 400 fathoms,
5 and the big problem is, when they throw the nets in the water, and
6 maybe the bad weather comes, that net stays in the water for maybe
7 one week or two weeks, and you cannot imagine how many are killed
8 in that gear, and, for me, I'm a fisherman.

9
10 I'm a commercial fisherman, and I want to catch fish, and I want
11 to make money, but I protect my resources, and I think -- If you
12 ask me, my personal -- Everybody knows my personal opinion, and,
13 if it was me, I would not allow anybody to use that gear anymore,
14 and that is a concern to you and to the local government to do
15 that.

16
17 **KEVIN MCCARTHY:** (Mr. McCarthy's comment is not audible on the
18 recording.)

19
20 **NELSON CRESPO:** Yes, and the thing is you throw it back to the
21 water, and that lobster is damaged, because it's hurt, because
22 taking it out from the nets and the pregnant that die when they're
23 tangled in the net, and I can guarantee you that it's a percentage
24 of 80. Eight out of ten lobster are small, and I guarantee you
25 that, and so we have to do something about it, and we can't keep
26 losing more time, because, in one moment, that fishery is going to
27 be in real danger.

28
29 **MARCOS HANKE:** Thank you, Nelson, and we have a very short
30 presentation from Carlos, and then we're going to break for lunch,
31 because we have to be back here at 1:00 for Sam Rauch's
32 presentation.

33
34 **MIGUEL ROLON:** You can do that after Sam Rauch's presentation.
35 You have to break now, and they are going to --

36
37 **MARCOS HANKE:** Okay. Carlos is going to bring the presentation
38 after lunch and Sam Rauch's presentation. See you guys back here
39 at 1:00.

40
41 (Whereupon, the meeting recessed for lunch on December 7, 2021.)

42
43 - - -

44
45 DECEMBER 7, 2021

46
47 TUESDAY AFTERNOON SESSION

The Caribbean Fishery Management Council reconvened on Tuesday afternoon, December 7, 2021, and was called to order by Chairman Marcos Hanke.

MARCOS HANKE: Welcome back, everyone. (Part of Mr. Hanke's comments are not audible on the recording.)

PRESENTATION ON EXECUTIVE ORDER 14008 SECTION 216(A)

SAMUEL RAUCH: I am going to go ahead, and I apologize, Mr. Chair, if I am interrupting, and so I'm going to go ahead and give this presentation, and then we can open it up for discussion, if that is all right with you, and, if not, please someone let me go. Are we good?

MARCOS HANKE: Excuse me, Sam. Can you hold on just for a second? We have low volume, and we're going to try to find out something.

SAMUEL RAUCH: I will wait until you let me know.

GRACIELA GARCIA-MOLINER: Sam, go ahead.

SAMUEL RAUCH: All right. Thank you, and please let -- Send me a text or something if the quality cuts out on my end. Thank you, and I am Sam Rauch, and I am the Deputy Assistant Administrator for Regulatory Programs at the National Marine Fisheries Service, the Deputy Director, and I am pleased to be with you here today to talk about the administration's report on Conserving and Restoring America the Beautiful.

I understand that we were trying to give you this presentation earlier, but we had a mix-up somewhere, and so we rescheduled, and I appreciate the flexibility that the council has provided to allow us to do this, a little bit later than we had originally wanted, but still to get the important input that the council may have and to share with you where we are.

The report was released in early May, and it complements NOAA's five decades of conserving natural, cultural, and historical resources with our nation's marine and Great Lakes environments and special places. In the report, the President calls on Americans to join together in pursuit of a goal of conserving at least 30 percent of our lands and waters by 2030, through an inclusive and locally-led effort. The report includes recommendations emphasizing the importance of ongoing dialogue, engagement, and collaboration for conserving and restoring America

1 the beautiful.

2
3 This is the Executive Order that created the process that we're in
4 now, and it was signed on January 27, 2021, and it direct the
5 Department of the Interior, or DOI, working with other agencies,
6 including commerce to produce a report to the National Climate
7 Taskforce, and that's the taskforce that is created separately in
8 this Executive Order, but it's an executive-level taskforce that
9 reports to the President, to recommend steps for conserving at
10 least 30 percent of U.S. lands and waters by 2030, and the 30
11 percent is not necessarily an endpoint, and it says at least 30
12 percent, and it is not necessarily numerically -- Although it is
13 the target, the target is more on achieving specific conservation
14 outcomes and the benefit they provide over the long-term, as
15 opposed to achieving the numerical standard itself.

16
17 Section 216(a)(i), which is highlighted here, directs NOAA and
18 other federal agencies to solicit input from state, local, tribal,
19 and territorial officials and agricultural officials and fishermen
20 and other key stakeholders in identifying strategies that will
21 encourage broad participation in the goal of conserving at least
22 30 percent of our land and water by 2030.

23
24 It also calls for guidelines for determining whether the lands and
25 waters qualify for conservation and mechanisms to measure progress
26 towards that goal, and I will talk about that more later.

27
28 With the issuance of the Executive Order, we've gathered input,
29 and we've had a number of broad listening sessions and outreach
30 sessions, before the report was issued, to a number of these
31 groups, including I talked to the CCC, and I had a number of
32 presentations with individual councils, to the extent that we could
33 arrange them, to get input on how to frame this overall effort,
34 and that helped inform the subsequent report.

35
36 The report, as I said, came out in May, and it was entitled
37 "Conserving and Restoring America the Beautiful", and it was the
38 first step in the process about building a strategy for achieving
39 the conservation goals, and it lists, at the outset, three
40 overarching conservation goals, and, when I said the 30 percent
41 wasn't as significant, the 30 percent is designed to achieve these
42 three overarching goals of combating key threats to the loss of
43 natural areas and natural resources, climate change, and
44 disparities in access the outdoors, and so you will see me refer
45 back to these overarching areas, because this is -- When you look
46 at conservation, and you look at what we're trying to achieve,
47 we're trying to achieve these three overarching topics of combating
48 the loss of natural areas and natural resources, dealing with

1 climate change, and dealing with disparities in access to the
2 outdoors.

3
4 It's a ten-year, locally-led and nationally-scaled campaign, and
5 it's not going to happen tomorrow, and it is a decade-long process,
6 and, most importantly for this group, it recognizes the need for
7 a continuum of approaches, and it intentionally uses the term
8 "conservation", as opposed to other terms, such as "protected
9 areas", because it acknowledges that the value of various
10 conservation actions, in addition to protected areas, including
11 areas that allow for sustainable mixed use, or areas that may need
12 to be restored, but we are -- Because we are currently still
13 seeking input on how to measure progress towards that 30 percent
14 goal, and what "conservation" really means, we did not, at the
15 outset, say that any specific conservation actions were either
16 included or excluded.

17
18 However, it did -- While it didn't say exactly what was
19 conservation, and that is an issue that we continue to need to
20 define, it did lay out eight core principles that we should be
21 looking at that are critical to the success of the areas, and these
22 are equally important in the report, and they reflect a broad
23 consensus of views and recommendations that we did during that
24 early outreach effort.

25
26 Some of these principles are that, no matter what we do, the
27 process needs to be collaborative and inclusive. It needs to avoid
28 being top-down and directive, and it should try to build on the
29 collaborative work that makes many of the conservation efforts
30 successful, and it needs to conserve for the benefit of all people,
31 of all Americans, and the benefits should be equitably distributed.
32 The value of a place should not be measured solely in biological
33 terms, but also by its capacity to provide benefits, such as access
34 to recreation and preparing for and restoring climate change and
35 impacts.

36
37 It needs to be supportive of locally-led efforts. As I indicated,
38 it shouldn't be top-down, but it should reflect that many of the
39 conservation benefits that we have secured so far are developed
40 locally, from the bottom-up, and we need to honor tribal
41 sovereignty, treaty rights, subsistence rights, and freedom of
42 religious practices, which also align with the President's overall
43 objectives. We need to recognize that conservation can be a job-
44 creation activity, and we should pursue approaches that create and
45 preserve jobs across the landscape. A lot of what the councils
46 do, when they create conservation areas, is designed to support
47 important commercial and recreational fisheries, which has a
48 direct linkage back to many important coastal jobs.

1
2 I know that the council takes that into account as they design
3 fishery management areas, and we should be mindful of the same
4 sort of processes and thoughts as we look at applying this
5 conservation mandate here. We need to honor private property and
6 voluntary stewardship efforts, recognizing that, particularly on
7 land, that much of the advancements in conservation are done by
8 private landowners that volunteer their lands for conservation,
9 and we need to be mindful of that and to take that into account
10 and to include that in the process.

11
12 We need to use science as a guide, but also include and recognize
13 that, as part of that, there is a role for indigenous and
14 traditional ecological knowledge to complement other sorts of
15 scientific endeavors, and important for the council is we need to
16 build on existing tools and strategies, and there is not an intent
17 to create a separate conservation mandate, but, to the extent that
18 we are working in conservation work, through things like the
19 Magnuson Act, or other sort of already existing structures, and
20 not just federal structures, but also state and local structures,
21 private land structures and other kinds of strategies that already
22 exist on the landscape.

23
24 The next step in this is -- As I've said, we've done the report,
25 and the next step is to work on a conservation atlas. The President
26 has set a goal of conservation of 30 percent of our land and
27 waters, but we don't know where we currently stand along that
28 objective. Are we at 30 percent, or are we over, or are we under,
29 and, if we're under, how far under are we, and what other
30 opportunities are there? There is a need to create a baseline
31 assessment about how much of our existing land and waters are
32 currently conserved, so that we can better design strategies to
33 achieve the President's overall objectives, if we have not already
34 done so.

35
36 We're going to create an American Conservation Stewardship Atlas,
37 provided based on an assessment of where we are, and it's going to
38 be developed by a federal interagency working group, with input
39 from the public, states, tribes, scientists, and a wide range of
40 stakeholders, and consider a range of contributions, including
41 voluntary conservation measures, conservation measures under the
42 Magnuson-Stevens Act, and other existing efforts by governments
43 and private landowners on conservation.

44
45 We do envision that there will be annual reports, and I expect the
46 first annual report to come before the end of the year, but there
47 will be one each year that will document the progress that we've
48 made. There will be an update on areas of collaboration identified

1 in the report, an update on land-cover changes, including the loss
2 of open space, and it will review the condition of fish and
3 wildlife habitats and populations. As I said, I expect the first
4 one to be coming in the next few weeks.

5
6 We mentioned the three overarching objectives, and then there's
7 the eight core principles that any conservation measure should
8 work its way -- That it should adopt. The report does find six
9 areas of initial focus. As I said, this is a decade-long
10 initiative, but, in the short-term, the President has asked us, or
11 the report recommends, that we look at six particular areas where
12 we might make more immediate and early progress.

13
14 One is creating more parks and safe outdoor opportunities in
15 nature-deprived communities. Once again though, supporting
16 locally-led efforts, particularly in communities that
17 disproportionately lack access to nature and its benefits. We
18 need to support tribal-led conservation and restoration
19 activities, and we are directed to review our most successful
20 conservation programs to determine how to better include and
21 support tribal governments. That could include working with
22 Congress to revise underlying statutes or developing technical
23 assistance and capacity-building grants to support indigenous-led
24 conservation efforts.

25
26 Additionally, federal agencies should take steps to improve
27 engagement with American Indians, Alaskan natives, native
28 Hawaiians, and other territorial native groups on the care and
29 management of public lands and waters, particularly regarding
30 sacred ceremonial sites and trust and treaty rights.

31
32 We are asked to expand collaborative conservation of fish and
33 wildlife habitat and corridors, taking steps -- We should take
34 broadly-supported steps to stem the decline of fish and wildlife
35 populations and their habitat throughout the country, including
36 through such wildlife corridors and fish passage.

37
38 It explicitly calls for the expansion of the National Marine
39 Sanctuary System and the National Estuarine Research Reserve
40 System, and these are NOAA programs that are run through the
41 National Ocean Service, and not the Fisheries Service, but the
42 report does call for that expansion, and, in particular, for this
43 group, it recognizes the work of the regional fishery management
44 councils, under the Magnuson-Stevens Act, and calls for NOAA to
45 work closely with the councils to identify areas, or networks of
46 areas, where fishery management efforts would support those long-
47 term conservation goals, as I said, the three overarching goals at
48 the beginning of this presentation and in the report.

1
2 We are to look for increased access to outdoor recreation, and we
3 are to incentivize and reward voluntary conservation efforts for
4 fishermen, ranchers, farmers, and forest owners, and, as I
5 indicated before, continue to look with a focus on creating jobs
6 by investing in restoration and resilience, and, in addition, we
7 know that restoration efforts themselves can be job creators. The
8 land that is conserved can function to support broader jobs across
9 the landscape.

10
11 The report also calls for the putting new diverse generations of
12 Americans to work, such as through the Civilian Climate Corps that
13 can help conserve and restore public lands and waters towards
14 meeting the 30 percent goal, and that is actually a function of a
15 different Executive Order.

16
17 The next steps, this report is a starting point. Once the report
18 was issued, we began a process of formally and informally engaging
19 states, tribes, territories, stakeholders, and the public,
20 including the fishery management councils, through things like
21 this, and we had intended to reach out to the Caribbean Council
22 earlier, and I apologize for the miscommunication, but we're glad
23 that we're here now.

24
25 The next slide just talks about NOAA authorities, and so, as we
26 engage with the council and others, NOAA has certain distinct
27 authorities that it's bringing to bear in this process, including
28 the Sanctuaries Act, the Coastal Zone Management Act, the Marine
29 Mammal Protection Act, and the ESA, but in particular is the
30 Magnuson Act, dealing with the councils and looking at the various
31 time/area closures that the council has adopted and figuring out
32 how they align with the overarching three mandates that the
33 President laid out, or that this report laid out, and whether or
34 not they should therefore be considered as conservation areas for
35 the purposes of this effort.

36
37 I would also mention the Antiquities Act, which is not a NOAA
38 authority, per se, but we are often -- If the President designates
39 a monument in federal waters, in ocean waters, the President often
40 provides co-management authority to NOAA, and it is not a given,
41 but, for all of the current ocean monuments, we do have co-
42 management authority, and so that is one of the authorities that
43 we also bring to bear, and so, as we seek comments on this, we ask
44 the councils -- Just keep in mind these various statutes which allow
45 NOAA to act and interact in aligning these conservation goals.

46
47 The last slide is what we're seeking from you, and so, today, we
48 wanted to provide this report to you and get any input that you

1 may have and answer any question that you may have, and this is a
2 list of questions that we are asking, and this slide says the
3 public, but we are asking you today, as the council, to think
4 about.

5
6 We've done a number of outreach, and we've done a number of Federal
7 Register notices, and we've done eight Federal Register notices,
8 and I think we are going to do one more shortly, that talks about
9 these things, but we're interested in a number of overarching
10 questions, and I am not going to read all of them, but I'm going
11 to outline a few of them that I think touches on this.

12
13 We laid out the three overarching objectives like loss of natural
14 areas, addressing climate change and resilience, addressing
15 disparate access rights, and what types of conservation measures
16 are current effective at addressing those three overarching goals?
17 Are there additional actions that would be effective at dealing
18 with that?

19
20 What are the appropriate tools? I mean, we know the councils can
21 act and recommend closed areas that NOAA implements, and many of
22 them are designed that would complement those overarching
23 objectives, and some are not, but many would, and what criteria
24 should we use to evaluate whether or not to pursue additional
25 measures to meet those overarching objectives, and what role does
26 the Magnuson Act play in that, and what role do any of the other
27 NOAA authorities play in that?

28
29 How then -- How do we account for what is or what is not
30 conservation? Of those authorities, a different way of talking
31 about this is we need to figure where we are on the spectrum of
32 achieving 30 percent or more, and what of the type of actions that
33 the councils put in place should we take into account, given that
34 the council's objectives can complement, but are not always aligned
35 with the three goals that we laid out there.

36
37 I am aware, and I'm sure the Caribbean Council is aware, of the
38 efforts of the Council Chairs Committee to formulate a broader
39 workgroup that is designed to accumulate the various council
40 actions on area-based management and to talk about what is good or
41 not good and what works or doesn't work with that, with the idea
42 that that could feed into this process about which council actions
43 actually do mesh and align well with the President's objectives,
44 and so should count for the 30 percent goals and which ones might
45 not, and it's not that they were bad actions, but they were
46 designed under the Magnuson Act to maybe meet different goals.

47
48 Then, finally, how would we support and collaborate with

1 stakeholders through broader participation and restoration
2 objectives, and I see that the presentation has gone away, and I
3 think that's fine, and I don't think we need to put it up again,
4 but those are the kinds of questions, and so it's what should go
5 into the report, how should we craft conservation, how should we
6 look at the various measures that we currently deal with,
7 particularly the council deals with, how could those be improved,
8 if at all, and then how do we collaborate with stakeholders, and
9 so that's the overall presentation.

10
11 I apologize, again, for this being late in the process, and,
12 currently, we are working on the annual report, and we are trying
13 to get the atlas together and trying to decide what guidance we
14 have on what really is conservation or not. With that, Mr. Chair,
15 I am happy to take questions or have any feedback, if the council
16 would like to give it to us now or later, into this process.

17
18 **MARCOS HANKE:** Thank you very much. I hope you can hear me, and
19 I'm going to pass the mic to Miguel Rolon, and is there anybody
20 from the council that would like to make a question for now,
21 council members? We have J.P. from the DPNR USVI that is going to
22 make a question.

23
24 **JEAN-PIERRE ORIOL:** Something that's already being done in Puerto
25 Rico and the Virgin Islands, back in 2013, the Caribbean
26 Biodiversity Fund launched the Caribbean Challenge Initiative, and
27 it mostly focused on the conservation on water areas of the
28 Caribbean, and I think the goal at the time was 20 percent, and
29 they have since -- I believe, in 2018, they may have upped that to
30 30 percent, but both Puerto Rico and the Virgin Islands actually
31 sent letters to the Caribbean Biodiversity Fund for inclusion, and
32 I believe both territories were granted observer status, since it
33 is something that is mostly state and territory combinations.

34
35 Again, it was to show alignment with our Caribbean partners on the
36 conservation efforts, particularly with the water areas, and then
37 also some sub-goals toward climate change and renewable energy and
38 such, and I think those two things align, and we can see where,
39 from particularly the water side of things, where this also feeds
40 into the American the Beautiful initiative, and so I just wanted
41 to make sure that you guys were aware that the U.S. Caribbean has
42 in fact been doing something along these lines already,
43 particularly on the water side, and then we can also tie in where
44 some of our lands also try and -- Or assist us in meeting that 30
45 percent goal, and so thanks.

46
47 **MARCOS HANKE:** Sam, did you want to make any comment?
48

1 **SAMUEL RAUCH:** I appreciate that comment, and it is certainly true
2 that this effort was influenced by a number of international
3 efforts on the ocean, and I can't speak for the origins of the
4 land part of it, because we, as the Marine Fisheries Service, we
5 deal mostly with the ocean part, but, on the ocean part, this did
6 seem to build on a number of these international efforts.

7
8 I will mention that, the various ways that these international
9 groups calculate progress, whether it's conservation through the
10 Caribbean effort that you mentioned, which is very useful, and
11 there are other ways, and there is the IUCN is doing one, and there
12 are different ways that you might calculate the amount of waters
13 preserved or conserved or other kinds of issues, and the U.S. is
14 going to look at all of those things, but they will develop a U.S.-
15 specific criteria that the U.S. monitors, and so I imagine that
16 much -- I think you phrased it as complementary, and I think it
17 will be complementary, but it will not be -- The U.S. will decide
18 on its own exactly what the criteria should be, but it's already
19 influenced by a lot of these principles that you have talked about.

20
21 On the land side, we are currently talking about how you can have
22 a consistent view of both land and water, and you need to be
23 mindful that the President's mandate was for both, and there needs
24 to be some consistency about we think about the ocean, versus how
25 we think about land, and you can see, throughout the report,
26 there's a lot of focus on not just the ocean-based issues, but the
27 land-based issues are quite important as well, and so I appreciate
28 the efforts that Puerto Rico and others are making in this regard,
29 and we will make sure to take that into account as we move forward
30 with the further planning on this effort, and so thank you.

31
32 **MARCOS HANKE:** Thank you, Miguel Rolon.

33
34 **MIGUEL ROLON:** We would like to thank Sam for the presentation,
35 and, just for information, the Caribbean Council has been involved
36 with the sub-committee of the councils group, the CCC, and this is
37 a committee of the area-based management, and that sub-committee
38 is looking at the areas that we have closed for the purposes of
39 the Magnuson-Stevens Act, the areas that have been closed by the
40 local governments, and to check whether those areas comply with
41 the requirements of the 14008 Executive Order.

42
43 With Sam's presentation, you have a series of questions here, and
44 they are on the webpage, and we have a link to NOAA, and it is the
45 intention that the staff will prepare the response, and we will
46 circulate it among everybody, but the response has to be submitted
47 before December 28 to NOAA Fisheries, but our response will be
48 based on previous discussion of the council.

1
2 In addition, each government could also send a letter, a letter by
3 the Commissioner and a letter by the Secretary of the DNR of Puerto
4 Rico, addressing these questions, because, like the Commissioner
5 said, the two local governments really have been involved in
6 international bodies concerned with the same issues, but it is
7 important to note that, although the United States is a signatory
8 of some of these international bodies, this executive order calls
9 for the an approach to the Thirty by Thirty, and so the council is
10 going to submit that letter, and the process will continue, and
11 there are some deadlines that, as Sam said, that have to be met,
12 and you will have a chance to see the report, the national report,
13 and the committee report that is being prepared as we speak, and
14 those questions that will be addressed. At this time, Mr.
15 Chairman, does anybody, a council member, have a question in
16 relation to what Sam Rauch presented today?

17
18 **MARCOS HANKE:** I don't see any hands up for now. Sam, we are going
19 to make sure that we keep our ears open to the council members and
20 to all the stakeholders to produce this letter that we're going to
21 submit to you on time before the date you requested. Do you have
22 any other questions or points to express to the group?

23
24 **SAMUEL RAUCH:** I do not, and I apologize, and apparently I had
25 another slide that I didn't realize that I had that highlighted
26 how to submit comments, and I would say that we appreciate the
27 council's comments, but, if there are other stakeholders that
28 wanted to comment directly, they can take advantage of these
29 opportunities, but I do appreciate the council's time, and, if
30 there is nothing else, I am happy to sign off.

31
32 **MARCOS HANKE:** Okay, and I am going to offer our social media and
33 the ways we have to make this information available for comments.

34
35 **SAMUEL RAUCH:** Thank you.

36
37 **MARCOS HANKE:** Thank you very much. The next item on the agenda,
38 we have a presentation by Carlos Farchette on the --

39
40 **DAP CHAIRS REPORTS ON DAP MEETINGS ON COMPATIBLE REGULATIONS**
41 **(CONTINUED)**
42 **ST. CROIX**
43
44

45 DAP Chairs Reports on DAP Meetings on Compatible Regulations
46 (Continued)

47
48 **CARLOS FARCHETTE:** I just wanted to make a comment regarding the

1 compatible regulations discussions that we were having earlier,
2 and the St. Croix approach was a little different, and we wanted
3 to begin a discussion of the compatible regulations at the local
4 level first, using the St. Croix Fishery Advisory Committee.

5
6 St. Croix approached the compatible regulations a little
7 differently, and we felt that the discussion should begin at the
8 local level first, before we moved forward with our recommendations
9 to the council's district advisory panel.

10
11 Everything that you saw up on the screen that was presented before,
12 we have already completed most of that stuff, and I think we only
13 tabled one of the items that pertains to pots and traps, and, other
14 than that, the various recommendations that the members of the St.
15 Croix Fisheries Advisory Committee made will be taken to a vote,
16 maybe in the January or February monthly meeting, and, after that,
17 we would present our recommendations to the Director of Fish and
18 Wildlife, Dr. Angeli, to forward to the Commissioner for
19 consideration. That's it.

20
21 **MARCOS HANKE:** Thank you, Carlos. The next item on the agenda
22 will be the Discussion of Trawling Gear in Federal Waters.

23 24 **DISCUSSION ON TRAWLING GEAR IN FEDERAL WATERS**

25
26 **GRACIELA GARCIA-MOLINER:** Mr. Chair, if you may, please make sure
27 that, when you speak, you turn on the microphone, because,
28 otherwise, it won't be recorded, and so, even if I am next to you
29 with the phone or the other microphone, make sure that you are --
30 That everyone at the table has theirs turned on, so that we can
31 record the conversation.

32
33 It's really good that this presentation comes after Sam Rauch's
34 presentation, because it builds specifically on one of the issues
35 that they are encountering in terms of the essential areas of
36 protection and the Thirty by Thirty, et cetera.

37
38 This is not a new issue in the Caribbean, and this is a paper from
39 1944 that Maria found, and NOAA actually had cruises in the
40 Caribbean, where we used shrimp trawls and other types of trawls
41 to drag these nets on the bottom and got them snagged, et cetera,
42 and so there is some history as to the use of this gear in the
43 area.

44
45 Why are we discussing trawling? Specifically, it's because of the
46 14008 that has to do with designating MPAs to qualify for specific
47 designations under the EO and it also has to do with the funding
48 available, et cetera, and a revision of all of the areas that are

1 protected. The Executive Order asks for collaboration among
2 jurisdictions, and so that's not only the state and the federal
3 government, but it's also the Department of Interior, and it's
4 monument areas, and it's the Coast Guard, et cetera, and so fish
5 really don't understand about boundaries, and we do create quite
6 a number of artificial boundaries, and so collaboration is in the
7 essence of the Executive Order.

8
9 In reference to the area-based management and marine protected
10 areas that do not qualify for special conservation, that's the
11 issue that we have in our hands, because apparently we had
12 forgotten, in the authorized gears for the area, that trawls are
13 actually allowed for non-FMP species, and so it is the provisions
14 that people could actually come in and trawl through the area.

15
16 The other reason that we need to talk about it, and this is the
17 direction that we need from the council, is to keep on working on
18 the tables of authorized gears, and you have, in Appendix B of the
19 gear amendment that you have in the briefing book, the regulations
20 that are in place as of now and the changes that will take place
21 when the island-based FMPs are implemented. There are a number of
22 changes and a number of issues, but we still have trawls as part
23 of the authorized gears.

24
25 This is the old version, and so I marked in red, and you can see
26 it at the bottom of the screen, that trawl is allowed for the
27 commercial fishery of non-FMP species. There are a number of other
28 issues with these authorized gears, and so, once you review it,
29 just tell staff where you want us to go with the different gears
30 that are authorized for the different fisheries.

31
32 This is what you will see in Appendix B of the gear amendment, and
33 so it's a summary of everything that applies to Puerto Rico,
34 everything that applies to St. Thomas, everything that applies to
35 St. Croix, and there are differences in the authorized gears for
36 the different areas.

37
38 This is what we have to look at, in terms of the authorized gears,
39 and so I have marked, for each of the three islands, that we do
40 have trawl in the regulations, and that's what the council needs
41 to decide, whether we're going to continue to allow the use of
42 trawls, or at least to allow the fact that trawls would be allowed
43 to fish for things in the EEZ as they stand now.

44
45 Back to the areas of marine protected areas, and one of the issues
46 is that, even when we have a prohibition, the council has a
47 prohibition, on the use of bottom-tending gear in these areas,
48 trawling is still allowed in these MPAs for non-FMP species, and

1 so Bajo de Sico has a different regulation than Abrir la Sierra
2 and Tourmaline. Hind Bank is a completely no-take zone, the
3 Grammanik Bank has a seasonal closure, and Mutton Snapper and Lang
4 Bank in St. Croix all have a prohibition on the bottom-tending
5 gears, but, for non-FMP species, except for those areas where it
6 says that all fishing is prohibited during the season that it's
7 closed, you still have the possibility of someone being able to
8 use a trawl in these areas.

9
10 In terms of nets, and this is something that we had discussed this
11 morning from the DAPs, and also that it's in part of the
12 regulations that gillnets and trammel nets are prohibited in the
13 Caribbean EEZ, and so we already have that issue with the nets
14 taken care of in terms of the EEZ, and this is not really the case
15 for compatibility issues with Puerto Rico, for example, but nets
16 are also banned in St. Croix, and there are other regulations that
17 are implemented regarding the gill and the trammel nets.

18
19 These are the two types of trawls that you are likely to see if
20 anyone was going to come and use them in this area, the midwater
21 trawling and the bottom trawls. As far as we know, there is no
22 one using either one of these two gears in the U.S. Caribbean EEZs,
23 but, again, they could be used for non-FMP species.

24
25 With the regulation as it stands, that means allow trawl gear in
26 the EEZ and MPAs for non-FMP species, and you can go down the list
27 of pros and cons to keep the regulations in place or to actually
28 change the regulations that you have in place, and that would be,
29 for example, to ban all trawls from all of the EEZ or from the
30 MPAs, et cetera, and there is a picture on the right-hand side
31 that is part of the baseline of the characterization of the
32 mesophotic reef between thirty and fifty meters, and so there is
33 sponges and corals all over the place.

34
35 One of the big issues would be the destruction of coral habitats,
36 or sponge habitats, that are so important in those deep waters,
37 and the bycatch -- Probably, if it's usable, it could be a good
38 thing, but then you have the Endangered Species Act and those
39 species that are protected that could probably be impacted by
40 trawls.

41
42 Then you have -- It would be something to look at if you're
43 developing a new fishery, but then you have to weigh the tradeoffs
44 in terms of, it's a new fishery, and it could be economically
45 significant, but then, on the other hand, your coral-based reef
46 fisheries might be impacted by the damage to the coral and the
47 sponge habitats, and, then again, it's not a really good idea for
48 the management of protected species or for the protection of

1 essentially fish habitat and habitat areas of particular concern.
2 This is not an all-inclusive list, and it's just something that we
3 started looking at.

4
5 Trawling regulations across the jurisdictions, there you have it,
6 and the EEZ allows for non-FMP species to be harvested with a
7 trawl. For the recreational sector, it's prohibited for Puerto
8 Rico, as Regulation 7964 states, from 2010, that they are
9 prohibited both for the commercial and the recreational use, and,
10 in the Virgin Islands, as far as I'm concerned, and please correct
11 me if this is not correct, but, at least in the regulations that
12 we have read, it's allowed to use trawls. There are regulations
13 on certain other nets, but not specifically on trawls.

14
15 We need the council input and direction to the staff regarding the
16 determination of if a prohibition on trawling in all MPAs,
17 established by the CFMC is necessary, or a prohibition on trawling
18 in all of the U.S. Caribbean EEZ is necessary, and remember that
19 Puerto Rico has -- The Puerto Rico EEZ, the St. Thomas/St. John
20 EEZ, and St. Croix EEZ, or, if you believe that no action is
21 necessary at this stage.

22
23 Now, the question is how can that be done, whether it's through a
24 regulatory amendment, whether it's through the, once implemented,
25 island-based FMPs, and then when can this be done?

26
27 **MARCOS HANKE:** Miguel.

28
29 **MIGUEL ROLON:** You really do not have to be concerned how it would
30 be done, and you can just do it, because the staff will take care
31 of that, but the decision that we need is do you want to prohibit
32 trawling in all MPAs, and all the reason for that was, when we
33 were discussing, at the area-based management sub-committee of the
34 CCC that I mentioned before, it was pointed out that Hawaii and
35 Puerto Rico and St. Thomas/St. John and St. Croix, the U.S. Virgin
36 Islands and Puerto Rico and Hawaii, do not prohibit the use of
37 trawling in the MPAs, and that created a loophole.

38
39 In order for you to comply with the Thirty-by-Thirty, they
40 recommend these two councils to close the use of trawling in the
41 MPAs. The second question is do you want to prohibit the use of
42 trawling in all the areas that we call the EEZ, and also to
43 recommend the local governments to take action, if they consider
44 that something that should be done.

45
46 The first question is for the council, and do you want to prohibit
47 trawling in all MPAs declared as such by the council, by the
48 Secretary of Commerce, at the recommendation from the council?

1
2 **MARCOS HANKE:** Carlos and then Tony.

3
4 **CARLOS FARCHETTE:** I have a motion. Should I go ahead with that?
5 Do you want to put it up there?

6
7 **MARCOS HANKE:** In the meantime, Jocelyn is requesting for a turn
8 to speak. Jocelyn.

9
10 **JOCELYN D'AMBROSIO:** Thank you. The only thing that I was going
11 to speak to was just the comments about prohibiting trawling as
12 necessary for any qualification under the Thirty-by-Thirty goals.
13 As we just heard in Sam's presentation, they are still sort of
14 developing the idea of what would qualify as a conservation area,
15 and so I don't know that it's strictly necessary for trawling to
16 be prohibited in the marine protected areas for those to qualify
17 for coverage under Thirty-by-Thirty, and I think that's still an
18 open question, as to what conservation means, and so I wouldn't
19 necessarily base the decision on that rationale, but, if there's
20 other reasons to investigate prohibiting trawling, including to
21 protect the habitat, and for protective reasons for the fish
22 species, then certainly it makes sense to consider it.

23
24 One other thing to note about the marine protected areas that we
25 have, sort of the areas that are closed to the bottom-tending
26 gears, those prohibitions spell out which gears you can't use, and
27 so it says things like traps and pots can't be used in the Bajo de
28 Sico area, and you could add trawls to that list as well, if that
29 was something that you were concerned about there. If the purpose
30 of those areas was to protect it from bottom gears, you could add
31 that bottom tending trawl gear that Graciela had shown.

32
33 **MARCOS HANKE:** Thank you, Jocelyn. Carlos.

34
35 **CARLOS FARCHETTE:** (Mr. Farchette's comments are not audible on
36 the recording.)

37
38 **MARCOS HANKE:** Let's finish and put the motion up there, and start
39 the discussion, and then we can follow-up on the process.

40
41 **CARLOS FARCHETTE:** To prohibit trawling in the MPAs. Okay. I
42 **move to prohibit the use of trawl gear in the MPAs of the U.S.**
43 **Caribbean EEZ.** It was seconded by Tony Blanchard. Any discussion?

44
45 **JEAN-PIERRE ORIOL:** This is more discussion just on language, and
46 you can guys can advise where we would be able to clean this up,
47 but the motion is for specifically trawl gear, and I think that's
48 -- One of the things that we have to recognize is that the activity

1 of trawling is probably going to be -- If things progress, in terms
2 of how we manage our sargassum influxes and issues around the
3 territory, that it will be that gear that is being used, and so
4 it's not necessarily trawling gear for commercial fishing, but
5 we're stating here that it's trawl gear inside the MPAs, the EEZ.

6
7 You guys can advise best how we can create language that would
8 allow permission, special permits or whatever, to be issued by the
9 jurisdictions that would allow for that type of gear for this
10 specific activity, particularly as it relates to removing or
11 redirecting sargassum, just because those are the discussions that
12 are taking place within the territories, in terms of management of
13 the sargassum issue and how we get rid of it, and it will be more
14 at-sea, rather than inside or nearshore, when it causes the most
15 problems, and so I just wanted to put that on the record for --

16
17 **MARCOS HANKE:** Do you have a suggestion for the language presented
18 by Carlos?

19
20 **JEAN-PIERRE ORIOLE:** I think, if we say -- If it's trawling, and
21 perhaps it's not necessarily trawl gear, but the intent for fishing
22 purposes, is one way to do it, specifically, or if we leave it in
23 -- If we have it somewhere that there are exemptions from this,
24 and then the territories would be able to issue whatever the
25 necessary permits are for it, but I just wanted to make sure that
26 we don't just have this outright prohibition on the gear type,
27 because we know it's used for other purposes.

28
29 **MARCOS HANKE:** I have Miguel and Jack and Tony.

30
31 **MIGUEL ROLON:** (Mr. Rolon's comment is not audible on the
32 recording.)

33
34 **CARLOS FARCHETTE:** I have a comment on that, but maybe I should
35 let Jack go first.

36
37 **JACK MCGOVERN:** I was going to say the exact same thing as Miguel,
38 just bottom-tending gear, or bottom-trawl gear, just to make sure
39 that it's the trawl gear that is contacting the bottom.

40
41 **MARCOS HANKE:** Tony.

42
43 **TONY BLANCHARD:** I understand what the Commissioner is saying, but
44 I do believe that the sargassum was a part of the ecosystem until
45 it hit the shoreline, and I thought that was how the regulations
46 went. Now, as to trawling gear, whether it's bottom gear is even
47 worse, but, even if you trawl through the mid-water column, you
48 will affect the same species that we are managing, to a certain

1 degree, and so I think that trawling gear should be removed,
2 period.

3
4 I understand what he's saying about the sargassum, and I'm not
5 sure how that is going to be dealt with, but you can manage the
6 sargassum when it gets closer to shore, and you don't have to be
7 in the middle of the ocean to try to capture it, and you could do
8 that a couple of hundred yards offshore, and so I understand what
9 he saying about the trawling gear and that there is ways that you
10 could possibly deal with the sargassum while it's outside in the
11 EEZ, but, to my understanding, as far as I know, the sargassum is
12 a part of the ecosystem until it comes to shore, unless I am
13 totally wrong.

14
15 **MARCOS HANKE:** We have Carlos.

16
17 **CARLOS FARCHETTE:** My next motion goes a little further, and so I
18 do agree with the Commissioner in saying that we've got to figure
19 out the language to use here that would allow us to use a barrier
20 to deflect this sargassum issue that we've got, that the USVI is
21 encountering, and also Puerto Rico, because I know that they're
22 suffering from that too, and so maybe, in my next motion, maybe we
23 can figure out the type of language to put in there, like
24 specifically for fishing.

25
26 **MARCOS HANKE:** We have Jocelyn requesting a turn to speak.

27
28 **JOCELYN D'AMBROSIO:** Thank you. I just have a couple of points.
29 The first one is just a point about process. The motion that
30 Carlos had mentioned was about moving to prohibit something, and
31 I would recommend that any motion is talking about developing an
32 amendment, or developing an options paper, to explore prohibiting
33 the trawling gear, just so it's clear that we are going to make
34 that decisions with documents and analysis, so it's not that we're
35 deciding now whether or not to make a prohibition, but that we're
36 just starting that process of developing an amendment to explore
37 that prohibition.

38
39 Then, in terms of the language on any prohibition, the council's
40 authority is overfishing, as we've been talking about that, and so
41 the area closures, for example, they say fishing with particular
42 gears when particular areas are closed, and so the gear closure
43 for the bottom gears is fishing with pots, traps, bottom longlines,
44 gillnets, or trammel nets is prohibited year-round, and then it
45 states in the particular closed areas.

46
47 If one of the ways that we were looking at prohibiting this
48 trawling gear was to expand that closure, then we would just add

1 the trawling gear to that list, and that's one of the potential
2 options that we could explore in the document, and then that,
3 again, makes it clear that it's related to fishing with that gear,
4 again because of the council's authority over the fishing.

5
6 One thing I will note though is that fishing, under the Magnuson
7 Act, is pretty broadly defined, and so it includes activities that
8 can reasonably be expected to result in the catching, taking, or
9 harvesting of fish, and so, on the sargassum question, to the
10 extent that there are fish in the sargassum, it's possible that
11 trawling for sargassum could be reasonably expected to result in
12 the catching, or taking, of fish.

13
14 Then I would note the third point, which is the jurisdictions, and
15 so the council is looking at management within federal waters, and
16 so this wouldn't affect any use of those gears in the territorial
17 waters, and so those were just the points that I wanted to make,
18 and I am happy to answer any questions.

19
20 **MARCOS HANKE:** Jocelyn, do you have any recommended language for
21 a motion to address what we are discussing and the record that
22 have so far?

23
24 **JOCELYN D'AMBROSIO:** I would recommend something fairly broad, so
25 that we're not prescribing like how we want to accomplish any
26 prohibition, because, for example, Graciela's presentation had a
27 couple of different options in there, and so maybe something like
28 moving to explore developing an amendment to prohibit trawling
29 gear in particular areas or throughout the Caribbean EEZ.

30
31 I don't know if we want to start immediately with developing an
32 amendment, or if we want to say come back with an options paper,
33 and I know that's something that we've done before, where we just
34 look at options, and then, from there, we decide to move forward
35 with an amendment, but something along those lines of sort of that
36 exploratory paper that comes up with different ideas for how to
37 accomplish the goal here, and then, also, if we could state the
38 goal, if it's that we want to protect bottom areas from the bottom-
39 trawling gear, or if we're concerned about trawling mid-water as
40 well, something that adds that as well, so that we kind of know
41 which options to look at.

42
43 **MARCOS HANKE:** I have Tony that is waiting and then Miguel.

44
45 **TONY BLANCHARD:** Okay. Seeing that I seconded the motion, I would
46 like to offer this, which I think is an easier fix to this problem,
47 to Carlos, since he was the motion maker. Just put trawling gear,
48 period, because what we're really talking about is managing EEZ

1 waters. When it comes to territorial waters, then the territory
2 can decide how they want to deal with that, and that's my
3 suggestion to Carlos.

4
5 **JEAN-PIERRE ORIOLO:** Even if you were going to allow the trawling,
6 it's still never going to be four, five, six miles out. It will
7 be within the first mile, which is territorial waters, and so I
8 think that, from a management perspective, we'll be able to address
9 that issue closer to shore, in terms of what it is what to -- So
10 I don't have any objections to the trawl gear as the basis of the
11 motion.

12
13 **MARCOS HANKE:** Okay. Then we'll go back to the original language
14 and go for a vote.

15
16 **JULIAN MAGRAS:** Marcos, I had my hand up for a comment, and I'm
17 sorry to interrupt.

18
19 **MIGUEL ROLON:** The motion that is on the screen reads: Prohibit
20 the use of trawling gear from within the MPAs of the U.S. Caribbean
21 EEZ. We have a motion made by Carlos Farchette and seconded by
22 Tony Blanchard. After a long discussion, we are ready for a vote.
23 Carlos.

24
25 **CARLOS FARCHETTE:** Yes.

26
27 **JEAN-PIERRE ORIOLO:** Yes.

28
29 **DAMARIS DELGADO:** Yes.

30
31 **TONY BLANCHARD:** Yes.

32
33 **MARCOS HANKE:** Yes.

34
35 **VANESSA RAMIREZ:** Yes.

36
37 **MARCOS HANKE:** Richard, did you want to --

38
39 (Not audible on the audio recording.)

40
41 **MARCOS HANKE:** Carlos, did you have a second part?

42
43 **CARLOS FARCHETTE:** I think I'm going to confuse things even more.
44 The motion is request staff to develop an options paper to prohibit
45 the use of gillnets, trammel nets, trawl nets, driftnets, and purse
46 seines for the harvesting of fish in the U.S. Caribbean EEZ.

47
48 **GRACIELA GARCIA-MOLINER:** For reef fish and spiny lobster.

1
2 **CARLOS FARCHETTE:** To prohibit the use of gillnets, trammel nets,
3 trawl nets, driftnets, and purse seines for the harvesting of fish
4 in the U.S. Caribbean EEZ.

5
6 **MARCOS HANKE:** The motion was seconded by Tony Blanchard. We will
7 start the discussion.

8
9 **GRACIELA GARCIA-MOLINER:** A point of clarification.

10
11 **MARCOS HANKE:** Go ahead, Graciela.

12
13 **GRACIELA GARCIA-MOLINER:** The "use" is one, and a point of
14 clarification is fish, in the sense of the Magnuson-Stevens Act,
15 that includes --

16
17 **MARCOS HANKE:** We are open for discussion. Go ahead, Carlos.

18
19 **CARLOS FARCHETTE:** Okay. I know that it's kind of a general
20 statement there, but I know that we do not manage, or the council
21 does not manage, HMC species. However, Marcos, being a member of
22 the advisory panel to the HMS advisory group, I would also like to
23 see if you can find a mechanism with the advisory panel to prohibit
24 the use of these gear types of the harvesting of BAYS tunas,
25 bigeye, albacore, yellowfin, and skipjack.

26
27 **MARCOS HANKE:** If you want to address that, we are missing purse
28 seine nets there.

29
30 **CARLOS FARCHETTE:** Purse seine is there.

31
32 **MARCOS HANKE:** I don't see it. Okay. For sure, we can -- Depending
33 on the results, we can inform and discuss further within the HMS
34 office this --

35
36 **CARLOS FARCHETTE:** My real concern is for the mahi, wahoo, and
37 BAYS tunas.

38
39 **MIGUEL ROLON:** (Mr. Rolon's comment is not audible on the
40 recording.)

41
42 **MARCOS HANKE:** Let's pass the motion first, discuss the motion.
43 Any further discussion on the motion? Graciela.

44
45 **GRACIELA GARCIA-MOLINER:** Mr. Chair, I don't know if you have
46 Edward Schuster trying to speak. His hand is raised.

47
48 **MARCOS HANKE:** Edward.

1
2 **EDWARD SCHUSTER:** In terms of gillnet, there is one fishery that
3 the fishermen use, that they fish in the EEZ for, is flyingfish,
4 and they use a shallow surface --

5
6 **GRACIELA GARCIA-MOLINER:** Can you hear us?

7
8 **EDWARD SCHUSTER:** I can hear you. Can you hear me?

9
10 **GRACIELA GARCIA-MOLINER:** Hold on a second. Okay.

11
12 **EDWARD SCHUSTER:** Okay. There is one type of fishery that uses
13 the gillnets in the EEZ, and that's when the fishermen are catching
14 flyingfish, and it's a surface gillnet, and it's usually outside
15 of the EEZ, or in the EEZ, sorry, for St. Croix. It's a surface
16 gillnet.

17
18 **MARCOS HANKE:** Thank you, Eddie, but, like Miguel explained, this
19 is an options paper, and all those considerations and detailed
20 discussions are going to take place later on, and it can be
21 addressed, but thank you for putting that on the record. Any
22 further discussion before we go to the vote?

23
24 **MIGUEL ROLON:** Marcos, what is the timeframe for the options paper?

25
26 **MARCOS HANKE:** Miguel is recommending to include a timeframe for
27 the options paper, and just a recommendation, Miguel?

28
29 **MIGUEL ROLON:** The recommendation is to ask the staff when this
30 can be done, because the staff has a bunch of other stuff to do,
31 and so, if you are happy to have it by the second part of 2022,
32 fine. If you want it for January, it's not going to happen.

33
34 **MARCOS HANKE:** When does staff feel that it can do the work on the
35 options paper to present to the council?

36
37 **MARIA LOPEZ:** There is a couple of things that we can address with
38 this prohibition, and one of them is the evaluation of the
39 pelagics, and there is pelagic species that are new to management,
40 for example the dolphin and the wahoo, and we have talked that
41 there are regulations for gear prohibitions, or gear allowances,
42 for these species that we have not set yet, because these are new
43 species, and this could be something that could be addressed in
44 this potential amendment, once we set an IPT and look into
45 different things.

46
47 There is a gear amendment, Part Number 2, that we are planning,
48 and this might take a little longer, because it's going to be very

1 comprehensive, and that was one option that staff has discussed,
2 is to include this, given that it's related to the gear types
3 included in that amendment. However, if the council wants to give
4 priority to this, then we can develop an amendment, a separate
5 amendment, that will deal with all these questions and different
6 things.

7
8 Right now, we have several items on the agenda, and I cannot say
9 exactly how long it will take to create this, but I think the
10 council will need to decide what is the priority for this, versus
11 other actions that we have. Maybe, at the end of the meeting,
12 once we go through all of the other actions that we have to discuss,
13 and you guys decide what you want to move forward with or not,
14 maybe we can start prioritizing. Like, for example, if you want
15 it for 2023, because 2022 is already here, but, I mean, everything
16 can be done as long as we have a list of what the council would
17 expect to do first.

18
19 **MARCOS HANKE:** Maria, a question to you. If you change "options
20 paper" there in the motion, changing the language, and include the
21 work that you already mentioned that is in place, that is going to
22 take place, as another route to do this, which change in the
23 language will address what you are saying that we're going to get
24 to the same result?

25
26 **MARIA LOPEZ:** Let me see if I get it right. What you're saying
27 is, instead of doing a separate options paper, just include this
28 as part of the Gear Amendment Number 2?

29
30 **MARCOS HANKE:** Yes.

31
32 **MARIA LOPEZ:** We will have to change -- I assume we will have to
33 change the motion.

34
35 **MARCOS HANKE:** Go ahead, Graciela.

36
37 **GRACIELA GARCIA-MOLINER:** -- implemented yet and so, yes, you can
38 put it into the amendment that is happening now, but that will
39 push everything back, in terms of changing the buoy gear amendment
40 that is to come in sooner rather than later, and so that's one
41 thing.

42
43 Number two is I was going to ask whether the possibility of going
44 straight through a total prohibition of the trawls, which are the
45 main issue and which are directly related to Executive Order 14008,
46 because of its impact to the benthic habitat, and it doesn't have
47 precedence over everything else, and so those are the two issues
48 that I have.

1
2 **MIGUEL ROLON:** What Maria is saying is that they already have
3 things in the mill, and we need to prioritize. If you want this
4 options paper let's say by July, it won't happen, and so, if the
5 council considers that this something that can wait, because you
6 need to implement the island-based FMPs first, and then let the
7 staff organize it themselves, and they don't have to give you a
8 date now, but we would like to have the options paper at least
9 before the first half of 2023. That way, you will see how things
10 go.

11
12 What Graciela is saying, I personally agree with her, because the
13 trawling is a big issue now, but the trawling within the MPAs, and
14 I am talking about the bottom trawl, and so you already have a
15 motion for that, and you can amend it. Jack.

16
17 **JACK MCGOVERN:** With the previous motion, and with the MPAs and
18 the trawling, I think we need a document for that, and we need
19 some sort of amendment, so that we can get those regulations in
20 place, and we just can't prohibit it, and so I don't think we did
21 that, did we? Did we come up with any options paper for that?

22
23 **MIGUEL ROLON:** I believe that, for that, the idea was to include
24 everything for the gear that is already prohibited in the MPAs,
25 and Jocelyn said that you have the bottom trawls and the gear that
26 you had prohibited, and so, following Jack's question, Maria, what
27 Jack is saying, and, for the prohibition of the trawling gear, we
28 can do that just by amending the document that has the prohibition
29 of the bottom-tending gear in the MPAs, and just add the bottom
30 trawl prohibitions?

31
32 **MARIA LOPEZ:** We have to have an amendment, and what we can do is
33 -- We will have to do an amendment to the FMP, so that it can be
34 implemented and so that we prohibit that for everything, and I
35 would assume that one of the options would be to include the MPAs,
36 if we need to. Like, if you just want to consider this trawling
37 gear prohibition on the MPAs, that will be an action by itself.
38 If you want to prohibit it everywhere, that will include the MPAs,
39 and so those are -- To me, that will be two options that we could
40 include in an options paper.

41
42 The question is, and I am going to clarify this, but, right now,
43 we have a gear amendment, and Gear Amendment Number 1 is the buoy
44 gear amendment that is ready for final action today. We think
45 that, if you guys want to move forward with that one, then we
46 shouldn't add anything else to it, right?

47
48 There is a Gear Amendment Number 2, which is going to be in the

1 works soon, and this is the one that you all have been asking for
2 for a gear inventory, that we go through all the islands and we
3 look at all the gears that are used, and we document that, and
4 then we bring that to the council, and the council can decide if
5 there needs to be any modifications on the gears that are allowed
6 to be used by the different fisheries in the different islands.

7
8 That amendment is going to take a little time, because there's a
9 lot of work on that one, because you have seen -- There hasn't
10 been a gear inventory since the late 1980s, and so it's going to
11 take a while.

12
13 The trawling, this list of gear could be included in this
14 amendment, but, if there is an urgency to get this done, we can do
15 it as a separate action, and, as a separate action, we can treat
16 it as an amendment to all of the plans, like a generic amendment,
17 to do whatever prohibition you want, if it's on the whole EEZ, if
18 it's in the MPAs, et cetera, but that depends on the urgency.

19
20 What I was saying about the priorities is because there are other
21 amendments in the works, and, as a reminder, as Graciela said, the
22 island-based FMPs are still not implemented. However, we already
23 have a lot of work done, so that, when the island-based FMPs are
24 in place, we can proceed with those proposed rules and get
25 everything in place, and so maybe I would recommend to the council,
26 if that's the way we want to go, to maybe not set a date right
27 now, but you can task staff to begin working on a document, and,
28 as soon as staff can have that ready, then we will be able to
29 present it to the council, just related to that trawling gear, and
30 I don't know, Jack, if you want to add anything else to that.
31 Thank you.

32
33 **JACK MCGOVERN:** (Dr. McGovern's comments are not audible on the
34 recording.)

35
36 **MIGUEL ROLON:** Going back to Maria's comments, we can lead instruct
37 the staff to modify the gear list that she is talking about and
38 then include the trawling gear. The sky will not fall if we do
39 not prohibit this in the next two years, because I doubt very much
40 that people will come here with trawls and trawl gear, but the
41 concern that we have, and this trawl mostly is going to happen
42 within the area of jurisdiction of Puerto Rico and the U.S. Virgin
43 Islands.

44
45 You don't trawl in the EEZ for -- There is not many places in the
46 EEZ to trawl and the bottom to trawl and use this gear, and so, if
47 the record is that you all agree, then we allow the staff to
48 continue the work that they are putting together and include the

1 prohibition of the trawling in the list of the gears that Maria
2 proposed, and it will go along with the work that they are doing,
3 and you don't have to
4

5 **MARCOS HANKE:** I think we have built a record that the council's
6 intention is to follow the best path to prohibit the trawling gear
7 and to protect our bottom and all the adverse effects that we
8 identify already. Graciela.
9

10 **GRACIELA GARCIA-MOLINER:** This is another issue that we need to
11 deal with, and that is that, in order to conduct an inventory of
12 the fishing gear, there has to be a funding source for that project
13 to take off the ground, because it would require to go around
14 Puerto Rico, around St. Thomas/St. John, around St. Croix, figuring
15 out what are the gears that the fishermen are using now and how
16 they have changed, because the last inventory that was conducted,
17 and this is different from the fishermen census, which accounts
18 for X number of hook and lines and things like that, but it's to
19 actually figure out how they are fishing for different things now.
20

21 This includes the plastic traps and things that Nelson and Julian
22 were speaking of this morning, and so, in order to conduct that,
23 and in order to have that gear amendment, which we were hoping it
24 would be Number 2, we need to identify the people and the funding
25 for that specific project.
26

27 **MIGUEL ROLON:** That is a doable project, and Graciela and I can
28 sit down with the Chair, and we can identify who is going to do it
29 and when, and then we can even hire graduate students, one in each
30 area, to conduct that study, and then Graciela and Maria can take
31 a look at it and put together a questionnaire of what it is that
32 Maria needs and how can we meet that information, and Graciela and
33 Maria can -- I am sure that they can put together the document
34 that we need to collect the information. Then Graciela and I can
35 identify the time and the persons who are going to do it, and the
36 budget will be between Angie and myself.
37

38 **MARCOS HANKE:** If I understand correctly, that motion is not
39 necessary anymore, correct?
40

41 **GRACIELA GARCIA-MOLINER:** I mean, we have the gears that Miguel
42 has talked about, and you need to tell staff that we are going to
43 work on this.
44

45 **MARCOS HANKE:** Maria.
46

47 **MARIA LOPEZ:** I think what we can do -- You don't have to remove
48 that, how about if staff works on an options paper just for this,

1 and then, when we bring that options paper, to decide if you want
2 to put it in an amendment or if you want to include it in -- I
3 don't think this is going to take a long time to put together,
4 probably, because there is no trawling.

5
6 However, the scope may be a little limited in the options paper,
7 because we already talked about you have mahi, and we have the
8 pelagics, and this is not just the trawls, but this is trammel
9 nets, and this is gillnets, and so this may be a little more --
10 Maybe we can put together something more simple, so that we have
11 an idea of what we're dealing with, kind of what we're going to do
12 today with the red hind paper, just kind of to have an idea of
13 what we're dealing with, and then the council can give us more
14 guidance as to, depending on the time that it will need, the staff
15 resources, et cetera, as to work to move forward with it, and so
16 let us consult, council staff and our branch staff, and then see
17 if we can have something by August, at least. I am not making a
18 compromise right now, but I will get back to you on that.

19
20 **MARCOS HANKE:** Graciela.

21
22 **GRACIELA GARCIA-MOLINER:** In addition to that, we need the Science
23 Center to be involved in the data that are available to-date, and
24 so that needs to be brought into their schedule.

25
26 **MIGUEL ROLON:** I think we have enough of a record, and so just
27 approve the motion and then allow the staff to work on it, and
28 they will have their own schedule, and they will provide an update
29 in 2022 of this activity that they are going to undertake.
30 Remember that the top priority is the implementation of the island-
31 based FMPs, and Maria has mentioned that several times, and so, if
32 you approve that, and move forward, and then let staff work it
33 out.

34
35 **MARCOS HANKE:** Carlos, let's vote on the motion.

36
37 **CARLOS FARCHETTE:** Yes.

38
39 **MARCOS HANKE:** Actually, let's do this. **Let's do all in favor,**
40 **say aye; any opposition. Hearing none, the motion carries.** Next
41 item on the agenda. The next item on the agenda is the Update on
42 Progress for Life History of Shallow-Water Reef Fishes with
43 Virginia Shervette.

44
45 **UPDATE ON PROGRESS FOR LIFE HISTORY OF SHALLOW-WATER REEF FISHES**

46
47 **VIRGINIA SHERVETTE:** I will start out by saying thank you so much
48 for allowing us the opportunity to present you guys with an update

1 on the work that we've been doing since 2013. Again, thank you so
2 much to everyone for the opportunity to update you on the work
3 that we've been doing.

4
5 It's a massive collaborative effort to be able to get the life
6 history information, and the whole point of our efforts in doing
7 this research are very focused towards providing life history data
8 for stock assessment purposes, and so what we've essentially done
9 is combined information from the original two presentations that
10 we were going to give, so that we could just do a brief presentation
11 and then give people time, plenty of time, to ask any questions or
12 to engage in discussion, and so I am going to try to get through
13 these relatively quickly, and hopefully I will succeed, but thanks,
14 again, and, again, this is just an incredible collaborative effort,
15 and it takes a village to get any of this work done.

16
17 Just a reminder that, last December, we gave you guys a summary
18 presentation of our -- Of the work that we had done up to that
19 point, and that included a summary of our novel approach to age
20 validation in data-poor U.S. Caribbean reef fishes, and these
21 efforts, so far, have resulted in establishing age estimation
22 protocols to validate through the validation process using bomb
23 radiocarbon for twenty species so far, and then some of the species
24 are included right here, in this visual over here, and this is the
25 now published North Caribbean Reference Decline Series for bomb
26 radiocarbon that we are able to use, that we developed and are
27 able to use, for doing this validation work.

28
29 Then just a reminder that age is absolutely a fundamental -- It
30 provides fundamental information in estimating the life history
31 parameters that are often then used in the stock assessment
32 process, and accurate age data is required, essentially, to
33 estimate information about growth, longevity, and mortality, and,
34 again, those are major inputs as part of the stock assessment
35 process, and so a lot of what I am going to present today, and a
36 lot of the work that we do, really is focused on obtaining these
37 accurate age estimates for the fish population and then the
38 associated information for the samples on reproductive biology as
39 well.

40
41 This is just a visual summary, to show you all the species that
42 our massive collaboration is currently trying to gather
43 information on, and so we organized this by platform, management
44 platform, and these are just the top-landed reef fishes that we're
45 currently investigating for reproductive biology, population
46 demographics growth, and we're also doing population connectivity
47 and stock structure work.

1 I wanted to start what we present today in the context of upcoming
2 SEDAR assessments, and so planned assessments, and so this is the
3 most recent SEDAR calendar that is available on the web, and it
4 was updated after the October 2021 meeting, and so, for the
5 Caribbean, we're going to start -- Now we have these three
6 management platforms, and so we've expanded out from really having
7 just one column to essentially three columns, one for each of the
8 management platforms.

9
10 Here, I have just summarized, and I am going to get back to this
11 slide at the end of the presentation, that, currently, we're
12 undergoing our assessment for queen triggerfish, and then planned,
13 and approved, for 2022 and 2023, and I'm sure Kevin is going to go
14 into some detail about this, with much greater emphasis in his
15 presentation after ours, and so, that 2022 and 2023, we're on the
16 calendar for yellowtail snapper being assessed for Puerto Rico,
17 and then also for the St. Thomas/St. John platforms, and, for St.
18 Croix, it's stoplight parrotfish.

19
20 In 2024, it's proposed right now to have spiny lobster undergo an
21 assessment for each of the platforms, and then, in 2025,
22 tentatively, hogfish is listed, but there wasn't an indication, at
23 this point, or an understanding, at this point, as far as for which
24 platform, and that was just a proposed, and Kevin can explain this
25 way better than I can, and so I'm just going to say that hogfish
26 is on there, but it's not clear exactly for what platform.

27
28 First, I just wanted to start out with queen triggerfish, because,
29 last year, we presented you our initial findings on queen
30 triggerfish, and we've started the assessment process, and
31 hopefully it's going to wrap up in the near future, and I just
32 wanted to update you on what we have found since the last time we
33 talked to you.

34
35 We did the validation work, and we used otoliths. Typically, the
36 species, triggerfish species, they use the dorsal spine to estimate
37 age, but it's not a good structure for that, and so we've proven,
38 for queen triggerfish, that spines do not provide accurate age
39 estimates, and otoliths do, and we have validate our otolith age
40 estimation method, through the radiocarbon work that we're doing,
41 and we have documented an overall longevity for this species of up
42 to forty years, and that's from some samples that we recently got
43 from North Carolina.

44
45 The older they get, the more like this they look, the otoliths,
46 and these are some beautiful ones that were from the U.S. Caribbean
47 samples that we have, but the maximum age we've documented so far
48 in Caribbean waters is twenty-three years, and this is just a

1 depiction of, if you used spine-based ages, you would get a very
2 different understanding of growth parameters, versus when we use
3 the now validated method with otoliths, and that's just to
4 emphasize the importance of this work.

5
6 We have here just a summary of what our overall findings are so
7 far for queen triggerfish, and so we wanted to present to everyone
8 what we have found from our efforts in the context of what Stevens
9 et al., which was a 2019 publication that came out, where they
10 basically synthesized life history information for commercially-
11 exploited reef fishes for Florida and the U.S. Caribbean, and they
12 basically attempted to identify a useful set of life history
13 parameters for each species.

14
15 Sometimes we get a little concerned, me and my team get a little
16 bit concerned, when individuals, other scientists, mention that,
17 oh, well, if we don't have this data for the Caribbean, we can
18 just substitute data from Florida, and so one of the things that
19 I want to emphasize with all of the stuff that I present today is
20 how what we found so far compares to what is in the literature for
21 other regions.

22
23 Stevens has made that very simple for us, by providing this paper
24 with this summary information, and so we're going to start with
25 queen triggerfish, and you can see that I've got it so that we'll
26 go through all the species that I am just going to briefly cover
27 today, with the same platform.

28
29 Stevens et al. reported a maximum age for queen triggerfish of
30 fourteen, and we have updated that, and we now that we get a
31 maximum age of at least twenty-three years in the Caribbean. Most
32 of our samples are fishery-dependent, and there are probably some
33 gear limitations related to the maximum size of fish that we have
34 so far, and the stock assessment is going on right now, and so the
35 gaps that we've identified in our life history data are something
36 that we will have to consider for a future assessment, but we
37 suspect, just based on the maximum size of our samples and the
38 maximum size that has been reported in the TIP data, and the
39 maximum size that we actually see with hook-and-line gear offshore
40 of North Carolina, that it is very possible that the queen
41 triggerfish in the Caribbean exceed that twenty-three-year maximum
42 age, but, again, that's going to take some more sampling effort,
43 some more fishery-independent, so we can get past some gear
44 limitations that traps with funnel sizes would create in trying to
45 get much bigger fish.

46
47 Here, we have reported for you, in comparison, our L_{∞} value
48 from our samples, the growth coefficient value, and that's the T_0 ,

1 which is part of the von Bertalanffy growth function, and then,
2 over here, for maturity, L_m represents 50 percent maturity, length
3 at 50 maturity, and then A_m represents age at 50 percent maturity.
4

5 Again, we have updated, doubled, at least, our current
6 understanding of maximum age for the Caribbean, and probably
7 tripled for the species, and our L infinity value, for the
8 population as a whole, is different, and it's a little bit smaller
9 than what is even reported from the literature, which was based on
10 spine ages from Brazil.
11

12 We also have looked at males versus females and found sexually
13 dimorphic growth. Males tend to be larger at the same age as
14 the females, and those are significant differences. As far as K
15 goes, the growth rate seems to be a little bit higher from what
16 was reported in Steven synthesized assessment, and then we have
17 also updated what the values are for the size at 50 percent
18 maturity and then also the age at 50 percent maturity, and, again,
19 they're different. Using data from other regions for queen
20 triggerfish is not necessarily a good idea.
21

22 Next, we wanted to update you on our stoplight parrotfish work,
23 because stoplight parrotfish is going to be the focus of a future
24 assessment for St. Croix, and so, for stoplight parrotfish, we
25 have validated their maximum age so far at seventeen.
26

27 With the genomics work that we're doing, our preliminary parrotfish
28 work indicates that there is no major population structure present
29 for the U.S. Caribbean. We are updating this evaluation of genomic
30 population structure with samples from Florida that a NOAA study
31 is providing us with access to the tissue, so that we can see
32 those, but, so far, for any of the parrotfish species that we've
33 looked at, we're not finding evidence that there are discrete
34 populations for each of the island management platforms, and it's
35 all one big population.
36

37 For our St. Croix samples, and so you can see down here that we've
38 got some questions for the SSC, because this assessment is not
39 going to be for another year, and so we -- It will be within the
40 next year that we'll probably get started, but we do want to
41 consult with the SSC on future sample collections, prior to the
42 assessment, to ensure that the data that we can provide on life
43 history is the most useful that it can be, and part of our questions
44 are sort of related to that our samples are mainly fishery-
45 dependent, and, in St. Croix, the majority of our stoplight samples
46 have been caught from spearfishing efforts, and those spearfishing
47 efforts are in depths typically less than twenty-five meters.
48

1 We have fishery-dependent samples also from St. Thomas/St. John
2 and Puerto Rico, and so we have a combined total, for our life
3 history work, of almost 2,000 samples, but, just for St. Croix,
4 we're limited to the 790 fish that we have so far, and then the
5 gaps that we've identified essentially are, if data exclusively
6 from St. Croix is utilized for the assessment, then we think we
7 need to get some more fishery-independent samples that include
8 juveniles, and so those smaller fishes, and then fish from deeper
9 sites, where deeper sites are typically speared, so that we can
10 get a full picture of what fish are actually out there around St.
11 Croix and not necessarily just what fish are caught and landed as
12 part of the fishery.

13
14 Here is our comparison with stoplight parrotfish in the Stevens
15 synthesis, and you can see that we have essentially doubled our
16 understanding of longevity, and we have found L_{∞} that's a
17 bit smaller than information that other studies provide, and we've
18 also found that the growth rate is about half of what was
19 previously understood, and this might relate just to some
20 inaccuracies with age estimates from other studies, and we're not
21 sure, because we validated our ageing process.

22
23 Then we've updated information, and, clearly, we have added -- Now
24 we have an understanding of the age at 50 percent maturity, and
25 then these guys start maturing at a relatively small size, and so
26 what we have found, from our samples, is that, across the whole
27 Caribbean, the U.S. Caribbean, the juveniles -- It's possible that
28 this number didn't necessarily have very many juveniles, but we've
29 found a much smaller size at 50 percent maturity than previously
30 reported.

31
32 Next, we have yellowtail snapper, and yellowtail snapper is
33 currently scheduled to be assessed for St. Thomas/St. John, and
34 then also for Puerto Rico, at the same time that the stoplight
35 parrotfish is assessed for St. Croix.

36
37 As far as yellowtail snapper go, we have quite an extensive set
38 for this species, but most of our samples are from a collaboration
39 in sharing data with SEAMAP, SEAMAP-C efforts for Puerto Rico.
40 Probably about half of these samples are from SEAMAP, and the other
41 half are from some fishery-independent sampling that we've done in
42 the past couple of years, but, in preparation for the stock
43 assessment, and, again, we would love to consult with the SSC on
44 this, for fishery-dependent samples in Puerto Rico, we just have
45 129, and so we think it would be important to obtain more.

46
47 We also need to get larger fish, and we are -- You can see, over
48 here, where our L_{∞} sort of tops out with this growth curve

1 compared to other regions, because they seem to have more larger
2 fish, samples, than we have in our current sample collections, and
3 this growth curve will probably change if we're able to enhance
4 the sampling for some representative large fish, and then it would
5 be great to get some juveniles, some small, immature fish, as well
6 to add.

7
8 Now, it's also scheduled to be assessed for St. Thomas/St. John,
9 and our fishery-dependent collections are a little bit more
10 extensive there, but, as you can see, our overall total collections
11 only include eleven fishery-independent samples, and so, for both
12 of those, for us to provide the most comprehensive and useful
13 dataset for the assessment, we would need to obtain more samples.

14
15 We have a proposal in, currently, for CRP, to try to fill these
16 needs, but it would be in a very short period of time, and we would
17 have to do all the sampling next year, since the assessment will
18 follow-up shortly after that, and so sampling needs, and definitely
19 we need more samples, we need more samples, but I'm always going
20 to probably feel like we need more samples, just to be able to
21 provide the most comprehensive dataset.

22
23 Here we are with our comparison for what was in the literature,
24 and so Stevens et al. reported a maximum age of twenty-eight years,
25 which came from some work I think in Florida. So far, we have
26 documented twenty-six years as the maximum age for the Caribbean,
27 and so that's really close.

28
29 I think, with larger samples, we could possibly see if that
30 increases a little bit, and then we modeled our data -- We tried
31 to model our data using a von Bertalanffy growth function in a
32 similar way to what was reported for Stevens synthesis, and so we
33 presented this no juveniles with total length, but we mainly use
34 -- We include juveniles in our growth model, and we report things
35 in fork length, and you can look here, and, if we don't have
36 juveniles included in the growth curve parameter estimates, you
37 end up with these somewhat not biologically-relevant T_0 values,
38 and so, by including juveniles, it definitely brings down our L
39 infinity value, but it provides a more realistic estimate for size
40 at age-zero, essentially.

41
42 Then, like I said, this is a collaborative effort with ongoing
43 work being done by DNER in Puerto Rico, and so I didn't have the
44 maturity estimates to report yet, because we're trying to make
45 sure we nail that down in the most accurate way possible, but we
46 will have those, and we'll be able to update this previous
47 information.

1 Next, we have hogfish, and hogfish -- We're not 100 percent sure,
2 and hopefully Kevin will definitely clue us in on a little bit
3 more, but we have hogfish collections from both Puerto Rico and
4 St. Thomas/St. John. We were funded to mainly focus, in the past,
5 on hogfish from Puerto Rico fishery-dependent efforts, but we have
6 been able to get some from St. Thomas/St. John, with the help of
7 Julian and some other fisheries in St. Thomas/St. John.

8
9 Here are our results, and we actually have a report on this that
10 I can share with anyone who is interested, because it was part of
11 a CRP grant that we had, and we submitted the final report, and
12 our sample numbers are summarized here, and the USVI really just
13 means St. Thomas/St. John.

14
15 If you asked me where our gaps are, I would tell you, once again,
16 that we need small fish, and we need really, really big fish,
17 because, right now, our size has maxed out essentially a little
18 bit smaller than what maximum size has been reported for other
19 areas, and we think it's related to just -- We just need to do
20 more sampling across a longer period of time, just to make sure
21 we're getting those larger fish.

22
23 Here, you can see that I did do a comparison between our St. Thomas
24 samples and the growth in Puerto Rico, and utilizing the data from
25 both of those, but anchoring where T_0 falls, based on other
26 literature, and the growth curves are very similar, but, depending
27 on how NMFS decides that they want to do these, with the SSC and
28 the council, how they want to utilize the data on life history,
29 they might have to separate out, and so that's why we kept those
30 separate, and this is the combined growth curve.

31
32 Then this is how our data compares to other studies that reported
33 on growth from Florida, and you see differences. Once again, just
34 to hit home that point that our results from the Caribbean show
35 consistently, for all these species, that there is differences in
36 growth and that applying Florida data to our populations isn't
37 necessarily a good idea, and so this is just a summary of how we
38 compare to what was in the Stevens synthesis.

39
40 Our max age is actually really close, and I think, again, if we
41 have the opportunity to get some larger fish, to go out and target
42 larger fish, maybe through working with recreational fishers, then
43 that would be awesome, and we could probably have an opportunity
44 to see if this is actually our maximum age for the Caribbean or
45 not.

46
47 Then, for our growth parameters, you can see, right now at least,
48 they are showing up very different to what has been reported from

1 the Florida literature, and we also are seeing differences in our
2 maturity estimates.

3
4 Those are the ones that are currently on the calendar, or are being
5 considered, and I also wanted to hit home on some of the deepwater
6 snapper species that we've been working hard to get information on
7 that are also part of the important -- They're considered part of
8 the top species that are landed, and I wanted to emphasize,
9 initially, with silk snapper -- For Puerto Rico, silk snapper is
10 the most landed fish, by pounds.

11
12 It has been for many, many years now, and we have tried to get
13 NOAA funding, federal funding, to support our life history work on
14 silk snapper, and, up to this point, we have not been successful.
15 We will keep trying, but, to do the silk snapper life history work,
16 this species is going to have to be assessed, right, and it's kind
17 of the top species for Puerto Rico, and it's going to be a priority,
18 and it's going to be on the calendar at some point after 2025, and
19 we're getting as much data as we can without having federal funding
20 and opportunistically trying to sample, but it's going to take
21 federal funding to be able to really do a large enough study, and
22 we're going to try to figure out how to get that started sooner
23 rather than later, so that we can get an expansive dataset that's
24 not limited to just one or two years before an assessment.

25
26 I am going to show you, in a second, the results from the work
27 that we've been doing on queen snapper, because it's the third-
28 top species for Puerto Rico, and so it's an important species, and
29 it used to be on the schedule, prior to this October update for
30 SEDAR, and so it's still an important species, and it will probably
31 be added back to the schedule for some time after 2025, or in the
32 future, and then blackfin is one that we see as an important fish,
33 deepwater snapper species, that contributes to landings across all
34 three islands, and so it's another one that we've really just been
35 working hard, in collaboration with fishers, to get samples for
36 and just get some preliminary data on.

37
38 Again, it's another species where we're trying to get federal
39 funding to do an extensive study, but we haven't been successful
40 up to this point, and so we're doing whatever we can.

41
42 For queen snapper Puerto Rico, we've been working on this 2013,
43 and, in general, we've been working on all these species starting
44 in 2013. For our queen snapper life history research, it has been
45 a major collaborative effort in obtaining and processing samples.

46
47 It was included, and we shared our samples with Kate Overly from
48 NOAA, who included samples from our collection efforts and our age

validation efforts as part of her thesis, and she defended it and did an excellent job, and this graph is actually one of the graphs that she created for her thesis, and it shows the 336 samples that we have aged from our fishery-dependent sampling efforts, combined with some fishery-independent samples that we got from Smith and Ault's work from 2017 to 2018, and also combined with some fishery-independent samples that Kate has obtained as part of her study that is focused on the video habitat work that she is doing in deep waters.

Right here, just as an example of one of the older fish that we have aged, I received funding from my university to pay for doing this age validation work on queen snapper. Because of the nature of the otoliths, and they're teeny-tiny, and so we had to go with a non-traditional method of using eyes, and using cores, to do this validation work, and so, for the samples, these fishery-dependent samples, we, Jesus, Wilson, and then Stacy Williams as well, have provided us with samples from the study that the council funded for work that they're doing on diet.

Those samples combined, we were saving the eyes from those, and we used the eyes from those samples to do the validation work, the estimation validation work, and then Kate has included that in her thesis that summarizes age, growth, and mortality results from all these combined samples, but I just want to emphasize that this is a huge collaborative effort, and it is ongoing.

We have additional samples that we've been collecting that we are working up right now from additional samples to have an even more expanded dataset that will be available for stock assessment purposes, and then we have not received money from NOAA to do our fishery-dependent collections.

Stacy did age, growth, and reproductive biology work, and we tried to get federal funding for this, but, just like with a lot of these species, we just haven't been successful yet, and we will continue to try, and so the majority of these fishery-dependent samples have been samples that I have personally spent my money to purchase, and we've also got a few that are from Stacy Williams and Diana's collections that the council did fund to get those samples for the diet work, but, again, just to show our dedication to these efforts, if we don't have the federal funding, we are cobbling together what we can find, just to get at these answers.

I just want to emphasize that there was a recent article from NOAA news media that was a bit inaccurate in depicting results from some of these efforts, and it kind of mixed and muddled with some of the work that Kate has been doing that was funded by NOAA for

1 the video work, and so I just want to emphasize that NOAA has not
2 funded this life history work.

3
4 We would love to get a grant, and we're trying to, but these
5 efforts are basically us dedicating our unpaid time, our personal
6 funds, and then I did get a small grant from the University of
7 South Carolina, the Office of Research, to actually pay for the
8 radiocarbon analysis for the age validation work, and so that's
9 what is going on with queen snapper.

10
11 It's not yet on the assessment schedule, but, from the work that
12 we have been doing, in collaboration with Kate at NMFS, and what
13 is contained in her thesis that she just defended, and she also
14 included data from the Gulf of Mexico population, just for
15 comparison, and then, here, we have it kind of lined up with what
16 Stevens had synthesized from the literature, and this is just to
17 emphasize, again, how our efforts, although right now, from my
18 team, they are not funded by NOAA, what we've been able to achieve
19 without that federal funding, and hopefully we could achieve even
20 more.

21
22 For example, we really, really need to get at answering these
23 maturity blanks here, and that's definitely going to take some
24 very targeted, specific funding that we have designed, and we have
25 proposed, and we're trying to get funding for, but, anyway, that's
26 going to take some more work, but, as you can see, maximum age --
27 Previously, there was a maximum age estimate for this species of
28 I think it was eight years, based on some length frequency work,
29 but we have now validated maximum age for the Caribbean at forty-
30 five.

31
32 Our growth parameter, our L_{∞} , for the Caribbean, is 994,
33 compared to what Stevens synthesized from the literature, and one
34 of the big things that we've found that's different, and it's
35 pretty consistent between Puerto Rico and the Gulf of Mexico, is
36 that the growth rate for this species is an order of magnitude
37 less than was previously understood through length frequency
38 analysis, and that's a really big finding and something that,
39 again, shows that using data from other areas, or synthesized from
40 the literature, for stock assessment parameters, is not
41 necessarily ideal. Just to summarize for you, we have our --

42
43 **MARCOS HANKE:** Virginia, excuse me. We need to speed up, because
44 the --

45
46 **VIRGINIA SHERVETTE:** I am almost done. I was just going to finish
47 with this, which is just our acknowledgements, and I will just
48 leave this slide up, so that everybody can read it, in case you

1 have questions.

2
3 **MARCOS HANKE:** Are there questions from any council member about
4 the presentation, and then I have a comment after. Julian.

5
6 **JULIAN MAGRAS:** (Mr. Magras's comment is not audible on the
7 recording.)

8
9 **VIRGINIA SHERVETTE:** I am sorry to interrupt, but I can't hear.

10
11 **JULIAN MAGRAS:** More than willing to help you in those areas, and
12 just send me the quantity of large and small fish that you need,
13 and when you need them for, and I will start right away to work on
14 collecting those species for you, so we can finish the assessment.

15
16 I know how important it is, and me and my team is always willing
17 to help and get you all that you need, but, again, thank you for
18 all the hard work that you've been doing in the Caribbean, and I
19 look forward to continue working with you. Thank you.

20
21 **VIRGINIA SHERVETTE:** Thank you, Julian, and I really cannot
22 emphasize enough how collaborative this effort is and how none of
23 this could be possible without people like Julian and other fishers
24 that have helped us out tremendously and all of our partners
25 throughout the Caribbean who just -- We couldn't do this without
26 you, and it's just incredible. It's an incredible group of people
27 to work with, and so thank you to everybody, and thank you, Julian.
28 Thank you for stating that on the record, but you are a named
29 collaborator on our proposals and everything too, and we just can't
30 thank you enough.

31
32 **MARCOS HANKE:** Thank you, Virginia. I show my full support, and
33 I was able to collaborate and see the amount of time that you put
34 to create the bridges for assistance, and you put a lot of time to
35 be effective in the Caribbean, and that's something that I never
36 saw before, and just keep working hard, and we hope we can keep
37 working to get the best data available for managing. Thank you
38 very much.

39
40 **MIGUEL ROLON:** Marcos, before the break, you heard that Virginia
41 identified the need for some studies, the need to continue,
42 especially for the silk snapper and others. The question here is
43 whether the council would like to continue that work, and we need
44 to go to the bidding process, but, as you know, when you go above
45 \$5,000 process, you need to have a bidding process for any study
46 that you want to make.

47
48 Dr. Virginia Shervette came to the council with a proposal, and

1 you approved it, and that's what she is working on, and it was
2 recommended by the St. Thomas fishers, and so the question to you
3 is do you want to continue this, and can we do it as a follow-up
4 in the future, and where we can identify the monies, and then we
5 can continue the work with her. I believe that the SSC has talked,
6 several times, about the need for especially biological parameters
7 for the species in the management units, and Dr. Shervette's study,
8 to me, is one of the best ever done, as we have seen here.

9
10 The other thing is that the Southeast Fisheries Science Center
11 cannot continue doing basic studies, and so we need to find other
12 avenues to get these basic studies, and they will continue work,
13 and they will bless the best available information for the SSC to
14 consider, but this is an opportunity here for you all to take a
15 five-minute break to see what is the wish of the council. If you
16 want to continue this, if that is yes, then Graciela and I have to
17 talk with Virginia and put together kind of a schedule of how this
18 can be done and identify those species that are a top priority for
19 the council to get the biological parameters and the information
20 that we need.

21
22 **MARCOS HANKE:** Tony.

23
24 **TONY BLANCHARD:** I think the council should support that. I think
25 the council should support Virginia Shervette with these studies,
26 because of the good job that I think she's doing, and, basically,
27 the results that we're getting.

28
29 **MARCOS HANKE:** Would any other council member like to talk?
30 Carlos.

31
32 **CARLOS FARCHETTE:** I agree with Tony, and I also believe that life
33 history information is very important for the SSC to have.

34
35 **MARCOS HANKE:** Go ahead, Miguel.

36
37 **MIGUEL ROLON:** In that case, we would appreciate to have a motion
38 by the council for the staff to continue the work with Dr.
39 Shervette and identify funding and resources for these studies.
40 Remember that she can -- The council can provide seed money or
41 whatever to continue that study, but I would like to see that
42 motion, because this is directing the staff to work with Dr.
43 Shervette to continue the work she's doing for the council, as
44 opposed to having a proposal and then advertise the proposal and
45 see who can do it.

46
47 **MARCOS HANKE:** Okay. Carlos, can you make the motion?
48

1 **CARLOS FARCHETTE:** Sure, but, since Tony is the one that started
2 it up, I don't know if Tony wants the privilege of having that
3 motion, and I will second it.
4
5 **TONY BLANCHARD:** Go ahead.
6
7 **CARLOS FARCHETTE:** The motion would be to have the council -- How
8 should I word this? That will work.
9
10 **MIGUEL ROLON:** The motion will be to instruct the staff to look
11 for alternatives to continue the work of Dr. Virginia Shervette
12 and identify the possible funding for those projects.
13
14 **CARLOS FARCHETTE:** So moved.
15
16 **TONY BLANCHARD:** Second.
17
18 **MARCOS HANKE:** Is there discussion? Would anybody like to make a
19 comment? Hearing none, let's go to a vote. Carlos.
20
21 **CARLOS FARCHETTE:** Yes.
22
23 **JEAN-PIERRE ORIOL:** Yes.
24
25 **DAMARIS DELGADO:** Yes.
26
27 **TONY BLANCHARD:** Yes.
28
29 **JACK MCGOVERN:** Yes.
30
31 **MARCOS HANKE:** Yes. All in favor.
32
33 **VANESSA RAMIREZ:** Yes.
34
35 **MARCOS HANKE:** I am informing the group that, before the break, we
36 have two presentations that we are going to move to tomorrow, which
37 is the timing for the red hind closure and the discussion of
38 sargassum issues, and that is going to be moved to tomorrow, due
39 to the schedule problems that we have today and the technical
40 problems that we had earlier in the meeting. We're going to have
41 a five-minute break.
42
43 **MIGUEL ROLON:** For the record, in the previous vote, Vanessa
44 Ramirez voted yes.
45
46 **MARCOS HANKE:** I am sorry that I didn't state it, but I heard her
47 say yes. Thank you for the clarification. Maria.
48

1 **MARIA LOPEZ:** I will be happy to give the buoy gear presentation
2 tomorrow, and then you can leave the discussion of the sargassum
3 for today, given that we have resources from NMFS that are already
4 scheduled for this afternoon, if that's possible.
5

6 **MARCOS HANKE:** Yes, we can do that. We have to stop at 4:30, and
7 we have a hard stop at 4:30, and you are saying that -- One second.
8 After the break, a five-minute break now, and then we're going to
9 do the sargassum after the break. I will see you guys in five
10 minutes.
11

12 (Whereupon a brief recess was taken.)
13

14 **MARCOS HANKE:** We are starting the meeting. Thank you very much,
15 everyone. The next presentation is sargassum EFH.
16

17 **DISCUSSION OF SARGASSUM ISSUES AND ROLE AS ESSENTIAL FISH**
18 **HABITAT**
19

20 **DAVID DALE:** Thank you, Mr. Chair, council members, and staff, for
21 having me present to you today. My name is David Dale, and I am
22 the Southeast Region's Essential Fish Habitat Coordinator. I work
23 in the Habitat Conservation Division, and so, today, I would like
24 to briefly introduce the division, since we don't get before the
25 fishery management councils as often as the Sustainable Fisheries
26 Division and the Protected Resources Division, and then we'll talk
27 about the role of sargassum as essential fish habitat and what
28 that means, and we'll have some time for questions in the end.
29

30 Unlike the Sustainable Fisheries Division and Protected Resources
31 Divisions at the National Marine Fisheries Service Southeast
32 Region, which most divisions have most of its workforce located at
33 the Regional Office in St. Petersburg, the Habitat Conservation
34 Division is located across eight locations scattered throughout
35 the Southeast Region's area of responsibility.
36

37 Branches within the Habitat Conservation Division are aligned with
38 the areas of responsibility of the three fishery management
39 councils in the Southeast. We have a Gulf of Mexico branch, and
40 then the South Atlantic and the Caribbean branch are both managed
41 jointly out of Charleston.
42

43 Ideally, we would like to have staff within about four hours of
44 driving distance, to directly interact with our customers, who are
45 mostly federal regulatory agencies, and the regulated public, and
46 we currently have a few gaps in that staffing arrangement, which
47 includes south Texas, the Florida Panhandle, and northeast
48 Florida.

1
2 For the Caribbean, we have staff located in Puerto Rico, and, once
3 the pandemic situation is over, we hope to have staff located in
4 the Virgin Islands.

5
6 Here, you see our current organizational chart, combining full-
7 time and contract positions, and we currently have twenty-three
8 scientific and technical staff and three administrative positions,
9 shown in the locations across the bottom. Virginia Fay, or Ginny
10 Fay, is currently the Acting Deputy Regional Administrator, and
11 she is backfilling Andy Strelcheck's old position as Deputy, and
12 we're looking forward to having her back when a permanent fill is
13 made for the Deputy, hopefully early next year.

14
15 In the meantime, we've got Pace Wilbur is currently acting as our
16 Assistant Regional Administrator for the Habitat Conservation
17 Division, and Jocelyn Karazsia is acting as the chief of the
18 Atlantic Branch. As far as our staff in the Caribbean, many of
19 you are sure to know Jose Rivera, and I see that he's been on the
20 call, and we have recently hired Dinorah Chacin, who will work
21 with the Coral Reef Conservation Program in the U.S. Caribbean,
22 and, again, when the pandemic is over, we will have her located in
23 St. Croix, and I know that she is on the call today as well.

24
25 What does the Habitat Conservation do? We kind of focus our
26 efforts in three main areas of habitat conservation, habitat
27 restoration, and partnership. Habitat Conservation, this is where
28 we provide consultation services, and our biggest customer is the
29 U.S. Army Corps of Engineers, both their regulatory and civil works
30 program. The regulatory program, they permit coastal development
31 projects, such as docks and piers and residential and commercial
32 development, under Section 404 of the Clean Water Act and Section
33 10 of the Rivers and Harbors Act.

34
35 The authorities we use to consult with them include the Fish and
36 Wildlife Coordination Act and our topic today, the Essential Fish
37 Habitat provisions of the Magnuson-Stevens Fishery Conservation
38 and Management Act.

39
40 The corps civil work program is also a major customer of ours, and
41 this is largely ports and navigation channels and flood control
42 and coastal protection projects. The primary authorities we use
43 there are NEPA, the National Environmental Policy Act, but also
44 Fish and Wildlife Coordination Act and, of course, the essential
45 fish habitat in the Magnuson-Stevens Act. Other customers in our
46 habitat conservation role include the U.S. Coast Guard and the
47 Bureau of Ocean Energy Management, and those two entities regulate
48 navigation interests and the oil and gas sector.

1
2 Another one of our primary focus areas is habitat restoration, and
3 a lot of effort is put into the Coastal Wetlands Planning,
4 Protection, and Restoration Act, which combats wetland losses in
5 Louisiana, and so, if you recall, in our previous slide, our
6 Louisiana office has the largest staff, and that's largely because
7 of our efforts put forth there.

8
9 We also prioritize fish passage at dams, through the Federal Energy
10 Regulatory Commission's relicensing of hydropower facilities, and
11 that is done under the Federal Power Act. We put a lot of effort
12 there, because these relicensing opportunities come around about
13 only once every twenty to fifty years in a project's timeframe,
14 and so it's important for us to act when we have the opportunity
15 to restore fish passage across these barriers, and then our final
16 focus area is habitat partnerships. We focus on those partnerships
17 with habitat conservation and restoration goals that provide the
18 proverbial biggest bang for the buck, since we generally cannot
19 bring any funds to the table.

20
21 Examples of these types of programs in the Caribbean include the
22 San Juan Bay Estuary Program, which is run by the Environmental
23 Protection Agency, and, of course, NOAA's Coral Reef Conservation
24 Program, and so that's just a little rundown of the Habitat
25 Conservation Division, but, today, I really want to focus our
26 discussion on essential fish habitat and sargassum and what that
27 means.

28
29 Congress gave us the following definition of essential fish habitat
30 in the Magnuson-Stevens Fishery Conservation and Management Act
31 Amendment in 1996, and EFH means those waters and substrates
32 necessary to fish for spawning, breeding, feeding, or growth to
33 maturity, and you will hear those words several times today.

34
35 The EFH provisions also include requirements for the Secretary of
36 Commerce and the regional fishery management councils to identify
37 and describe EFH, the requirement for federal agencies to consult
38 with the Secretary regarding the effects of their programs and
39 activities on EFH, and for the National Marine Fisheries Service
40 and councils to minimize the adverse effects of fishing activities
41 on EFH.

42
43 Implementing regulations for essential fish habitat were first
44 published in 1998, and they were published as interim final rules,
45 because, with a new program, we knew we wouldn't get it right right
46 off the get-go, and final rules were published in 2002, after we
47 implemented the new programs for a couple of years.

1 The EFH regulations expand the statutory definition and provide
2 clarifying language for the terms "waters", "substrate",
3 "necessary", and "spawning, breeding, feeding, or growth to
4 maturity". For our discussion today, regarding sargassum in the
5 Caribbean, what definitions are going to be most relevant is the
6 definition of what habitat is, quote, unquote, necessary for
7 spawning, breeding, feeding, or growth to maturity of managed
8 species under the Magnuson Act.

9
10 The definition of "necessary", as shown on the previous slide,
11 means the habitat required to support sustainable fisheries and
12 the managed species contribution to a health ecosystem. The
13 regulation introduced that term, which is also defined here, and
14 the term "spawning, feeding, breeding, and growth to maturity"
15 provided in the statute includes all major life stage of each
16 managed species.

17
18 The statute and the EFH regulations tell us what EFH is and how
19 we, both National Marine Fisheries Service and the councils, are
20 to identify and describe EFH, and this was all done in the late
21 1990s, following passage of the Sustainable Fishery Act Amendment
22 in 1996.

23
24 The Caribbean Council originally described EFH in 1998, but, as a
25 result of a lawsuit, which was the American Oceans Campaign versus
26 Secretary Daley, NOAA Fisheries was required to revisit all of our
27 EFH designations made by many of the fishery management councils,
28 including the Caribbean Council, and we also had to expand our
29 NEPA analysis regarding the effects of fishing on EFH, and so, in
30 the early 2000s, we expanded our NEPA analysis to the environmental
31 impact statements, and so, in the Caribbean, that EIS was finalized
32 in 2004, and, as a result of a lawsuit, the amendment was separate
33 from a NEPA analysis, and, like I said, that was just a function
34 of the lawsuit, and so, since the early 2000s, we've been operating
35 under the EFH identifications and descriptions contained in the
36 2004 EIS and 2005 amendment.

37
38 Those designations were based on literature reviews, which created
39 a long series of life history-habitat association tables, which
40 described the habitat requirements of each major life stage
41 necessary for each fish managed under the council to spawn, breed,
42 feed, or grow to maturity, and essential fish habitat is defined
43 by the statute.

44
45 The EFH regulations require EFH information to be reviewed every
46 five years, which the Caribbean Council has done, and, when the
47 council's island-based fishery management plans were developed,
48 the EFH descriptions for species that were currently managed by

1 the council at that time were simply carried forward, and, for the
2 newly-added species that are going to be managed by the island-
3 based plans under the Magnuson Act, the same life history
4 association method was generally used to identify and describe EFH
5 for those species.

6
7 Also, I want to point out that highly migratory species, which is
8 managed by the National Marine Fisheries Service, on both the
9 Atlantic and the Pacific coasts, they have also identified and
10 described essential fish habitat, and those designations were
11 first made in 1999, and they were reviewed and revised both in
12 2009 and in 2017. However, those designations are primarily based
13 on presence data obtained from fishery-independent surveys and
14 research.

15
16 Here is the EFH identification and description for reef fish in
17 the 2005 amendment, and this is where sargassum was identified and
18 described. It is important to recognize that this description of
19 EFH was based on a literature review which created a series of
20 tables, and that series of tables identified the habitat necessary
21 for each major life stage of each species managed by the council,
22 and that's that definition of necessary for spawning, breeding,
23 feeding, or growth to maturity.

24
25 While the associations were made for each life stage and each
26 species, in the end, the council condensed the definition of EFH
27 into this single composite definition for the entire fishery
28 management unit, and you can see, in the definition, that sargassum
29 is referred to as drift algae occurring from mean water to 100
30 fathoms depth, and that's what is identified and described as EFH
31 for sargassum, and so this doesn't mean that sargassum is or was
32 EFH for all reef fish, and you need to dig back in the tables to
33 find the specific species and life history associations for drift
34 algae, which met the necessary definition for essential fish
35 habitat, were for early and late juvenile stages of greater
36 amberjack and almaco jack.

37
38 When we approved the island-based fishery management plans, they
39 provided a little bit more clarity, particularly for the newly-
40 added species. As I mentioned earlier, the existing essential
41 fish habitat identifications and descriptions were carried forward
42 from the 2005 amendment into the island-based fishery management
43 plans. However, where new species were added, the same methods of
44 identifying EFH were used, but individual descriptions were
45 provided for the species new to management under the Magnuson Act.

46
47 This is an example from the Puerto Rico plan, and it's the
48 description of essential fish habitat for gray triggerfish, and so

1 we see that sargassum has been identified as EFH for gray
2 triggerfish from the mean high water to the outer boundary of the
3 U.S. Caribbean EEZ, and that is habitats used by larvae, and that
4 it is also identified as EFH for later life stages, and that is
5 limited to mean high water out to 100 fathom depths.

6
7 Due to the data-poor nature of the Caribbean, a lot of our EFH
8 identification and descriptions are very similar, and, within the
9 island-based fishery management plans, you will see very similar
10 EFH descriptions, such as this for the gray triggerfish, for
11 dolphin and wahoo across all three island-based plans, and, also,
12 in Puerto Rico, sargassum is EFH here for gray triggerfish and
13 also for great barracuda, tripletail, pompano dolphin, little
14 tunny, blackfin tuna, as well as king and cero mackerel.

15
16 Sargassum is EFH in the Caribbean, and I know there's a lot of
17 concern and confusion about what that exactly means, and so being
18 identified and described as EFH does not prohibit harvest. In the
19 Southeast, and up the Atlantic coast, for example, oysters are
20 essential fish habitat for a variety of managed species under the
21 Magnuson Act, yet their harvest is allowed, and so simply being
22 identified and described as EFH does not prohibit harvest.

23
24 What it does do is trigger the consultation requirement that
25 federal agencies have to consult with the National Marine Fisheries
26 Service regarding their activities that they are either funding,
27 permitting, licensing, or undertaking which may adversely affect
28 EFH, as identified and described by the National Marine Fisheries
29 Service and the councils.

30
31 Adverse effect is further defined in our EFH regulation, and it is
32 defined as any impact that reduces the quantity and/or quality of
33 EFH, and so it's basically a very low threshold that kind of
34 triggers the consultation requirement with the National Marine
35 Fisheries Service.

36
37 What is an EFH consultation? Basically, an EFH consultation
38 consists of a federal agency sending NOAA Fisheries, the Habitat
39 Conservation Division, an EFH assessment which describes their
40 proposed activities, the effect of those activities on EFH and
41 managed species, what the conclusions of those effects are, and if
42 they are proposing any mitigating factors for the effects.

43
44 NMFS is required to provide recommendations to protect and conserve
45 essential fish habitat. Councils may also provide comments, if
46 they choose. In the Southeast, we most frequently see that done
47 by the South Atlantic Fishery Management Council, who have issued
48 a series of habitat policy statements, and so, when a project does

1 not align, or conform, with their habitat policy statement, it is
2 generally pretty easy for the council to react to that and send a
3 letter to that federal agency to that effect, because EFH
4 consultations, and the permitting activities which trigger
5 consultations, don't generally align with the council meetings and
6 the council timeframes.

7
8 When NOAA Fisheries, or National Marine Fisheries Service, or a
9 council submit EFH conservation recommendations, the federal
10 agency is required to respond back to NOAA Fisheries, or the
11 council, detailing how they are incorporating our recommendations
12 or not, and a federal agency is not bound by our recommendations.
13 They are, however, required to indicate how they are addressing
14 them in their administrative record, and so, again, they do not
15 have to adopt our recommendations, but they just simply have to
16 write back to us and tell us how they are or are not incorporating
17 our comments.

18
19 We are allowed to provide EFH conservation recommendations to a
20 state or territorial agency. However, states and territories are
21 not required to initiate consultation, nor are they required to
22 respond back to NOAA Fisheries or the council regarding our EFH
23 conservation recommendation, and so what really triggers a
24 consultation is it has to be a federal action, a federal agency
25 funding, permitting, licensing, or undertaking an action, and that
26 activity may result in an adverse effect on EFH.

27
28 When we're talking about sargassum in the Caribbean, an EFH
29 consultation would be triggered if there was a federal activity
30 and it's occurring in that zone that's below the mean high water
31 line, and we, the Habitat Conservation Division, would then assess
32 the value of the EFH being affected and determine what appropriate
33 conservation recommendations may be.

34
35 If sargassum is on the beach, above mean high water, we would not
36 need to consult on that activity, and it would fall outside the
37 defined area of EFH. If it's on the beach below mean high water,
38 while technically requiring consultation, we would consider the
39 value of the EFH at that location to be so low, and not meeting
40 the definitions of being necessary to the spawning, feeding,
41 breeding, or growth to maturity of fish managed under the Magnuson-
42 Stevens Act that EFH conservation recommendations would not be
43 required. Now, beached sargassum is not providing those functions
44 to our managed species.

45
46 If we're talking about sargassum that's near-shore, say around a
47 water intake structure, the value would likely be assessed a little
48 higher, that it may be providing some of those necessary functions

1 necessary for the spawning, breeding, feeding, or growth to
2 maturity.

3
4 Whether that would trigger us to EFH conservation recommendations
5 would depend upon the nature of the activity, and, of course, as
6 we move further offshore, the value of sargassum to managed fish
7 becomes much higher, and so we would give much more scrutiny to
8 any activities that may affect its value of EFH in those instances.

9
10 This is my last slide, and a few other things that I thought we
11 should mention, that need to be considered in the overall
12 conversation regarding sargassum, is you are probably aware that
13 the South Atlantic Fishery Management Council has an improved
14 fishery management plan for sargassum. That plan did limit harvest
15 to 5,000 pounds wet weight, which is allowed off of North Carolina,
16 but any harvest south of North Carolina/South Carolina is
17 prohibited.

18
19 The prohibition, harvest prohibition, is not because it is
20 identified and described as EFH, but because sargassum was
21 identified as a species qualifying for management under the
22 Magnuson-Stevens Act which requires conservation and management
23 measures.

24
25 As a managed species, it has its own EFH identified and described,
26 and I also mentioned here that, lately, we've seen some folks
27 exploring sargassum as a biofuel, and it's related to some funding
28 offered by the U.S. Department of Energy, and so we are starting
29 to see some proposals circulate around about propagating and
30 potentially harvesting sargassum, and so we're having
31 conversations with those folks, bringing up what is happening,
32 what triggered the South Atlantic Fishery Management Council to
33 have a sargassum plan, and so not a whole lot has come from that
34 just yet, but we are keeping an eye on these proposals.

35
36 We have also been approached by some researchers who are interested
37 in trying to figure out at what point does sargassum no longer
38 serve its function as EFH, and maybe it should be considered a
39 harmful algal bloom, and we've seen some draft proposals for that
40 type of research, but I really haven't seen anything submitted for
41 funding, but that's not to say that it's not happening out there.

42
43 Finally, and it was kind of mentioned before, in some of the
44 earlier discussions, and, if we're talking about removing
45 sargassum from the ocean, there are some Endangered Species Act
46 and some bycatch issues that I can't specifically address, but we
47 do know that sea turtles and managed species, such as juvenile
48 dolphin and marlin and other pelagics can also be found in

1 sargassum, and they could be captured by certain harvest methods.
2
3 I just wanted to bring those things up as points that need to be
4 considered as this discussion continues, and so, with that, I am
5 done, and I am willing to entertain any questions that you may
6 have.

7
8 **MARCOS HANKE:** Thank you very much for your presentation, and does
9 any member from the council -- Tony Blanchard.

10
11 **TONY BLANCHARD:** I've got a question. Can you tell me when
12 sargassum is essential fish habitat and when it is not? Is that
13 by how close it is to shore or when it gets on the shore?

14
15 **DAVID DALE:** If I heard the question correctly, I think I can
16 answer it by responding, and so we are -- National Marine Fisheries
17 Service and the councils are required to identify what constitutes
18 EFH and where EFH occurs, what the geographic range is, and so the
19 Caribbean Council has taken the approach that sargassum is
20 identified and described as EFH from mean high water out to the
21 edge of the EEZ, and that is for those eggs and larval life stages,
22 and it doesn't extend out to the EEZ, but out to 100 fathoms for
23 later life stages.

24
25 Within that geographic range, it would trigger an EFH consultation,
26 but, in triggering that EFH consultation, the National Marine
27 Fisheries Service Habitat Conservation Division, while conducting
28 that consultation, would assess the value of the habitat in the
29 landscape, or the seascape, in determining what appropriate EFH
30 conservation recommendations would be.

31
32 If it's onshore, we are not likely to issue any conservation
33 recommendations, because it has essentially lost all its EFH value
34 to managed species, but, as it's offshore, further offshore, it
35 has much more value and is serving those statutory functions deemed
36 necessary for spawning, feeding, breeding, and growth to maturity.

37
38 **MARCOS HANKE:** Thank you for your answer. Just to make clear, in
39 terms of when you refer to high water mean, we are talking about
40 basically when the sargassum is suspended, even if it's on the
41 shoreline, from that point on, just to make clear, because I am
42 not really understanding the term you used there of the high water
43 mean.

44
45 **DAVID DALE:** All right, and so I missed part of that. I got kicked
46 offline for a second.

47
48 **MARCOS HANKE:** When you refer to high water mean, basically it's

1 the highest of the tides from the shoreline, and this is what I am
2 understanding, and, if the sargassum is suspended on the shoreline,
3 but not on the shore, it's considered as part of the EFH scenario,
4 and that is correct? I am understanding correct? Is there another
5 way to understand what you are saying?
6

7 **DAVID DALE:** It would qualify as essential fish habitat, but, to
8 trigger a consultation, we would need that federal agency nexus,
9 and I'm not exactly sure what that would be, and my guess would be
10 something like maybe if the NOAA Marine Debris program was funding
11 something, or if the Department of the Interior, along a national
12 park or a national seashore, was trying to do something, and so
13 that provides that federal nexus. Otherwise, if it's not a federal
14 agency undertaking the activity, a consultation is not required.
15

16 **MARCOS HANKE:** Thank you very much. I was just rephrasing to have
17 a full clarity on what you explained. Thank you so much. Would
18 anybody else like to make a question? Maria.
19

20 **MARIA LOPEZ:** Thank you. Thank you, David, for your presentation
21 and for clarifying the role of sargassum as EFH for the council.
22 I just want to remind people here that each one of the territories
23 have their own protocols for their processes for determining
24 removal of sargassum and for attending any situations that are
25 present, for example with sea turtles or other species, and the
26 role of the sargassum on the beach and the disposal of the
27 sargassum that is removed from the beach, as either waste or
28 something else, and so I would recommend everyone that has
29 additional questions to consult with their state partners to see
30 what are those protocols or processes that they have. Thanks.
31

32 **MARCOS HANKE:** Thank you, Maria. Would anybody else from the
33 council, from the room or from the online group -- Is there any
34 raised hands on the virtual participants? We are going to pass
35 now to the public comment period, and we're going to have the
36 presentation from the Southeast Fisheries Science Center tomorrow,
37 and it will be the first presentation in the morning, and the
38 follow-up presentations from that will be behind, and, for now, we
39 are going to go to the public comment period, and we have a
40 participant that will address us.
41

42 **PUBLIC COMMENT**

43

44 **CINDY GRACE-MCCASKEY:** Thank you, everyone. Thanks for having us
45 here. My name is Cindy Grace-McCaskey, and I'm an anthropologist
46 from East Carolina University. I have been doing work in the
47 Virgin Islands for more than ten years now, mostly focusing on St.
48 Croix, and, most recently, before COVID, I may have reached out to

1 some of you and conducted interviews, collecting social networks
2 data, and, now that COVID -- Now that we're traveling again, we'll
3 be revisiting some of that data in the spring and moving forward
4 with that project.

5
6 The real reason I'm here is to introduce one of my PhD students,
7 Anya Shosterum, and we are -- As I've said, we're from ECU, and
8 the PhD program is an integrated coastal sciences program, and she
9 has to do a specialization in both social sciences as well as a
10 natural science, and so we are in the process of defining, more
11 specifically, her research questions, and so she will tell you a
12 little bit about what her interests are, and, really, we're just
13 here to introduce ourselves and complete a follow-up with some of
14 you as we clarify the direction of her research. Anya.

15
16 **ANYA SHOSTERUM:** Good afternoon, everyone. My name is Anya
17 Shosterum. As Cindy mentioned, I am doing my PhD in the Integrated
18 Coastal Sciences Program at East Carolina, and my background is in
19 interdisciplinary science, and I did my master's actually working
20 with the Pacific Fisheries Management Council, and I am really
21 interested in being engaged in the process of ecosystem-based
22 fisheries management, as you are developing it here in the U.S.
23 Virgin Islands, and I would really like to make my dissertation
24 work somewhat actionable and useful for this council, in particular
25 continuing some of the connections and work that Cindy has done in
26 St. Croix.

27
28 I work in social ecological systems science, primarily, and I work
29 in ecology, as well as utilizing the range of social science tools,
30 and so I hope that, by attending this meeting, I'm hearing some
31 more of the projects, and I can find a place to put some of my
32 expertise and continue to fit it in over the next couple of years,
33 and so I appreciate the time, and it's great to be here.

34
35 **CINDY GRACE-MCCASKEY:** Also, after the meeting, we are heading to
36 St. Croix, me just for a few days, and Anya will be staying on,
37 but we're hoping, for those of you who are based on St. Croix, we
38 hope to sit down and connect with you more one-on-one and try to
39 help further define her work, and that's all. Thank you.

40
41 **MARCOS HANKE:** Thank you. Let's see if there is any questions
42 from council members. Do you know Carlos?

43
44 **CINDY GRACE-MCCASKEY:** Yes, I am still in touch with Carlos and
45 some of the fishers, and Miguel also has offered to support Anya
46 with some funding, and so we're excited about that, and, if anyone
47 has ideas for contacts, and it's been a few years since I have
48 been there, and so it's always good to about new people to get in

1 touch with as well.

2
3 **MIGUEL ROLON:** (Mr. Rolon's comment is not audible on the
4 recording.)

5
6 **CINDY GRACE-MCCASKEY:** Thank you very much.

7
8 **MARCOS HANKE:** Thank you very much. Miguel, do you have anything
9 else to address?

10
11 **MIGUEL ROLON:** No, and the reason that we are interested in the
12 work that Anya is proposing is because the council has identified,
13 for many years, that we need to have socioeconomics and
14 socioecology from Puerto Rico, St. Croix, and St. Thomas/St. John,
15 and this is the first step to start gathering that information,
16 and I hope that other scientists will have interest in working in
17 Puerto Rico, St. Thomas/St. John areas, so we will be able to
18 collect this information, similar to the information that Graciela
19 mentioned this morning, or this afternoon, that we need to collect
20 for identifying the gear used in the U.S. Caribbean, Puerto Rico
21 and the U.S. Virgin Islands. Thank you, Mr. Chairman.

22
23 **MARCOS HANKE:** No other questions? Then we are ready to close
24 this part of the meeting. We're going to close the meeting now.
25 Thank you so much, and we'll see you guys tomorrow at the published
26 time, at 9:00.

27
28 (Whereupon, the meeting recessed on December 7, 2021.)

29
30 - - -

31
32 DECEMBER 8, 2021

33
34 WEDNESDAY MORNING SESSION

35
36 - - -

37
38 The Caribbean Fishery Management Council reconvened on Wednesday
39 morning, December 8, 2021, and was called to order at 9:00 o'clock
40 a.m. by Chairman Marcos Hanke.

41
42 **MARCOS HANKE:** Good morning, everyone. We are about to start the
43 meeting. It's 9:02 a.m. on December 8, 2021. Please take your
44 seats, and thank you very much for everybody that is attending
45 virtually. The first presentation today, we are going to start
46 with some presentations that -- Yes.

47
48 **GRACIELA GARCIA-MOLINER:** (Dr. Garcia-Moliner's comment is not

1 audible on the recording.

2
3 **MARCOS HANKE:** Okay. We have some housekeeping information that
4 Graciela is going to share with the group.

5
6 **GRACIELA GARCIA-MOLINER:** If you are having a hard time listening
7 to us, or to whoever is speaking, please use your headsets. The
8 people in the back, they can pick it up by the translation booth.
9 Make sure that, when you are here at the table, you have your
10 speakers turned off. All the computers have to have their speakers
11 turned off, and, if you have a microphone, then you can turn it on
12 when you are going to ask a question, so that the people who are
13 listening via Zoom can hear you, and make sure that you also turn
14 on the microphone that is on the table, because that's the one
15 that is actually recording.

16
17 When you are speaking, you have to turn this one on, and Channel
18 1 is for translation, and Channel 2 is the one that is around the
19 table, and so thank you very much, Mr. Chair.

20
21 **MARCOS HANKE:** Thank you, Graciela. We are going to start with
22 the roll call, starting with Graciela.

23
24 **GRACIELA GARCIA-MOLINER:** Graciela Garcia-Moliner, council staff.

25
26 **MARIA LOPEZ:** Maria Lopez, NOAA Fisheries.

27
28 **CARLOS FARCHETTE:** Carlos Farchette, council member, St. Croix
29 District.

30
31 **JEAN-PIERRE ORIOL:** Good morning. Jean-Pierre Oriol, Commissioner
32 of Department of Planning and Natural Resources, USVI.

33
34 **TONY BLANCHARD:** Good morning. Tony Blanchard, Vice Chair, St.
35 Thomas District.

36
37 **MARCOS HANKE:** Good morning. Marcos Hanke, Chair.

38
39 **JACK MCGOVERN:** Good morning. Jack McGovern, NOAA Fisheries.

40
41 **KEVIN MCCARTHY:** Good morning. Kevin McCarthy, Southeast Fisheries
42 Science Center.

43
44 **CHRISTINA OLAN:** Good morning. Christina Olan, council staff.

45
46 **MICHELLE DUVAL:** Good morning. Michelle Duval, council contractor.

47
48 **SENNAI HABTES:** Good morning. Sennai Habtes, DPNR, Division of

1 Fish and Wildlife and EBFM TAP Chair.

2
3 **ALIDA ORTIZ:** Good morning. Alida Ortiz, Outreach and Education
4 Advisory Panel Chair.

5
6 **NELSON CRESPO:** Good morning, everyone. Nelson Crespo, DAP Chair,
7 Puerto Rico.

8
9 **RICHARD APPELDOORN:** Rich Appeldoorn, SSC Chair.

10
11 **MIGUEL BORGES:** Good morning. Miguel Borges, NOAA Office of Law
12 Enforcement.

13
14 **HOWARD FORBES:** Good morning. Howard Forbes, DPNR Enforcement.

15
16 **NICOLE ANGELI:** Good morning. Nicole Angeli, Director of Division
17 of Fish and Wildlife, Department of Planning and Natural Resources,
18 USVI.

19
20 **MICHELLE SCHARER:** Buenos dias. Michelle Scharer, SSC.

21
22 **ROBERTO SILVA:** Good morning. Roberto Silva, Puerto Rico.

23
24 **WILSON SANTIAGO:** Good morning. Wilson Santiago, Puerto Rico
25 liaison officer.

26
27 **ANYA SHOSTERUM:** Good morning. Anya Shosterum, East Carolina
28 University.

29
30 **JEANNETTE RAMOS:** Good morning. Jeanette Ramos-Garcia, Puerto
31 Rico Sea Grant Program.

32
33 **MARCOS HANKE:** That's all for now. Thank you very much, and we
34 will be recognizing other people as they arrive. We will start
35 the presentations with the Southeast Fisheries Science Center
36 Update.

37
38 **SOUTHEAST FISHERIES SCIENCE CENTER UPDATE**
39

40 **KEVIN MCCARTHY:** Thank you, Marcos. Thank you very much for
41 allowing me some time to speak at the meeting. Good morning,
42 buenos dias, bonjour, and those are all the languages that I've
43 got, and it's very limited what I do have, and so let's get started.

44
45 My name is Kevin McCarthy, and I am the Branch Chief of the newly-
46 created -- Now we've got three mics. Okay. Perfect. I'm the
47 Branch Chief of the newly-created -- I feel like I'm being
48 interviewed for something really important, but, anyway, I'm the

1 Branch Chief, as I have said three times now, of the newly-created
2 Caribbean Fisheries Branch at the Southeast Fisheries Science
3 Center.

4
5 Joining me in the presentation today -- We've got a lot to cover,
6 and Adyan Rios and Rachel Eckley are both going to join me in this
7 presentation, and so they're here listed as presenters. Now, I am
8 going to cover, as I said, a lot of ground, a lot of projects going
9 on at the Science Center that are Caribbean-based, and it is by no
10 means a comprehensive list, and it's primarily the work that our
11 branch is doing, the Caribbean Fisheries Branch.

12
13 We'll mention a couple of other folks, but, for example, I don't
14 have a bunch of information on what the social science research
15 group is doing, although they're doing a lot of work down here,
16 and a number of folks are running surveys, and I won't be talking
17 much about those, but, if we want -- If the council would like to
18 hear about that work, we could certainly arrange for those folks
19 to present information in the future.

20
21 What I will be talking about, or I should say my co-presenters
22 will be talking about, are the Caribbean projects inventory, as
23 noted in the Federal Register, the species selection for assessment
24 process that we have got, and a SEDAR 80 update, and those will
25 all be discussed by Rachel and Adyan.

26
27 The theme that you're going to see, I think, throughout this is
28 that what we're trying to do, now that we've got a Caribbean-
29 centric branch, is to make data-driven decisions, and so I think
30 you'll see that over and over again.

31
32 As we all know, we're managing fisheries under the Magnuson-Stevens
33 Act, and so, within that world, what kinds of data do we need?
34 You have heard Virginia Shervette talk about this a little bit
35 yesterday, in terms of the life history information, but we also
36 need landings, also sometimes called take, and so that's commercial
37 landings and recreational landings. I am seeing that Julie Neer
38 says that she has no sound. Does everybody else out there have
39 sound? I am seeing that others have sound, and so let's keep
40 going. Julie, it may be something on your end.

41
42 Anyway, we need commercial landings, and we need recreational
43 landings, and we also need dead discards, if we want to get total
44 take. Now, dead discards are a tough thing to get, not just in
45 the Caribbean, but everywhere, and so we usually have a better
46 handle on commercial and recreational landings, although that also
47 can be a challenge. Again, the Caribbean doesn't have problems
48 that other areas don't have, and so one of the things that we're

1 trying to do, in the Caribbean Branch, is to take the lessons
2 learned from other regions and apply them down here and come up
3 with our own solutions, because we do have a unique situation down
4 here, and so let's take what we can get from other places and apply
5 it down here and end up with a better data process.

6
7 We also need size composition of the landings, and we need that by
8 sector, meaning recreational and commercial, and we need it by
9 gear. Different gears, as you all know, catch different sizes of
10 animals, and so we need to take that into account, and that can be
11 a challenge, and this is also a time series, and you need to
12 measure a lot of fish to do this well.

13
14 I won't dive too much into the life history, and Virginia covered
15 a lot of it yesterday, but we need to know some information about
16 reproduction and size and age and growth of the animals, and so
17 there is a lot of information there, and it turns out that, if you
18 don't have these life history parameters, when it comes to doing
19 a stock assessment, you're kind of dead in the water. You can't
20 do a lot without the life history. You can't do anything without
21 size composition, and you can't do much at all without the landings
22 or the take.

23
24 Now, where we've got a little bit of wiggle room is with this last
25 bullet, with index of abundance, and this is a catch per unit
26 effort series over time, and we didn't have one for lobster, when
27 we did the last lobster assessment. It's better if we've got one.
28 For SEDAR 80, queen triggerfish, you will see that we're developing
29 indices for that stock assessment, and so it's an important
30 component, and we would rather have it than not have it, but the
31 other three are absolutely critical. We have much of this
32 information for some managed species, but we have very little of
33 this information for many of the managed species.

34
35 What do we do? What are our first steps for getting at data?
36 Well, one of the things we're doing in the branch is to do a data
37 triage, and Adyan will talk more about this later, but, briefly,
38 what we're doing is, species-by-species, island-by-island, going
39 through and figuring out what data do we have that's specific to
40 that species, and it's a laborious, time-consuming process, and
41 we've done it in a very preliminary way, which has informed the
42 decisions for which species to run assessments on in 2023 and 2024.

43
44 We need to continue doing that, and we need to expand on it,
45 because we need to inform future years and which species to run an
46 assessment on. If we don't do something like this, and we go in
47 blind, we run the risk of putting up a species for stock assessment
48 that doesn't have even the minimum of information, and so we don't

1 want to set ourselves up for failure. Let's go in there with some
2 knowledge that we've got at least enough data to get started.

3
4 One of the other things we're doing is compiling a database of
5 federally-funded research, and so this will tell us the various
6 projects that have gone on in the past and what data are available
7 from them, and we're starting with the federally-funded stuff,
8 because it's easier to track down, but we're certainly not limited
9 to that, and Rachel will talk more about this later in this
10 presentation.

11
12 Another thing we're doing is trying to begin coordination among
13 the various folks who are doing life history work, and so we've
14 set up sort of this informal working group, led by Stephanie
15 Martinez-Rivera, and she is part of the Caribbean Fisheries Branch,
16 and she's just the coordinator, and she's trying to get people
17 together to discuss who is working on what, how can they help each
18 other, how can they maximize their limited resources to get the
19 most samples, the most data, the most out of their analyses as
20 possible.

21
22 After we run through that process, and we have found the data gaps,
23 what do we do now? Once we have identified the gaps, let's
24 prioritize those, and so what I see is sort of this three-tiered
25 system. We've got the top, and we've got species where we've got
26 enough data to do an assessment, and that's sort of our top level.

27
28 Then, below that, we probably have quite a few species where maybe
29 we're missing life history, or maybe we're missing an index of
30 abundance, or maybe we're missing some size composition data, and
31 so that, to me, should be a high-priority species to put research
32 dollars towards, so we can fill in those gaps and bring them up to
33 the highest tier, where we might be able to do an assessment, and,
34 below that, we're going to have a lot of species that have very
35 little information, and those are longer-term projects. We
36 shouldn't ignore them, but it's going to take longer to get the
37 information that we need to move them up to a higher tier, where
38 we can do a stock assessment.

39
40 Among the things that we can do are design new and expanded
41 surveys, and we're working on that, and you will see that in a
42 minute. Improve survey designs of existing surveys, and one of
43 the things that is going to be absolutely critical, and we've
44 already begun this on some projects, is collaborative research
45 with the fishers.

46
47 We don't need to reinvent a fleet of research vessels. We need to
48 work with the fishers to get out on the water and to work with

1 them collaboratively to get data collected, and, as I said, we
2 started some of that in both the Virgin Islands and in Puerto Rico,
3 and we need to do more of it. We need to maintain that database
4 of funded research, and we need to continue to coordinate among
5 life history researchers.

6
7 This is, again, a non-comprehensive list of the projects that are
8 going on through the Southeast Fisheries Science Center. If you
9 recall back to those kinds of data that we need for a stock
10 assessment, one of them was landings, and another was size
11 composition.

12
13 The way we get at that, or one of the ways we get at that anyway,
14 is through commercial port sampling, and that's been ongoing, as
15 many of you know, for a number of years in Puerto Rico. The
16 objective there is -- Because we don't have long-term funding for
17 that, the objective is let's build a statistically-robust survey
18 design. When we get the funding, we can apply those dollars to
19 that survey design and continue the sampling.

20
21 We've got -- Also, in Puerto Rico, DNER is trying to get started
22 with a recreational fisheries survey, and we're, at the Science
23 Center, providing some support for that, and it's absolutely DNER's
24 project, but we're providing some support, in terms of training
25 port sampling staff, and some technology transfer as well.

26
27 The Virgin Islands port sampling, this is just beginning, and it's
28 a very similar project to the one in Puerto Rico, where we've got
29 commercial and recreational fisheries sampling. We wanted to do
30 both, and we want to hit all sectors, and, again, we have recently
31 begun this, and we're probably a month or so into it, where you
32 will see, at the various landing sites, somebody with a clipboard
33 noting usage patterns. When are people coming into that dock,
34 when are people coming into that boat ramp, when are they leaving,
35 is it a high-use site, is it a low-use site, and, in the future,
36 they will begin with interviews for catch and effort, and so that's
37 just beginning.

38
39 I've also got a Fisheries Information System, also called FIS,
40 funded study, where we're looking to improve the efficiency of
41 sampling. We don't want people coming to the dock and taking two
42 hours for somebody to sample their catch. We want to have a very
43 efficient way of doing this and get it done in ten minutes, and
44 then people can get out of there, and so what we're going to use
45 is automation and machine learning, and so you will see people
46 with cameras.

47
48 They are not taking pictures of boats, and they're not taking

1 pictures of people, but they are taking pictures of fish, so that
2 it can automatically identify the species, through machine
3 learning, and get the size of the fish, and then they process the
4 next one, and so these surveys are all designed to collect landings
5 and size composition data. I am sure that I'm running late, and
6 so I will try and speed up.

7
8 Again, life history is critical, and we've got a CRP grant,
9 actually to Stephanie, to do shallow-water sampling, and there is
10 only enough money to collect the samples, and so we've got to get
11 some more money to actually process them. This is a part of the
12 Puerto Rico deepwater snapper sampling, and this is a project that
13 Virginia Shervette talked about yesterday, and she's been heavily
14 involved in this, along with Kate Overly and Andy David, who are
15 at the Science Center Panama City Lab.

16
17 Multiple funding sources went into this, and Virginia and Kate
18 both work on doing the laboratory work, and Virginia also brought
19 in some additional samples that she had collected through the
20 fishers in Puerto Rico, and I think, also, there may have been
21 some samples from elsewhere, maybe the Virgin Islands, or maybe
22 the Gulf of Mexico, but I know it was a big effort, and there was
23 lots of funding sources involved.

24
25 Again, I mentioned this working group to coordinate life history
26 researchers, and we also supported the DNER life history
27 laboratory, and we purchased some equipment and supplies, and that
28 was all happening during COVID.

29
30 I had mentioned abundance indices, and there are two of them that
31 are being developed for SEDAR 80, and one is using the commercial
32 fish logbook data, and this is a new effort, and we've tried doing
33 it in the past, but this is a much more comprehensive approach,
34 and then the reef fish oral census, the diver survey that Jay Grove
35 and others -- Jay Grove is at the Miami Lab, and he and others run
36 that survey. Those are both being used, that one for the first
37 time in a SEDAR, as I understand it.

38
39 I've got some money to do a lobster recruit survey, and, this one,
40 we're working cooperatively with Puerto Rico commercial fishers,
41 and, as funds become available, we will want to expand that survey
42 into the Virgin Islands.

43
44 The idea here is -- When I talk about "recruit" here, I mean
45 lobsters that are just below legal size, so that, the next time
46 they molt, they will be in the fishery, and so there's the direct
47 connection between that size of lobsters and what can be caught in
48 the future.

1
2 There's also a deepwater camera survey, and this is linked to the
3 work that Kate and Virginia and Andy have been doing on the west
4 coast of Puerto Rico, and so it's specifically designed to look at
5 the deepwater snapper fishery, and so that's an ongoing CRP-funded,
6 and so CRP is the Cooperative Research Program, funded work, and
7 so they're working with fishers, Puerto Rico fishers, on the west
8 coast.

9
10 We have also got gear selectivity studies, a number of them, and
11 this came out of a recommendation from the SEDAR -- The last
12 lobster SEDAR, the last assessment, SEDAR 57 I believe it was, and
13 so the idea here is what sizes of animals are being caught by the
14 fishery, and so that, of course, depends upon the gear. It depends
15 upon a lot of things, gear, where they're fishing, that sort of
16 thing, and it's an important input to assessment models, and so we
17 want to make sure that we get that right, and so there's a Virgin
18 Island trap study that the Science Center is running in partnership
19 with the Virgin Islands Division of Fish and Wildlife.

20
21 Part of that involves talking with fishers to understand the kinds
22 of traps that are being used, and I get it that there are a lot of
23 different designs, but we need to come to a handful of sort of
24 common designs that we can use as part of this study, and we've
25 also got a diver survey, in partnership with the University of the
26 Virgin Islands, and also the Park Service, and they are doing dives
27 in different islands. They are doing shallow dives as well as
28 deep dives, and the idea here is what do you see, what sizes of
29 animals do you see, in the traps versus what the divers see in the
30 water.

31
32 Puerto Rico, similarly, has a trap study, and that also involves
33 cooperation with fishers, and it's to get at the same idea of what
34 sizes of fish are being caught, or what sizes of lobster are being
35 caught, by the fishery.

36
37 We have a number of additional projects. We've got our strategic
38 planning workshop that we're going to do, and the first one is --
39 There will be several, and the first one is for the Science Center,
40 to get the Science Center's strategic plan together, and a future
41 one will involve the regional partners, and so you all at the
42 council, SERO, and then the regional scientists as well, and coming
43 out of this was this database of federally-funded projects, and
44 so, again, Rachel will talk about that in a moment.

45
46 We're also working with Puerto Rico DNER to automate their
47 correction factor calculations, as you all know, to get to the
48 official landings, and there's a correction factor that is applied,

1 and it's a very laborious process for DNER staff, and so we're
2 trying to automate that, and I won't go into all the steps there,
3 because I know I'm running late, and then Science Center staff has
4 also been involved with the quality assurance and quality control
5 of data collected in the SEAMAP-C video reef data, and so we're
6 not running that project, but we're involved in data improvements.

7
8 This is, again a non-comprehensive list of NOAA-funded Caribbean
9 research projects, and this is money that goes to outside
10 researchers, and these aren't folks who are in NOAA, and so this
11 is -- We just very quickly went through, and we looked at MARFIN,
12 and we looked at Saltonstall-Kennedy, which is the S-K, and
13 Cooperative Research Program, and, in the period from 2015 to 2020,
14 NOAA has put in about \$6.5 million to non-NOAA researchers for
15 U.S. Caribbean projections.

16
17 These have included a wide range of studies looking at life
18 history, genetics, survey design, aquaculture, spawning
19 aggregation work, and other things, and, if you look at the
20 researchers involved, you will see some names that you know, and
21 a number of these folks have received multiple awards of money,
22 and so NOAA is not just relying on the Caribbean Fisheries Branch,
23 but they are putting money out to researchers, some of whom are
24 local and some of whom are located elsewhere, but doing work in
25 the Caribbean, and it's not -- It's a non-trivial amount of money,
26 six-and-a-half million bucks. I wish they would give it to me,
27 and I think that's it for my part. I thank Adyan is up next. I
28 apologize to Adyan and Rachel for taking up all the time, but I
29 will pass it over to you.

30
31 **ADYAN RIOS:** My slides are in this poster style, and they're a
32 little busy, but I will walk you through them. This is an overview
33 of SEDAR 80 for queen triggerfish. In the map on the far-left,
34 the red pushpins represent the three island platform assessments,
35 and the gear images show the main gears on each island platform.

36
37 Moving over to the Center, you see the notes there, and this
38 assessment has a terminal 2019, and the lead analyst at the
39 Caribbean Fisheries Branch is Nancie Cummings. Moving down the
40 center panel, you see a summary of the data types being
41 incorporated, and I think it's exciting to point out that this
42 will be the first Caribbean Fisheries Branch assessment in the
43 region to have local life history data, as well as the first
44 assessment with exploring indices of abundance.

45
46 On the far-right, we have a summary of important dates ahead, and
47 the life history topical working group is up next, in January, and
48 the indices topical working group will be in February, where we'll

1 be reviewing both fishery-dependent and fishery-independent
2 indices. Near the end of February, we also have the fishing
3 behavior, selectivity, catchability working group, with the
4 assessment making it to the council in July of 2022.

5
6 Lastly, in the bottom-right, we have a nice conceptual cycle
7 representing the fisheries management process, and I will
8 highlight the top arrow, pointing to the top-right, which is where
9 we are, and we are incorporating the best available collected data
10 into the assessment to eventually arrive at catch targets grounded
11 in sound science.

12
13 The second of my four slides is about the Southeast Fisheries
14 Science Center's management history project, and this work was
15 initially funded by the Fisheries Information System program, and
16 we had an excellent team compiling Federal Register references and
17 translating each regulation into the database.

18
19 Moving to the center panel, the bulk of the current work is
20 processing the database, which involves designing and executing
21 logic for related management events and spot-checking the database
22 to improve the input validations of the data that goes into the
23 database.

24
25 The far-right represents the upcoming uses and users of the
26 dataset, with the goal of being able to filter the analysis-ready
27 dataset by species, sector, or region of interest, as well as to
28 automate outputs and tables and data for SEDARs and FMP amendments.

29
30 Next up, we have a workflow overview for developing CPUE indices
31 from the Caribbean commercial logbook data, and abundance data,
32 ideally, come from a statistically-designed fishery-independent
33 survey, but, in some situations, catch rates by fishermen can be
34 explored and analyzed to provide additional abundance measures as
35 well.

36
37 The top visual represents the tools we are using to go from the
38 logbook data that we have on the left to the indices of stock
39 abundance for SEDAR assessments on the right. In the bottom-left,
40 we have some notes about the challenges associated with this
41 process, including the fact that, because this is an island, gear,
42 and species-specific process, a lot of the past methods are of
43 limited utility when we look at the data for other species.

44
45 This process is also conducted with important considerations and
46 attention to the confidential nature of the data being used. In
47 exploring these data for SEDAR 80, we are also trying to build
48 this into a workflow, reorganizing and modernizing the process

1 with new tools and new skills we now have, and, on the far right,
2 you can see the result of this workflow, which includes easily-
3 reproducible methods, a project-oriented workflow with continuous
4 improvement, and an open data science tool. The data remain
5 confidential, but the analysis process becomes more transparent.

6
7 The last topic that I will talk about is the assessment
8 prioritization data triage, an overview of that process, and so
9 the Caribbean Fisheries Branch worked on this to help guide the
10 decision of species with higher likelihoods of having the data
11 needed for stock assessments that can result in science-based catch
12 limits that are required by the Magnuson-Stevens Act.

13
14 The MSA requires that we use the best scientific information
15 available, and the MSA also specifies that regional fishery
16 management councils are responsible for setting ACLs, through the
17 development of fishery management plans or plan amendments, and so
18 focusing here on the bottom-left.

19
20 For stocks that are assessed with -- For stocks that are assessed,
21 the stock assessment specifies the OFL, the upper limit that you
22 see in this chart in the bottom-left, and some stocks cannot be
23 assessed, because there is not enough information, and, for stocks
24 that are not assessed, the SSC typically reviews historical
25 landings, as has been done in the Caribbean, but the purpose of
26 the triage overview was to rank species and explore the data that
27 we have to identify, among those best available data, which of
28 those species stand out as candidates for stock assessment to
29 result in OFLs based on stock assessments.

30
31 We did so focusing on three important data categories of abundance,
32 biology, and catch, and so, in the center panel at the top, you
33 see that those are three of the very important inputs going into
34 a stock assessment.

35
36 "Abundance" means a measure, or relative index, of the number of
37 weight of fish in the stock, and this information comes from
38 important fishery-independent surveys or catch rates supported by
39 fishermen. "Biology" includes the information on fish growth rates
40 and natural mortality, and this information comes from important
41 analyses of fish, including whole fish for size age information,
42 gonads for maturity, and otoliths for age. "Catch" reflects the
43 amount of fish removed from a stock by fishing, and these important
44 data come from logbooks as well as dockside monitoring.

45
46 Now I will tell you a little bit more about the results of the
47 triage, and specifically, I am going to show the summary visuals
48 that we have, specifically for St. Thomas, and so we're on the

1 far-right-side of the plot. The stoplight colors are green for
2 good, yellow for limited, and red for missing.

3
4 Here in this table, we are looking at the top seven species ranked
5 across all species in St. Thomas for which we have the length data
6 available, and the overview triage is specific to each island, and
7 so it's relative to this -- The rankings are relative among the
8 species on each island, and the summary approach allows us to see
9 which species stand out in having sufficient types of data that we
10 need for upcoming assessments.

11
12 Here is a summary of it, but this information is actually broken
13 down into all the different various components and the specific
14 data, and we're able to kind of really show it in a summary way,
15 with this approach of this overview triage, and so we have that
16 for the other islands, but, for now, we'll just be showing this
17 one today. With that, I will pass it over to Rachel.

18
19 **RACHEL ECKLEY:** Thank you. As they mentioned, I am Rachel. Today,
20 I wanted to share with you a project that I've been working on
21 which involved building a database of Caribbean research, and we
22 are calling this the Caribbean Projects Inventory.

23
24 I know we've heard about this a little bit, but it just want to
25 reiterate the importance of the stock assessment process, which is
26 NOAA Fisheries' way of monitoring the health of fish populations.
27 Recall, from Adyan's presentation, that the three main components
28 to this process are data collection, data processing, and then the
29 actual mathematical modeling. From the model, we're able to answer
30 the questions of how are the stocks doing now and what are the
31 future projections.

32
33 We then are able to provide management advice, like ACLs, catch
34 limits, season lengths, and size limits, all with the overall goal
35 of maintaining sustainable fisheries and healthy fish stocks.

36
37 In order for a successful and informative stock assessment, we
38 need many kinds of data, and we've heard about the data already
39 today and yesterday, but they are important and worth mentioning
40 again. Recall the ABCs that we just heard from Adyan, and the
41 three main data categories required are abundance, biology, and
42 catch, and we really like this graphic here, because it answers
43 the question of who provides the data.

44
45 We rely on commercial fishers, recreational fishers, and research
46 scientists to obtain the regional abundance, biology, and catch
47 data, and it's important that we compare historical data with
48 current data, in order to understand how the stocks have changed

1 over time.

2
3 This leads to me our ongoing effort of building a database that
4 includes sources for those historical and current data necessary
5 for the stock assessment process. We are compiling reports,
6 publications, and information on research projects that have
7 collected or are collecting those data in the U.S. Caribbean and
8 adjacent waters.

9
10 At the moment, we are focusing on compiling NOAA-funded research,
11 but we're capturing other sources opportunistically. Along with
12 the historical and ongoing research, we are also capturing
13 information on any planned projects that will occur in the coming
14 years. Users will be able to search for specific criteria,
15 including species, location, year, and the type of data collected,
16 and the output will be a table that shows all relevant research
17 that matches the search criteria, with links to the reports or
18 publications.

19
20 Along with the search criteria that I mentioned previously, we're
21 also compiling information related to the research methods of the
22 project, including experimental design and sampling unit. In
23 addition to that, we're compiling funding information, including
24 the source, the dollar amount, and the grant number, when that
25 information is available. The funding source will also be a
26 searchable field, as a means to determine where the majority of
27 the funding is going to, and, finally, we are reporting the contact
28 information of the principal investigator, as well as
29 collaborating organizations or personnel.

30
31 This here is an example of a record in the database, and this
32 particular one is the princess parrotfish age, growth, maturity,
33 and transition, and I have converted the record from the current
34 horizontal view that we're using in the database to a vertical
35 one, just for ease of showing the information today and fitting it
36 all on the screen.

37
38 You will see that, for this record, we have compiled the citation,
39 the link to the publication, the year it was published, and the
40 location in which the research took place. The type of data
41 collected in this study was categorized as life history, and we
42 have created drop-down categories as a way to organize the records
43 and make the database more searchable, and life history is one of
44 those drop-down options. Other drop-down options are indices of
45 abundance, take, social science, and management and regulations.

46
47 The sub-categories would be the specific information you will find
48 in the paper, which, for this record, are age, growth, and maturity

1 data. Below that, we note the common and scientific name of the
2 targeted species, which, for this record, is princess parrotfish.

3
4 Now, for this paper, the species and the data categories were
5 listed in the title, and so this was fairly straightforward, but,
6 for projects and reports that target multiple species, these fields
7 aren't always listed in the title, and so these fields will be a
8 really great way to search the inventory for the data that you
9 need.

10
11 Funding for this work mainly came from NOAA, and all the grant
12 numbers are listed there, and another drop-down category is the
13 study type, whether the information was gathered from fishery-
14 dependent, fishery-independent sources, or a hybrid of both, and
15 this particular work was categorized as a hybrid, as it had
16 fishery-dependent and independent data, and this field will also
17 be in the search criteria, and then, finally, at the bottom, we
18 have the authors and the first author affiliation.

19
20 Why have we initiated this effort? What we're doing here is
21 creating a central repository of research that will be accessible
22 to various organizations and collaborators, and the main point
23 here is accessibility. It's impossible to know about every
24 research effort that has taken place, or every report that has
25 been published, especially if those data or reports are sitting on
26 a desk or a computer.

27
28 Having this centralized location that is accessible to everyone
29 who needs it will be extremely beneficial for fisheries management.
30 With this research inventory, we at the Southeast Fisheries Science
31 Center will be able to identify the existing data, as well as
32 identify those areas in which we may need more data. We will then
33 be able to focus our efforts and fund those needed areas of
34 research, be it for the stock assessment process or ecosystem-
35 based fisheries management.

36
37 This is my last slide, and I just wanted to give a little update
38 on this effort. It's currently being compiled in an Excel
39 spreadsheet, and we have identified a number of individual
40 projects, reports, and publications dating back to the early 1900s
41 up until the current time.

42
43 Moving forward, we plan to integrate this inventory into ODM, or
44 the Online Database Manager, which is where the management history
45 database is housed, the one that Adyan mentioned a little bit ago,
46 and that database was created in a dynamic manner, to support a
47 variety of datasets, and so we believe this inventory will be a
48 great fit for it.

1
2 Again, going back to that theme of accessibility, moving this into
3 an online data warehouse will allow more personnel to have access
4 to and utilize the inventory, and of course, I have to put in a
5 request for information, and so, if you have any reports, or you
6 know of any that may not be accessible online, we would greatly
7 appreciate a digital copy, so that we can continue building this
8 inventory.

9
10 Additionally, if you have any planned research projects, we would
11 love to hear about them and add them to the inventory as well. I
12 have left my email there on the screen, and so please reach out
13 with any information or any questions that you may have. That was
14 all that I had, and I think, if you go to the next slide, it's
15 just questions, and so thank you for your attention, and, Kevin,
16 I guess I will throw it back to you.

17
18 **KEVIN MCCARTHY:** Thanks, Rachel and Adyan. Any questions from
19 anybody?

20
21 **MARCOS HANKE:** Tony.

22
23 **TONY BLANCHARD:** I would like you to go back to your first slide,
24 the very first one that you put up, the one that mentioned the
25 recreational fishery. Right there.

26
27 I'm going to try to draw you a picture, because, for the last ten
28 years, I've been involved in this process, and I came on as the
29 chair for the trap reduction committee, and I've been a fisherman
30 basically all my life, and the point I'm going to try to make here
31 is that this is a continuous process, that the load of this fishery
32 falls on the commercial fishers.

33
34 The only information we have in the Virgin Islands is on the
35 commercial fishery, and we mention, every time, that the fishery
36 is managed by the recreational fishery as well as the commercial
37 fishery, yet we have no recreational information in the Virgin
38 Islands. Time and time again, it's been mentioned that we're going
39 to fix this problem, but, at the end of the day, I think this is
40 an injustice to the commercial fishers, number one.

41
42 Number two, if we're going to manage a fishery, and this is the
43 criteria we need to manage this fishery, we ain't doing a good
44 job, brother, because, at the end of the day, I guarantee you
45 there's a lot more recreational fishermen dipping into this fishery
46 than commercial, yet, when we find a problem with the fishery, or
47 the stocks, it's always the commercial guy that takes the blame.

1 It's always the commercial guy that gets the regulation put on his
2 head, and so I'm going to try to keep it short and make the point,
3 and the question is this. When is the council going to get serious
4 about fixing this recreational problem, because, at the end of the
5 day, the only one who is taking a blow is the commercial fishery,
6 and, to be honest with you, I'm a little tired of it, and that's
7 why I stepped out of going to meetings before ten years ago.

8
9 I used to be involved in going to the commercial -- To the CFMC
10 meetings, when they were held in the Virgin Islands, and I used to
11 go to the fisheries meetings, and I got tired to beating my head
12 against the wall.

13
14 When I stepped into play here, I figured that we would get some
15 things in check, which we look like we ain't getting anything in
16 check, and we call for enforcement, and I'm going to give you a
17 perfect example. Enforcement comes in, and I am willing to bet
18 you eight out of ten enforcement -- Where enforcement steps into
19 play, they're going to stop a commercial fisher. They ain't going
20 to stop the guy with his family running up and down the place with
21 four rods off the back of his boat, but I guarantee you that, if
22 they seem a boom coming off of my boat, they're going to stop me.

23
24 To the end of the day, when is this injustice going to stop, and
25 when is the CFMC going to get serious about fixing this? That's
26 the question.

27
28 **KEVIN MCCARTHY:** I can't speak for the council or enforcement, and
29 what I am getting at with this, I think, is getting at some of
30 your frustration, which is this is talking about collecting data,
31 and so how -- We need to collect not just the commercial landings,
32 but the rec landings as well, and so some of those other slides is
33 the survey that we are just starting in the Virgin Islands, is to
34 get at both commercial and rec, to get both of them, and the for-
35 hire sector.

36
37 If you've got a -- I don't think you do a lot of headboats here in
38 the Caribbean, but, if you've got a charter boat that's going out,
39 what are they catching, and so I agree that we're not tracking
40 that at all, or at least not consistently and thoroughly, and so
41 that's what this new survey design is meant to get at, how do we
42 sample the recreational fishery in addition to the commercial
43 fishery, and so I'm right there with you on getting those data,
44 because we can't say the impact of the recreational fishery until
45 we've got some data.

46
47 We could speculate all you want, but we can't say it for sure, and
48 so this is about collecting those very data you're talking about,

1 but, as to what the council will do, or enforcement will do, that's
2 outside of what I do.

3
4 **MARCOS HANKE:** A follow-up from Tony, and then we have Vanessa,
5 Julian, and Nelson in the queue.

6
7 **TONY BLANCHARD:** Okay. Let me just run a scenario by you, and I
8 know I'm going to sound like, because, at the end of the day, it
9 is what it is, and I'm speaking as a commercial fisher, and so let
10 me be very clear.

11
12 If the commercial fishers of the Virgin Islands was to get serious
13 and challenge this MSA, according to their guidelines, this fishery
14 is not being managed how it's supposed to be, because of the lack
15 of recreational information, and so, at the end of the day, this
16 is a biased -- This is biased data that we are dealing with, and
17 so I will leave it on that note, and I am not putting this on your
18 head, and don't get me wrong, and I ain't blaming you. This has
19 been a process that, from day one, the commercial fishers have
20 been carrying on their back, and I don't see this getting fixed
21 anytime soon, to be honest with you, and that's as straightforward
22 as I can be and as clear as I can be.

23
24 **MARCOS HANKE:** Thank you, Tony.

25
26 **KEVIN MCCARTHY:** Can I just --

27
28 **MARCOS HANKE:** Yes.

29
30 **KEVIN MCCARTHY:** I appreciate your candor, Tony, and I understand
31 your frustration, but it is a process, and, if we don't get
32 started, we'll never get finished, right, and so what I'm saying
33 is we're trying to get started, and we're trying to -- You know,
34 what happened in the past is in the past, and I was not part of
35 that, but we're here now, in this time and place, and let's move
36 forward and figure out ways to address this problem, because you're
37 right that it is a huge data gap that we can't put a good handle
38 on, and so we want to address it. We want to have the data.

39
40 **MARCOS HANKE:** Yes, and, like I said, I have Vanessa, Julian, and
41 Nelson. Before that, I just want to mention that this
42 presentation, to me, being involved in this process for a long
43 time, shows, for the first time, a good effort on coordination and
44 looking for efficiency and looking for industry participation,
45 which includes recreational fishermen for the first time, and, for
46 sure, to get more details, you can talk to Kevin later on, because
47 recognize that we have a greater effort on the recreational, and
48 that we all here have been requesting, over the years, to include

1 those data and to make it available to us. Vanessa.

2
3 **VANESSA RAMIREZ:** Thank you, Marcos. I just want to say some
4 comments, especially in the same line of Tony, because it's
5 practically the same issues that are in the Virgin Islands are in
6 Puerto Rico with the data collection, but I want to make one
7 comment.

8
9 Some of the species that we are looking at, we are not going to
10 find in the data collection, and it's not because we don't have
11 enough, but it's because, practically, for the commercial
12 fishermen, they go for the ones that are the best paid, and some
13 of these fishes that we're presenting here, like the example of
14 the queen triggerfish, we have many, and we have a sustainable
15 fishery, but the thing is that it's underpaid by the fish markets,
16 and so that's why, especially in the west area, that we have a lot
17 of fishermen and divers, and they don't go for it, because it's
18 really underpaid.

19
20 How could we practically start making them report the best data
21 that can help you to bring the data that you need to continue this
22 big effort that you are doing? Thanks.

23
24 **KEVIN MCCARTHY:** I think I followed the question, and I had a
25 little bit of trouble hearing, and so correct me if I'm wrong.
26 One of the ways to get at better data, in terms of landings, is
27 the surveys that I talked about, and that is for commercial as
28 well as recreational.

29
30 Those efforts are happening both in the Virgin Islands and in
31 Puerto Rico, and so a properly-designed, statistically-valid
32 survey will get at those better numbers, because we need to have
33 a good, solid way of saying we've got confidence in the numbers
34 that we're getting, and I think those surveys, and the
35 participation of the fishers in those surveys, are what is going
36 to get us to a place where we have confidence in the data.

37
38 As far as the economics side, we've been talking with the social
39 science research group at the Science Center, especially in Miami,
40 to get them more involved, and I know that they've done work down
41 here, but we specifically talked to folks, very recently, about
42 getting them to participate more in the stock assessment process,
43 and they can inform things like -- Through their work, they can
44 inform things like how do prices -- How do natural disasters and
45 how do various factors that are kind of outside the data collection
46 that the fisheries people do, and how do those impact the landings
47 and the fishing behaviors of the commercial fishers and the
48 recreational fishers.

1
2 There is a place in what you're saying for the social science
3 research group as well, and so we're trying to get them more
4 involved, and they want to be involved, and they have been doing
5 other work, but now we're at a place where we're starting to get
6 people more coordinated, and so that's what we're trying to do,
7 and so I hope that addresses your question.
8

9 **MARCOS HANKE:** Thank you, Kevin. We have Julian, and I have
10 Jocelyn requesting, and I will go with you, Jocelyn.
11

12 **JOCELYN D'AMBROSIO:** I just wanted to speak, briefly, to the
13 comments about managing the commercial versus the recreational
14 sectors. Obviously, the management measures that we've been
15 talking about, the overfishing limits and the ACLs and the ABCs,
16 they're based on the best data that we have available, and, for
17 right now, as Kevin and the Science Center have explained, that's
18 the commercial landings data.
19

20 We're trying to fill in those data gaps and get the recreational
21 data, so that we can have more informed management reference
22 points, based on good quality data, and, obviously, that's because
23 we want to ensure we're meeting the Magnuson goals, in particular
24 preventing overfishing and achieving optimum yield, but, in the
25 meantime, with the management measures that we do have, that are
26 based on the best available information that we have at this time,
27 I just wanted to clarify and make sure everyone knows that we are
28 managing the recreational sector.
29

30 We'll look at commercial landings information and compare those to
31 the annual catch limits, and, where a closure needs to occur,
32 because of exceedances of the annual catch limit, that closure
33 applies to the recreational and commercial sectors, and so, in
34 that instance, on the enforcement question, if there were persons
35 recreationally fishing during a closure, that would be a violation
36 that could be enforced, and so I just wanted to clarify that we
37 are managing the recreational sector, but we're using the available
38 data, which is the commercial data, and then this presentation is
39 talking about getting better data, so we can make sure that we
40 have more informed management, but, in the meantime, we are
41 managing, to the best we can, the recreational sector.
42

43 Of course, there is bag limits as well for the recreational sector,
44 but I did want to clarify that the closures, for example, do apply
45 to the recreational and the commercial sectors.
46

47 **MARCOS HANKE:** Thank you, Jocelyn. Julian.
48

1 **JULIAN MAGRAS:** This one is going to be very interesting, and so
2 I looked at your presentation, and it's an excellent presentation
3 put together by the team, and here it is I see that you're
4 mentioning of the involvement of the fishers, but I am still
5 waiting to see that involvement.

6
7 I see that you're doing interviews with fishers about traps and
8 stuff like that, and I'm the chairman of the St. Thomas Fishermen's
9 Association, and I have the forty-three biggest hitters on my team,
10 the biggest fishers in the industry, and I just reached out to my
11 fishers, to ask them which of them has been interviewed about trap
12 dimensions or different traps they use and everything, and no one
13 knows what I am talking about, and that's one.

14
15 Where is this study taking place? Is it taking place in the St.
16 Thomas/St. John district, or is it taking place in the St. Croix
17 district, because it's two different fisheries.

18
19 The UVI is doing a study on lobster diving, and not one fisherman
20 is involved in that study. I know who is doing the diving, and
21 where they are diving, and they don't know where they are diving,
22 and I have a problem with that.

23
24 I think, going forward, that, any grants that are given to any
25 scientist, it should be mandatory that there is fishers involved,
26 and it should be a speculation in those grants, and the reason why
27 is scientists hold the PhD, by paper, and I have been saying this
28 for years, saying this for years, and they hold it by paper, and
29 we hold a PhD by fishing on that ocean for a living.

30
31 We know what goes on everywhere on that ocean at different times
32 of the year, and I am so frustrated with how this process has been
33 going. We talk about port sampling, and the project that you guys
34 are pushing forward -- There is so much inconsistency in that
35 project by the presentation that was given and by Todd Gedamke and
36 what was done in Puerto Rico.

37
38 We are talking about certain species being off up to ten to a
39 hundred thousand pounds, and we have been saying, for the longest
40 time, that we need port samplers hands-on measuring and weighing
41 the fish, and I heard you say that you're going to do a port sample
42 in ten minutes, and, nothing against you, but it's never going to
43 happen.

44
45 If I come in with three coolers of fish, and I used to have one
46 guy from Fish and Wildlife, Gerald Greaux, that used to come and
47 port sample my catch, and I am working with him on separating the
48 fish, and it took us about an hour-and-a-half to do, and you're

1 getting every fish measured, and you are getting every fish
2 weighed, and you're getting all the information on where we fish,
3 how long we fish, how long the traps soak, everything.

4
5 This process of coming and taking a picture, the first thing that
6 this was preliminary, I would say about six to eight months ago,
7 and they came and they did me. Four port samplers came, and they
8 are taking pictures, and I am trying to understand what they are
9 doing, and some asked questions.

10
11 Number one, they didn't know half of the species, and they wouldn't
12 ask the fisher, which was me, what kind of fish is this, and
13 they're looking through a book, and so just think how long it took
14 with four port samplers and me to do the catch, and it was three-
15 and-a-half hours, and it was a very small catch.

16
17 What the fishers are trying to say here is we're throwing all of
18 this money -- You're going to have these people coming out with
19 cameras and everything, and I see it to be a big waste of money,
20 because it's going to take more than the actual hands-on body that
21 was doing it before to get the job done, and they're not going to
22 be able to keep up with a lot of the guys from the Saga Haven area.

23
24 I've been telling them that, listen, we've got seven, or eight, of
25 the biggest fishers fishing out of the area, and we're all going
26 out two or three days this week, and bring your whole team in,
27 and, when we come in, you have the whole team there and sample
28 every boat that comes in there one time.

29
30 You can't get that done up until now, and there is no ice to re-
31 ice the fish, and there's a big problem with the fishers being
32 willing to help. The St. Thomas Fishermen's Association has been
33 willing to help, and we want to create a great dataset that, when
34 we go to look at stock assessments, and I will use Virginia
35 Shervette as an example.

36
37 When she put her presentation up there, look at that amount of
38 information that she is able to give us, and imagine -- I sat on
39 the SEDAR lobster process with you guys, and the fishers were able
40 to give a lot of information that the scientists didn't have, and
41 the amount of information that we were able to compile, and we
42 were able to move forward with a good assessment.

43
44 This is why we can do it if we get the involvement, and you guys
45 need to start to listen to the fishers. We don't want special
46 treatment. Everyone in here is getting a salary, right, except
47 for Tony, Nelson, and myself. We are fishers, and so, every day
48 we are here, we lose fishing. The little compensation that we get

1 here is nothing to compare for our hands-on, but the reason we are
2 here is because we care about our fishery, and we care about the
3 future.

4
5 You know, at first, when we came in here, we came in here as
6 fighters. Back in 2004, it was a war when you walked into a room,
7 and Miguel can tell you. Now, you have a working relationship
8 that we've been trying to move forward, but obstacles have been
9 getting in the way over the last couple of years, and we need to
10 stop that. I think we're all trying to accomplish the same thing
11 here, and we need to get the fishers more involved, and you guys
12 need to listen a little bit more.

13
14 We can help you get the information that you want, and it's going
15 to be 100 percent accurate. If not 100 percent, 99 percent, but
16 trying to speed up and collect something is not always the right
17 way. The right way is doing it correctly, and I feel that, if we
18 get out there, and we measure the fish, and I can take -- Let's
19 use the red hind as an example.

20
21 I can take a hind that I catch that's been in a trap for four days,
22 and it weighs a pound, and I can take a hind that I've caught in
23 a pot, in a three-hour soak, because of baiting, and it weighs a
24 pound-and-three-quarters, and what's the difference? This fish
25 was not in the trap losing weight, and he was caught as he went
26 in.

27
28 When you look at size and weight frequency, you're going to see a
29 big difference, and that's when the preliminary stuff that was
30 done in Puerto Rico -- You saw the big numbers, and, you know, a
31 good way to determine is, all right, let's say we're going to do
32 ten of the new way, but, when you do those ten new ways, at the
33 same time, let's have those same ten done the old way, the way
34 that we feel, and let's compare those numbers and really see, off
35 of those ten samples, what is the difference.

36
37 You guys would be surprised, and I think that's what we need to
38 look at, in order for us to give the Southeast Fisheries Science
39 Center the tools that they need to do their job, and we need to
40 give them the best information as possible, and so I am not here
41 to beat anyone down, but I am just here that I would like, like
42 Tony said, and I know that Nelson is going to chime in here shortly,
43 but I would like us to see it being done better. Let's do it the
44 right way and not waste money to try something.

45
46 Let me just look here and see my other notes here, and so I will
47 leave it as that for right now, and, if you want to comment, I am
48 -- But I just want everybody to know that I am not picking on any

1 department or anyone, and I am just saying there is a way to do it
2 and a way not to do it correctly, and getting your fishers 100
3 percent involved -- You have fishers that are willing to do it,
4 different fishers from the different parts of the industries, and
5 they are willing.

6
7 They are willing to take you out on their boat, and they are
8 willing to help you do whatever you want to do. You know, I was
9 honored by the council a while back, a few years back, in 2017 I
10 think it was, at a CCC meeting that was held at Frenchman's Reef,
11 and I made the statement right there, and a lot of the other
12 council representatives that were there agreed with my statement,
13 and it's the same thing that I said earlier. You guys hold a
14 degree by paper, and we hold a degree by hands-on. Us working
15 together, we can achieve a lot more than working against each
16 other. Thank you.

17
18 **MARCOS HANKE:** Thank you, Julian. Kevin, short comments, and then
19 we'll go to Nelson, and then we have to wrap up.

20
21 **KEVIN MCCARTHY:** Okay. Thanks, Julian, and I am going to try to
22 and turn and look at you and talk into these, because I hate to
23 have my back to you when I respond. So much of what you said I
24 agree completely, and, in fact, if we can advance to Slide 1 or 2,
25 and right there is collaborative research. It's the third point
26 down, and I completely agree.

27
28 Everything that you will ever see that has "CRP" with it, and you
29 know that as well as I do, Cooperative Research Program, and that
30 has to have people in industry involved in the project, and so,
31 right there, it's a mandate, and we absolutely want to have that.
32 We absolutely want to have that, and I couldn't agree with you
33 more.

34
35 There was a whole lot of stuff you went through, and so I'm going
36 to try and remember, so that I can respond, and so we are actively
37 looking to do that, and maybe what we need to do, so that we ensure
38 that more folks are being involved, is you and Sennai and I get
39 together and talk about who has been involved in the trap study
40 and the design of all that, so that we can -- We want to get the
41 broad array of people to have input on this, because we don't want
42 to come up with some specialized trap design that hardly anybody
43 uses.

44
45 We want to get -- I get it that there are a zillion different
46 varieties, but there are probably some groups that are fairly
47 similar, right, and we want to get at that, and so let's have that
48 conversation today, before everybody takes off out of here.

1
2 We want to do that, and, as far as the dive survey, contracting
3 with fishers can be tricky, and so we need to talk about that too,
4 and we've got to have a mechanism so that we can do that directly,
5 and it's hard to do that contracting process, and so I think, in
6 the Virgin Islands -- We've got some things set up in Puerto Rico,
7 but we need to do -- We need to come up with a similar mechanism
8 in the Virgin Islands, because, if they get NOAA money, they're
9 got -- There is all kinds of rules they've got to follow.

10
11 One of the things, and I'm not -- I want to fix it, and I want to
12 be able to more directly work with the fishers, but sometimes you
13 get money and you've got spend it, and so the quick way to spend
14 it, in this particular instance, was the University of the Virgin
15 Islands is part of the Cooperative Institute for Marine and
16 Atmospheric Science, and so CIMAS, which is run through the
17 University of Miami, but it involves a bunch of different
18 universities, including the University of the Virgin Islands,
19 Puerto Rico, the University of Puerto Rico, other places.

20
21 I can immediately put money over there, and I can immediately get
22 a project started, because, when they tell me, in June, can you
23 spend this money, and I say yes, I have to have it spent in about
24 a month, and so it's harder to do that with the contracts, but, if
25 we have a mechanism in place, and they tell me, in June, can you
26 spend this, and I've got a mechanism to work with you guys
27 directly, I can say, yes, I can spend it, and here's how I'm going
28 to do it, and then we can move that money, but, in this case, the
29 Caribbean Fisheries Branch is not even a year old yet, and, when
30 they give me money, I don't have to say yes, but I need to say
31 yes, because we've got so many projects that we need to do down
32 there, but, if I ever say no, they're never going to ask me again,
33 right, and so I've got to spend it.

34
35 I know that only addressed some of your comments, but let's talk
36 some more today about those very issues, about how we can get that
37 mechanism set up, and about the trap study, so we get more people
38 involved, and so I'm sorry for not getting to all of it, but I
39 know we need to move on.

40
41 **MARCOS HANKE:** Nelson.

42
43 **NELSON CRESPO:** Julian, you hit the nail, and so I am not going to
44 go over the words, because you said it all, and I don't have much
45 to say about that, but I just want to make a quick comment. I
46 support strongly the words of Tony and Julian, and I think that
47 not only this council but the local governments have to step up to
48 the plate and finish, for once and for all, the recreational

1 license, because we need that data, because we feel that we are
2 receiving unfair treatment when it's time to apply accountability
3 measures, and we have unfair competition with the recreational,
4 that everybody knows that most of the catch ends in the market.

5
6 It's very important to take care of this issue, because we're going
7 to lose our lives dealing with this, and it's time to do something,
8 and don't keep -- Just finish, and let's go to work. We need the
9 recreational data that we need. Thank you.

10
11 **MARCOS HANKE:** Thank you, Nelson, and I want to invite everybody,
12 because we are very short on time, to read the comments by Shannon
13 and by Virginia and others on the chat, that basically are in
14 agreement of the conversations and the points that Julian, Tony,
15 Nelson, and Kevin brought to the table and the kind of conversation
16 to deal with the collaboration and the request that has been made
17 on the record today. I just would everybody to go to the chat and
18 read the comments. The next presentation is Maria Lopez.

19
20 **ISLAND-BASED FMP UPDATE**
21 **MODIFICATION TO THE BUOY GEAR DEFINITION**
22

23 **MARIA LOPEZ:** Good morning. The first thing that I wanted to say
24 is about the island-based FMPs, and this is just going to be a
25 short update, and so we are very, very close to being done with
26 our NOAA Fisheries reviews, so can publish the proposed rule for
27 these island-based fishery management plans.

28
29 The plan is still that the island-based fishery management plans
30 should be in place in early 2022, and so that's all I have for you
31 right now. As soon as we have more information, we will be sending
32 that information to the council, so that it can be published on
33 their website as well as in their social media and other forms.

34
35 I am going to start with another topic, and the next topic is the
36 modification to the buoy gear definition and use. Once again,
37 hopefully this is the last time that we're going to be hearing
38 this presentation in here, because are trying to have final action
39 on this amendment today. There's a couple of things that we still
40 have to do, and so I'm going to go through everything, as a
41 refresher.

42
43 The last time that we met, the council requested the addition of
44 an action that will address the potential use of the buoy gear by
45 the recreational sector, and so we added that in there, and so I
46 will go through each one of the actions, the final purpose and
47 need that was prepared by the IPT, and then I will give a summary
48 of what each of the actions will be doing and then next steps.

1
2 The issues addressed in this amendment are going to be two, as I
3 just said, to modify the definition of buoy gear in federal
4 regulations to allow the use of up to twenty-five hooks to fish
5 commercially, and then the second item was limit the use of buoy
6 gear to those fishing commercially.

7
8 Let's talk, real quick, about that new issue which the council
9 tasked staff to look into during the last council meeting. The
10 council would like to restrict the use of buoy gear to commercial
11 fisheries only. Council members were concerned about the potential
12 for use of buoy gear by recreational fishers that are fishing for
13 non-managed species, and I am mentioning non-managed species
14 because the use of buoy gear in other managed fisheries by the
15 council is not allowed, and so the only place where the use of
16 buoy gear is allowed is for non-managed fisheries, which means
17 that these are the ones that, once we go to the island-based FMPs,
18 there is a lot of species that are not going to be managed in these
19 plans, and so, to address that possibility, for future use of this
20 gear, the council requested this.

21
22 They also mentioned, during the last council meeting, that the use
23 of the buoy gear was very limited, or non-existent, and the
24 rationale for that is because it was a very specialized gear, and
25 that recreational use was unknown, and it was unquantified at this
26 time, and then there were also other measures that we wanted to
27 take, for example to protect essential fish habitat, and also
28 protect managed species. There were concerns that there could be
29 an increased effort in the future added if recreational fishers
30 would be using this gear.

31
32 Buoy gear, just as a refresher, is an allowable gear for Puerto
33 Rico, St. Thomas/St. John, and St. Croix in the commercial reef
34 fish and pelagic fisheries that are managed by the council under
35 the FMPs; Puerto Rico, St. Thomas/St. John, and St. Croix non-
36 commercial fisheries and non-FMP commercial pelagic fisheries; and
37 also non-FMP recreational fisheries. I know it's a little
38 complicated, but this is how it's going to be in the island-based
39 FMPs, and remember -- I should have said this before, but this is
40 an amendment to the island-based FMPs. Once the FMPs are
41 implemented, we can proceed with this amendment.

42
43 This is the purpose and need, and all of this information is in
44 the amendment that was included in the briefing book, and so the
45 purpose is to modify the definition of buoy gear included in
46 federal regulations at 50 CFR 622.2, and these are federal
47 regulations, the Caribbean section, to allow for the use of a
48 greater number of hooks with this gear type when fishing

1 commercially for deepwater snappers and groupers managed under the
2 Puerto Rico FMP, the St. Thomas/St. John FMP, and the St. Croix
3 FMP, and to limit the use of the buoy gear to those fishing
4 commercially. I apologize, and 622.2 is the definition of buoy
5 gear that applies to South Atlantic, Caribbean, and Gulf fisheries.
6 This change will only be for Caribbean fisheries.

7
8 The need is to ensure that commercial fishermen fishing for
9 deepwater snappers and groupers in federal waters of Puerto Rico,
10 St. Thomas/St. John, and St. Croix can use the buoy gear with more
11 than ten hooks, preferred by some fishermen, while protecting the
12 deepwater reef fish resource and its habitat and minimizing user
13 conflicts.

14
15 Now, this is another change from what you have seen before in the
16 previous amendment, in the previous version. The IPT switched the
17 actions, right, and we are going to start now, instead of just
18 having one action that deals with the commercial fishers and the
19 increase of the number of hooks, and we're going to do Action 1
20 now, and it's going to be buoy gear prohibition for recreational
21 fishing.

22
23 This is very simple, and it only has two alternatives. Alternative
24 1 is always the no action. Buoy gear is currently an authorized
25 gear type for recreational harvest in the Caribbean, as found in
26 50 CFR 600.725, and this is the list of allowable gears, and so,
27 in this list, as I mentioned previously, the only place where this
28 is allowed is for recreational harvest of non-FMP species.

29
30 Retain the authorized gear types for recreational harvest in
31 federal waters off Puerto Rico, St. Thomas and St. John, and St.
32 Croix. What this means is that, if we do anything, the only place
33 in our regulations where you can use recreationally buoy gear is
34 for those non-FMP species.

35
36 The Alternative 2 is our action alternative, and that's what the
37 council wants to do, is to prohibit the use of buoy gear for those
38 fishing recreationally in federal waters off of Puerto Rico, St.
39 Thomas and St. John, and St. Croix. What this alternative does,
40 instead of just prohibiting where it's allowed right now, it's
41 like a blanket statement basically saying that there is no use of
42 this gear for anything recreationally, right?

43
44 It's already like that, and so this is more -- Like, in our
45 regulations, it will say, in the Caribbean, you are not going to
46 be able to use this buoy gear to fish recreationally.

47
48 This is just a summary of what each one of the alternatives will

1 do, and I'm going to go through this real quick. Retain all the
2 gear types authorized for use, and this is Alternative 1, if we
3 don't do anything. Although buoy gear is an authorized gear for
4 recreational harvest of non-species only, which are species not
5 managed by the council, at present, there is no evidence that the
6 recreational sector uses, or has used, buoy gear, as defined in
7 the regulations.

8
9 Any use of the gear by the recreational sector is unlikely, because
10 buoy gear is a very specialized commercial gear that is expensive
11 and difficult to use, and this information is based on what you
12 told us, and so this is what we're including. You told us
13 something, and we're including that as part of our rationale.

14
15 This is the Alternative 2 to prohibit the use of buoy gear for
16 those fishing recreationally in federal waters of each one of the
17 islands. This proposes a broad prohibition for all recreational
18 fisheries, which means managed and non-managed species that will
19 be implemented for federal regulations.

20
21 It would eliminate any potential future conflicts between
22 commercial and recreational user groups at the subject fishing
23 grounds, any additional ecological/biological and physical effects
24 that might accrue through additional, additional meaning
25 recreational-fishing-related pressure at those grounds to those
26 resources, any safety concerns potentially associated with the
27 presence of a new fleet which we're talking about the recreational
28 fleet, at the deepwater reef fish fishing grounds which may arise
29 due to the specified characteristics of the buoy gear operations.
30 Again, this is all based on what you all told us.

31
32 For (b), what we're talking about, and (b) is the one that says
33 any additional ecological/biological and physical, we're talking
34 about the risk of overfishing of the deepwater snapper grouper
35 resources, any risk to managed species for misuse of the buoy gear,
36 and we also want to limit bycatch of species.

37
38 This is our summary for Action 1 for recreational. Alternative 1
39 does not change any of the gear types authorized to fish
40 recreationally, while Alternative 2 only affects one gear type,
41 which is the buoy gear, and its use by the recreational sector
42 fishing for all species, managed and unmanaged. However, neither
43 Alternative 1 nor Alternative 2 are expected to alter recreational
44 fishing behavior in the short-term, as there is no evidence that
45 the recreational sector uses or has used buoy gear in the EEZ.

46
47 With that, I am going to move to Action 2, and this is the one
48 that you are familiar with. It's modification of the buoy gear

1 definition. Alternative 1, no action, the definition of buoy gear
2 specified in 50 CFR 622.2, with respect to the number of hooks
3 allowed, would not be changed, and the number of hooks would remain
4 at ten.

5
6 Alternative 2 would modify the definition of buoy gear in 50 CFR
7 622.2 as it applies to the commercial sector fishing for managed
8 reef fish in the EEZ off of Puerto Rico, St. Thomas/St. John, and
9 St. Croix to allow the use of up to twenty-five hooks connected
10 between the buoy and the terminal end. Alternative 3 is the one
11 that we added the last time that we met, and it would modify the
12 definition of buoy gear in 50 CFR 622.2 as it applies to the U.S.
13 EEZ in the Caribbean. That is the EEZ of Puerto Rico, St.
14 Thomas/St. John, and St. Croix, to allow the use of up to twenty-
15 five hooks connected between the buoy and the terminal end for all
16 authorized commercial fisheries. This is the same text that is
17 described in the amendment.

18
19 In the next slide, I am just describing what each of the
20 alternatives will do. Alternative 1, no action, the definition of
21 buoy gear that we have currently in our regulations is not going
22 to be changed. One of the specific requirements, under this
23 definition, is that buoy gear cannot contain more than ten hooks
24 connected between the buoy and the terminal end. In components of
25 each of the island-based FMP fisheries, where buoy gear is an
26 authorized gear, and these are the commercial sector harvesting
27 managed reef fish, fishers must limit the gear to ten hooks.

28
29 Alternative 2 would modify the definition of buoy gear as it
30 applies to the commercial sector, and so this one will increase
31 the number of hooks allowed to be used up to twenty-five, instead
32 of ten. This new maximum number of hooks would allow those fishing
33 commercially for managed reef fish in federal waters to legally
34 use the gear configuration employed by some in state waters in
35 federal waters of Puerto Rico and the U.S. Virgin Islands.
36 However, in this alternative, the modification would only apply to
37 those using this gear to fish commercially for managed reef fish
38 species.

39
40 This is Alternative 3, and it would modify the definition as it
41 applies to the U.S. Caribbean EEZ to allow up to twenty-five hooks.
42 This one would increase the number of hooks allowed to be used up
43 to twenty-five, instead of ten, for all commercial fisheries where
44 buoy gear is authorized.

45
46 Buoy gear, as currently defined in our regulations, is authorized
47 for the commercial harvest of reef fish and pelagic species in the
48 island-based FMPs for the commercial and recreational harvest of

1 non-FMP species and commercial non-FMP pelagic species.

2
3 That definition of buoy gear under Alternative 3 would apply to
4 all harvest in the Caribbean EEZ, similar to the application of
5 the definition. Now, note that there is an Action 1 that deals
6 with recreational. If that is prohibited, then this would only
7 apply for commercial, and so I made a note in here saying that
8 this does not supersede any regulations applicable to HMS species,
9 and just a reminder that this is only for fisheries that are not
10 HMS, and, if you're fishing for HMS species, you have to follow
11 HMS regulations.

12
13 In summary, for Action 2, Alternatives 2 and 3 would both increase
14 the maximum number of hooks that can be used with buoy gear to
15 twenty-five per line, depending on target or location, contrasting
16 with Alternative 2, which maintains the limit at ten. However,
17 Alternative 2 only affects fishermen fishing commercially for
18 managed reef fish with authorized buoy gear, while both
19 Alternatives 1 and 3 affect all fishers using authorized buoy gear
20 in U.S. Caribbean waters.

21
22 You previously -- Council members preliminarily expressed support
23 for Alternative 3, and, as you remember, this is because this one
24 is the one that gives you guys a little bit more flexibility. If
25 you are fishing for buoy gear, and I know that this is -- For buoy
26 gear with deep water, I know this is a very targeted fishery.
27 However, if you have other species incidentally caught, as long as
28 they are not HMS, you could be able to retain them, and so this is
29 something that you requested from us, and we added it as a new
30 alternative.

31
32 These are the next steps, and the reason that I went through all
33 of the alternatives is because we have not chosen, formally,
34 preferred alternatives, and, also, we have a new option that we
35 need to choose preferreds, and so what we need to do in this
36 meeting, if you agree, is to select preferred alternatives for
37 each one of the actions, and then, once you're comfortable with
38 that, the council can vote to submit the amendment for secretarial
39 review. That's all that I have, Marcos.

40
41 **MARCOS HANKE:** Thank you, Maria, and I think that we have discussed
42 this three times now.

43
44 **MARIA LOPEZ:** Yes.

45
46 **MARCOS HANKE:** Council members should be very aware of the
47 discussion. Go ahead.

1 **MIGUEL ROLON:** Just a matter of procedure that -- Maria, do you
2 prefer to have a motion for each one? If so, you can guide us,
3 and the council can have a motion to approve this as their
4 preferred alternative, and then the last one is a motion to submit
5 the document. Can you guide us through the first one, based on
6 previous discussion of the council?

7
8 **MARCOS HANKE:** I was just going through that, because it's the
9 most expedited and effective way of doing it, but I just wanted it
10 to be on the record that we have discussed this before, and this
11 is not new for anybody, and, from my perspective, Maria has
12 reflected everything that we discussed in the past, and it was
13 very precise and very well done. Go ahead, Maria.

14
15 **MARIA LOPEZ:** I prepared some -- Sarah and I prepared some
16 suggested text for the motion, based on what you preliminarily
17 told us about what you wanted. What we can do is -- Christina, if
18 you can go to Action 1, just so that everybody can look at the --
19 This is the first action, and the council needs to vote -- The
20 motion are already the suggested text, unless you change, and so
21 I think just vote on which one you want to do as a preferred, and
22 maybe we can deal with the motions later, and then, after you vote
23 on this one, then we'll go to Action 2 and vote on that one, and
24 then we'll show the motions, and then you can say if you want to
25 modify them or not.

26
27 **MARCOS HANKE:** Because you created the text, and not to waste time
28 of people rereading everything, can you just mention the
29 Alternative 2 is the one that you guys have been discussing, and
30 it was the preferred, and we just are going to speed up the process.

31
32 **MARIA LOPEZ:** Christina, do you want to show the motions that I
33 sent you? There are going to be a couple of motions. There is
34 going to be the motions to choose the preferred, and then there's
35 going to be a motion to submit it, and then I believe that we have
36 the codified text, too.

37
38 With the codified text, which is what is going to end up in the
39 regulations, right now, because there was no preferred selected,
40 it's what we have in our regulations right now, and so, once the
41 preferreds are selected, we can make that modification, and the
42 codified text will be sent to the council chair for review and for
43 deeming that, but we want to show you how the regulations look
44 right now. However, there are no changes included.

45
46 Normally, we would bring the text already with the changes, but,
47 because we didn't have a preferred, we didn't have that ready at
48 the time, but we're prepared to do that at any time.

1
2 **MARCOS HANKE:** Okay. Very quick, Maria, Tony wants to say
3 something.

4
5 **TONY BLANCHARD:** Well, I would like to move Action 1.

6
7 **MIGUEL ROLON:** Let's go the draft motions that you have one-by-
8 one. Tony, for the first one, is the language that you see on the
9 screen, is that what you --

10
11 **MARIA LOPEZ:** I can read what the --

12
13 **TONY BLANCHARD:** Yes, if you can read it. Action 1, Alternative
14 2, move.

15
16 **MARIA LOPEZ:** Just for the record, Alternative 2 says to prohibit
17 the use of buoy gear for those fishing recreationally in federal
18 waters off of Puerto Rico, St. Thomas and St. John, and St. Croix.

19
20 **DAMARIS DELGADO:** Second.

21
22 **MIGUEL ROLON:** (Mr. Rolon's comment is not audible on the
23 recording.)

24
25 **MARCOS HANKE:** Yes, and I also stated that a little while ago, and
26 I think the record is very clear. We're going to vote. Carlos.

27
28 **CARLOS FARCHETTE:** Yes.

29
30 **JEAN-PIERRE ORIOL:** Yes.

31
32 **DAMARIS DELGADO:** Yes.

33
34 **TONY BLANCHARD:** Yes.

35
36 **JACK MCGOVERN:** Yes.

37
38 **MARCOS HANKE:** Yes. The motion carries.

39
40 **VANESSA RAMIREZ:** Yes.

41
42 **MARCOS HANKE:** I am sorry, and I heard that, and, Vanessa, can you
43 speak again.

44
45 **VANESSA RAMIREZ:** Yes.

46
47 **MARCOS HANKE:** It's a unanimous decision.
48

1 **MARIA LOPEZ:** The second motion will be for Action 2, and, Mr.
2 Chair, if you want to read it.
3
4 **CARLOS FARCHETTE:** I will. I move to accept Action 2, Alternative
5 3 to increase the number of hooks to twenty-five for all commercial
6 fishing where buoy gear use is allowed for Puerto Rico, St. Thomas
7 and St. John, and St. Croix.
8
9 **TONY BLANCHARD:** Second.
10
11 **MARCOS HANKE:** The motion was presented by Carlos Farchette and
12 seconded by Tony Blanchard. Any discussion? Hearing none, we
13 will go for voting. Carlos.
14
15 **CARLOS FARCHETTE:** Yes.
16
17 **JEAN-PIERRE ORIOL:** Yes.
18
19 **DAMARIS DELGADO:** Yes.
20
21 **TONY BLANCHARD:** Yes.
22
23 **JACK MCGOVERN:** Yes.
24
25 **MARCOS HANKE:** Yes.
26
27 **VANESSA RAMIREZ:** Yes.
28
29 **MARIA LOPEZ:** This one is the one for submitting the amendment
30 with the preferred alternatives to the Secretary of Commerce.
31
32 **CARLOS FARCHETTE:** The council moves to approve the generic
33 amendment to the fishery management plan for Puerto Rico, St.
34 Thomas and St. John, and St. Croix, the modification of buoy gear
35 definition and use with the selected preferred alternatives and to
36 submit the amendment to the Secretary of Commerce for
37 implementation.
38
39 **VANESSA RAMIREZ:** Second.
40
41 **MARCOS HANKE:** Any discussion? Hearing none, let's go to a vote.
42 Carlos.
43
44 **CARLOS FARCHETTE:** Yes.
45
46 **JEAN-PIERRE ORIOL:** Yes.
47
48 **DAMARIS DELGADO:** Yes.

1
2 **TONY BLANCHARD:** Yes.
3
4 **JACK MCGOVERN:** Yes.
5
6 **MARCOS HANKE:** Yes.
7
8 **VANESSA RAMIREZ:** Yes.
9
10 **MARCOS HANKE:** Yes. **The motion carries unanimous.** Maria.
11
12 **MARIA LOPEZ:** The next motion is something that we always do, in
13 every amendment, and it's basically to make editorial, non-
14 substantive changes to the amendment, and all of those changes --
15 What we normally do is we have a list of those, and we send it to
16 the council chair for review, and this is something that we do all
17 the time, because sometimes there is little mistakes, et cetera,
18 et cetera.
19
20 **DAMARIS DELGADO:** I move to allow staff to make editorial, non-
21 substantive changes to the buoy gear generic amendment.
22
23 **TONY BLANCHARD:** Second.
24
25 **MARCOS HANKE:** Any discussion? Hearing none, let's go for voting.
26 The motion was presented by Damaris Delgado and seconded by Tony
27 Blanchard.
28
29 **CARLOS FARCHETTE:** Yes.
30
31 **JEAN-PIERRE ORIOL:** Yes.
32
33 **DAMARIS DELGADO:** Yes.
34
35 **TONY BLANCHARD:** Yes.
36
37 **JACK MCGOVERN:** Yes.
38
39 **VANESSA RAMIREZ:** Yes.
40
41 **MARCOS HANKE:** Yes. **The motion carries. It's unanimous.** Maria.
42
43 **MARIA LOPEZ:** I wanted to add that that part that says, "any
44 changes will be reviewed by the council and re-deemed as well",
45 and so that probably needs to be added to the motion. Sorry for
46 that. I apologize. It's not to that one, and it's to the next
47 one. We'll correct it when we go to the next motion.
48

1 Christina, did you have the codified text that was sent? No?
2 Okay. I have been informed that we don't need that, and so this
3 motion is to deem the codified text, which the codified text, as
4 a reminder, is what goes in our regulations, as necessary and
5 appropriate for implementing the gear amendment, and I think we
6 need to add something else to that. Jocelyn, can you give me what
7 is usually the text that we do, and this is more like the legal
8 text.

9
10 **JOCELYN D'AMBROSIO:** Sure. I was just thinking that it would be
11 useful not only to deem the codified text, but to also give the
12 council chair the -- Just to make it clear that we want the council
13 chair to have the --

14
15 **MARIA LOPEZ:** Hold on. We cannot hear you, Jocelyn. Can you hold
16 for a second? Okay. Go ahead.

17
18 **JOCELYN D'AMBROSIO:** Sure, and I was just saying that, as you had
19 mentioned, the codified text reflects the current regulations,
20 because we didn't have preferred alternatives, and so that means
21 that text will need to be changed to reflect the preferred
22 alternatives, and so we'll deem the codified text, but we'll also
23 need to be able to provide the revised codified text that reflects
24 the changes that were made for the preferred alternatives, and
25 we'll need to send that back to the council, and it would be very
26 useful if this motion could reflect that we're giving the council
27 chair the authority to re-deem that text.

28
29 I believe that's also noted in your SOPPs, but it's just useful to
30 have it in the motion, to clarify that the council is deeming the
31 codified text as necessary and appropriate and that we're giving
32 the council chair the authority to re-deem the codified text to
33 reflect the changes necessary for the selection of preferred
34 alternatives.

35
36 **MARIA LOPEZ:** Okay. Thank you, Jocelyn.

37
38 **MIGUEL ROLON:** (Mr. Rolon's comment is not audible on the
39 recording.)

40
41 **MARIA LOPEZ:** I don't have it, and so it should say the council
42 moves -- At the end of the sentence, we can add "the council chair
43 would be authorized to re-deem the codified text". That should
44 cover it, and we will be done with that.

45
46 **MARCOS HANKE:** Jocelyn, the language is what we need?

47
48 **JOCELYN D'AMBROSIO:** Yes, that looks good to me. You could reflect

1 any of the reasons to re-deem the codified text, to reflect changes
2 that are necessary and appropriate.

3
4 **MARIA LOPEZ:** Thank you, Jocelyn. To reflect changes that are
5 necessary and appropriate.

6
7 **MARCOS HANKE:** Damaris, do you want to present this motion? Go
8 ahead.

9
10 **DAMARIS DELGADO:** Move to deem the codified text presented by staff
11 as necessary and appropriate for implementing the buoy gear generic
12 amendment. Any changes will be reviewed by the council chair --
13

14 **VANESSA RAMIREZ:** Second.

15
16 **DAMARIS DELGADO:** -- and authorized to re-deem the codified text
17 to reflect changes that are necessary and appropriate.

18
19 **TONY BLANCHARD:** Second.

20
21 **MARCOS HANKE:** Thank you, Tony. Vanessa seconded the motion made
22 by Damaris Delgado. We're going to go for a vote.

23
24 **JOCELYN D'AMBROSIO:** Just as a quick point, and I'm sorry, Marcos,
25 but it looks like there might be just a typo in the last sentence.

26
27 **MARIA LOPEZ:** Can you wait, Jocelyn? Jocelyn, please wait a
28 second. I need to connect to the speaker. Go ahead.

29
30 **JOCELYN D'AMBROSIO:** I would just note that it would be probably
31 better if you had two sentences in the last sentence, and so where
32 it says that any changes will be reviewed by the council chair,
33 and if you just say that "the council chair is authorized to re-
34 deem", or "and the council chair is authorized to re-deem", just
35 as a grammatical point, and so --
36

37 **MARIA LOPEZ:** Where it says "chair", "and the council chair is
38 authorized".

39
40 **JOCELYN D'AMBROSIO:** I think you need both concepts. Changes will
41 be reviewed by the council chair, and the council chair is
42 authorized, or you could have two separate sentences, however you
43 would like to do it.

44
45 **MARIA LOPEZ:** Yes, that's fine. Thank you, Jocelyn.

46
47 **JOCELYN D'AMBROSIO:** Thank you.
48

1 **MARCOS HANKE:** Damaris, do you accept the change in the language?
2
3 **DAMARIS DELGADO:** Yes.
4
5 **MARCOS HANKE:** Vanessa, do you accept the change in the language?
6
7 **VANESSA RAMIREZ:** Yes.
8
9 **MARCOS HANKE:** Thank you. Now we are ready for voting. Carlos.
10
11 **CARLOS FARCHETTE:** Yes.
12
13 **JEAN-PIERRE ORIOL:** Yes.
14
15 **DAMARIS DELGADO:** Yes.
16
17 **TONY BLANCHARD:** Yes.
18
19 **JACK MCGOVERN:** Yes.
20
21 **VANESSA RAMIREZ:** Yes.
22
23 **MARCOS HANKE:** Yes. **The motion carries. It's unanimous.** That's
24 it? Are you finished, Maria? Carlos, go ahead.
25
26 **CARLOS FARCHETTE:** Just for clarification, everything that we just
27 did will also then automatically fall into place for each IBFMP
28 platform?
29
30 **MARIA LOPEZ:** Yes, Carlos, and everything is for each one of the
31 FMPs, and remember that these changes are going to take place once
32 the island-based FMPs are in place and the proposed rule for this
33 particular action is prepared, and the final rule, et cetera, and
34 so as soon as the final -- We are done with this one, and so, as
35 soon as the island-based FMPs are in place, we're already going to
36 be working with that proposed rule, to get everything done.
37
38 I want to say thank you to everyone that helped out in preparing
39 this amendment, especially the fishermen, because this is an action
40 that was brought by the fishers, with a lot of concern from
41 particularly Pauco, Edwin Font, and thank you so much, and
42 hopefully this will be done as soon as possible. Thank you, all,
43 and thank you, Nelson, also, Nelson Crespo, for all of your
44 assistance in explaining to me how the fishery works. Thanks. I
45 learned a lot.
46
47 **MARCOS HANKE:** Thank you very much. We're going to make a fifteen-
48 minute break, for people that need to make the checkout to do so,

1 and we'll come back in fifteen minutes. It's going to be here at
2 11:12.

3
4 (Whereupon, a brief recess was taken.)
5

6 **MARCOS HANKE:** Hello, everyone. We are going to start the meeting
7 again, and we are waiting for the rest of the group to sit down to
8 restart, and we are trying to catch up with the agenda, and the
9 next presentation will be the timing on the red hind seasonal
10 closure in Puerto Rico federal waters. Maria.

11
12 **TIMING OF RED HIND SEASONAL CLOSURES IN PUERTO RICO FEDERAL**
13 **WATERS**
14

15 **MARIA LOPEZ:** Welcome back, everybody. This is going to be a
16 presentation collaboration between Graciela Garcia-Moliner of the
17 council staff and our office. The title of this presentation is
18 *Modifications to the Timing of the Red Hind Seasonal and Area*
19 *Closures in Federal Waters Off Puerto Rico.*
20

21 The way that we have this presentation set up is to be very similar
22 to the draft options paper that is included in the briefing book,
23 and so, if it's a little wordy, it's because that's on purpose,
24 and it's because we wanted to get the council familiarized with
25 the text and how it's included in the document, so that, if there
26 is any changes that are needed, we can do it right away.
27

28 I wanted to start this presentation with the issue addressed in
29 the options, and we're also calling this a decision paper, because,
30 once we go through this, the council needs to make a decision of
31 how they are going to move forward or not move forward with the
32 action that we're going to be presenting, and we are including in
33 here the recommendation that the SSC gave the council in July of
34 2021, which is when they presented to the council their
35 recommendations for this action.
36

37 It's to reduce the impact on the red hind spawning stock at the
38 west coast spawning aggregations at the end of the reproductive
39 period, due to a possible shift in the timing of the aggregation,
40 and we decided to put this in here because this sets the topic,
41 like what we are dealing with in the rest of the slides.
42

43 This is a recommendation from the SSC in July of 2021, to shift
44 the dates for the seasonal closure prohibiting fishing for or
45 possessing red hind in or from federal waters west of 67° 10' west
46 longitude and in the area closures prohibiting all fishing in
47 federal waters in the Tourmaline Bank and Abrir la Sierra Bank red
48 hind spawning aggregation areas to December 15 to March 15 each

1 year.

2
3 The SSC noted that red hind spawning aggregations do not form
4 before December 15, but spawning aggregations can remain intact
5 after March 1. To measure the benefits of management measures for
6 the red hind population off the west coast of Puerto Rico, the SSC
7 also recommended the council support implementation of continued
8 long-term monitoring of spawning aggregations. This was presented
9 by the SSC in July of 2021.

10
11 After that, this prompted the council to have a discussion about
12 this topic, and we heard about that in the August meeting, as well
13 as the SSC meeting and the July meeting, which is where Dr. Scharer
14 presented the results of her studies and with other colleagues
15 about the potential shift of the spawning activities for the red
16 hind in the west coast of Puerto Rico.

17
18 During this meeting, the council made a motion that instructed
19 staff to prepare an options paper that would discuss modifying the
20 seasonal closure for fishing for or possession of red hind in
21 federal waters west of 67° 10' west longitude and the seasonal
22 closure for the Tourmaline Bank and Abrir la Sierra Bank red hind
23 spawning aggregations areas.

24
25 Before I proceed, I wanted to clarify what this means, just as a
26 refresher for everybody, and so, right now, there are what we call
27 the seasonal closure for the red hind grouper, and this is for
28 federal waters, and this is a closure that goes from December 1 to
29 the last day of February, and it's west of 67° 10' west longitude,
30 which means that, on the west coast of Puerto Rico, the federal
31 waters are going to be closed to the fishing for and possession of
32 red hind during this time.

33
34 In state waters of Puerto Rico, there is a closure that goes from
35 the same date, and it applies to all territorial waters. There is
36 also seasonal closures, seasonal area closures, in Tourmaline
37 Bank, which is partially in federal waters, and in Abrir la Sierra
38 Bank, which is completely in federal waters, that close all fishing
39 that would occur from December 1 to the last day of February, and
40 so this is what we're going to be talking about in this
41 presentation and in this action.

42
43 To provide a little bit of background on the species of interest,
44 this is the red hind grouper, and the scientific name is
45 *Epinephelus guttatus*, which is one of the most abundant grouper
46 species that are landed by commercial and recreational fishermen
47 in Puerto Rico, and this is why this is a very important species
48 for us.

1
2 Puerto Rico commercial red hind landings, and you can see on that
3 graph that these are the different landings, the average adjusted
4 landings, which means that the expansion factors were applied for
5 the different coasts. In 2019, which is the most recent data that
6 we have, it totaled 48,648 pounds of whole weight, and we don't
7 have any recent recreational landings data reported for the species
8 up to 2017, and I am going to show that in the next slide.

9
10 As you can see from this graph, the top landing areas from 2010 to
11 2019 are the east and the west coast of Puerto Rico. In 2019, the
12 east coast contributed to 49 percent of those adjusted commercial
13 landings for red hind, and the west coast with 32 percent of the
14 red hind adjusted landings.

15
16 This is the red hind recreational landings that we have up to 2017,
17 and we do not have that information by coast, unfortunately, like
18 the other ones, but this will give us an idea of what is the
19 recreational harvest of red hind from 2010 to 2017 in estimated
20 landings.

21
22 Let's continue with a little bit of background for the species,
23 because the biology of the species is what is prompting changes in
24 this action, and so the red hind is what is called a protogynous
25 species, which means that it changes sex to female or male based
26 on some environmental cues, for example social cues, at
27 approximately twenty-eight centimeters fork length, or
28 approximately eleven inches.

29
30 They have a complex social structure and reproductive behavior.
31 They form transient spawning aggregations that follow a lunar
32 cycle, and I added all the references in there, and I am not going
33 to get into details about that, because we have received a
34 presentation from the scientists before, but, if you are
35 interested, here are the references, and that has been linked to
36 when the full moons occur each month in relation to the winter
37 solstice and the summer.

38
39 The reproductive individuals aggregate to spawn in established
40 aggregations in Puerto Rico, and these take place between December
41 and February and, from what we have seen, also into March. In the
42 aggregations, we have the males that arrive first and defend their
43 territories, while waiting for the females to arrive.

44
45 Some other aspects of the reproduction is the female fecundity
46 increases with size, but there needs to be a sufficient number of
47 males to fertilize the eggs. Both males and large females remain
48 at the aggregation after the spawning season before migrating to

1 their home ranges.

2
3 In western Puerto Rico, spawning occurs -- Red hind spawning occurs
4 in aggregations at several sites within loosely-defined areas that
5 are located towards the edge of the insular platforms. For
6 example, we have aggregation that have been identified in Bajo de
7 Sico, Abrir la Sierra, and Tourmaline Bank, and what I am showing
8 in here are our managed areas, and, to the left, you can see the
9 red hind closure that occurs from December 1 to the last day of
10 February, and it includes all the west coast of Puerto Rico. Then,
11 to the right, we have the three areas of Bajo de Sico, Abrir la
12 Sierra, and Tourmaline, and some of them are shared with the
13 territory.

14
15 As I said in there, red hind catches in western Puerto Rico are a
16 substantial proportion of local grouper catches, and very likely
17 depend on healthy aggregations in managed areas, and this actually
18 came from the regulatory amendment, and I believe it's Number 2 or
19 Number 3, from 1996, which is the one that implemented these
20 spawning aggregation closures of Tourmaline and Abrir la Sierra,
21 I believe.

22
23 In the 1990s, red hind in western Puerto Rico show evidence of
24 some overfishing and showed a decline in landings, prompting the
25 enactment of conservative management measures to protect the stock
26 from that overfishing, and that's where all these measures came
27 from to protect the stock.

28
29 This is the background information on the histological
30 information, which is the examination of the tissues and the cells
31 under the microscope, that were obtained from -- What we have
32 looked at in some reproductive tissue obtained from red hind
33 between 2010 and 2017, it provides support for the spawning season
34 period that we have right now, and they have found spawning-capable
35 females from December until February, and a small percentage in
36 March, and this comes from a report that was provided by the DNER
37 lab, and it's unpublished right now, and it's from 2017.

38
39 In these studies, when they were looking at all the samples from
40 the reproductive tissue, the largest proportion of spawning-
41 capable red hind that were found were from December, and they also
42 found early post-spawning individuals in January and in March,
43 from January to March.

44
45 One of the things that we found while we were evaluating the
46 information that we have is that we need additional information on
47 the reproductive potential of red hind in the west coast during
48 the spawning months. I am saying this, because this is very

1 important for the action and for the council to be able to make an
2 informed decision.

3
4 There is also what we heard before from Dr. Scharer and colleagues
5 about long-term acoustic monitoring and surveys of red hind, for
6 example at Abrir la Sierra, have shown that peak aggregations
7 consistently occurred seven to ten days after the full moon, and
8 this comes from a paper from Appeldoorn and colleagues in 2019.

9
10 Research conducted in western Puerto Rico suggests that, because
11 red hind spawning is associated with the lunar cycle, with peaks
12 during the full moon, spawning activities, or behavior, may still
13 be occurring during the full moon, or the new moon, of late
14 February and March, and this was all presented to us during the
15 July 2021 meeting by the researchers, and I'm just stating that in
16 here for our purposes of our action.

17
18 In this research paper, Appeldoorn and colleagues suggest that two
19 spawning events could occur during one lunar cycle, and that is
20 that extended periods of red hind calling activity have been
21 identified in at least four lunar cycles over eight years of
22 recordings at Abrir la Sierra, and these years were 2007, 2013,
23 2014, and 2016, and this indicates that this pattern may be common.

24
25 Now, for our action, March is not included in the current dates of
26 the annual season closure, which, as you know, goes from December
27 1 through the last day of February, or in the area closures in
28 Abrir la Sierra Bank and Tourmaline Bank, which also go, right
29 now, to the end of February.

30
31 A shift in the seasonal closure dates from December 15 to March 15
32 could provide protection to spawning red hind as well as to
33 individuals that remain in the aggregation after spawning, based
34 on that information that has been provided to us by previous
35 research.

36
37 For example, Scharer et al. 2021, and this is the presentation
38 that was given to us in July at the council, discussed that, for
39 63 percent of the past eleven years, red hind were present at the
40 Abrir la Sierra aggregation after March 1.

41
42 Further, this same presentation estimated that the potential
43 aggregation peak could occur outside of the current seasonal closed
44 period for 80 percent of the next ten years, because of when the
45 full moon occurs.

46
47 What we're presenting here is both the histological information
48 and the acoustic and visual census information, which basically

1 complement each other and be available, or are available, so that
2 the council can make an informed decision. If you have any -- If
3 you would like to see further information, on the council website,
4 under the briefing book for the July meeting, you can find Dr.
5 Scharer's presentation that has more details about what I
6 summarized in here.

7
8 This is just -- I am not going to go through all of this, but just
9 to let you know that these are all the management actions at the
10 federal level that have been taken that affect the red hind, and
11 it's starting with the reef fish FMP, which started in 1985, and
12 which is when red hind was added to management as part of the reef
13 fish and grouper unit.

14
15 Then, after that, we have, for example, in 1993, the establishment
16 of the Tourmaline Bank aggregation, from December 1 to February
17 28, and so that means that it has been in place since 1993, and
18 there was the resizing of the Tourmaline Bank in 1996, and then,
19 in 1996 also, there was establishment of the Abrir la Sierra Bank
20 red hind spawning aggregation, and also the establishment of Bajo
21 de Sico.

22
23 There was also, after that, in 2005, a ban on the use of bottom
24 gear in all three areas year-round, no filleting at-sea, no
25 gillnets or trammel nets, and all of this was passed in the SFA
26 amendment, and then that seasonal closure that spans all the west
27 coast of Puerto Rico in federal waters also was implemented in
28 2005.

29
30 Bajo de Sico, which is not part of this action, was changed, and
31 the timing of that closure was changed to October 1 to March 31,
32 and, therefore, that's why this is not included in here, because
33 that potential shift in the aggregation would be already covered
34 under it.

35
36 Later on, in 2012, we have the 2010 amendment, which is the one
37 that established the ACLs and the bag limits for reef fish as an
38 aggregate and the accountability measures, and then now, in 2022,
39 when we have the island-based FMPs in place, there was a
40 rearrangement of the grouper units, and remember that this action
41 is just for Puerto Rico, right, and we're just talking about the
42 Puerto Rico FMP, and there was a specification of ACLs,
43 accountability measures, and there were also some actions -- Sorry.
44 In all of the actions, all of those previous actions that are
45 included in this previous table were carried over into the Puerto
46 Rico FMP, and so they are all effective.

47
48 Based on all of this information, we were tasked with creating

1 some options that will include these potential changes from the
2 seasonal closure.

3
4 Now, I want to do a disclaimer real quick, and not because this is
5 set like this that it means that this is the way to go. This is
6 just an example of what could be. If the council is interested in
7 moving forward, then, once an IPT is formed, they can rearrange
8 anything as the council desires, and so, right now, this is the
9 way that our team decided was a good way of showing how it could
10 look.

11
12 We decided to set it up as two actions, and Action Number 1 is the
13 timing of the red hind seasonal closure and area closures in the
14 Exclusive Economic Zone off Puerto Rico. Option 1 is always
15 included as a no action, and we don't change the seasonal closure
16 date or the area closures for red hind.

17
18 Now we have an Option 2, and we can change the seasonal closure
19 period for red hind in the EEZ off of Puerto Rico, under any of
20 the following sub-options, to December 15 through March 15, and,
21 remember, right now, it's December 1 through the last day of
22 February.

23
24 The way that it is set up, it has three options, and so you can
25 change it for the seasonal closure and the Tourmaline Bank and
26 Abrir la Sierra or you can change it for the three of them, and it
27 doesn't have to be set up this way, but this is the way to look at
28 it more clean.

29
30 Now, in Option 3, we added an Option 3, and note that it has an
31 asterisk, and it says that this option could be further developed,
32 depending on council interest, because some of you requested that
33 what about if the closure is shifted only in certain years. If
34 it's going to be based on the lunar cycle, why not just shift it
35 when that full moon falls within the last part of the month of
36 February, right, and that will encompass some potential spawning
37 activity during the beginning of March, which will not be included
38 in the closure, and so that's why that option is in there, is to
39 change the closure period for the seasonal fishing and possession
40 of red hind in the EEZ off Puerto Rico and/or the area closures of
41 Tourmaline Bank and Abrir la Sierra only for certain years, based
42 on the lunar cycle.

43
44 We added in there pre-identified and codified in the regulations
45 because it is known when these events will happen, and those dates
46 could be already included in the regulations. For example, say,
47 in the year 2023, the closure, the red hind closure, will be from
48 December 15 to March 15, but, for 2024 and 2027, and this is just

1 an example, the closure will be December 1 to February 28.

2
3 This is the way that an option like this could look, and that
4 doesn't mean that it's desirable, but this is an option that could
5 be explored, if necessary.

6
7 If we go to the next slide, I am going to explain what each one of
8 the options would do, and so the first one is no change, and you
9 don't change anything that is going on. This one was established
10 to protect the red hind resource during the identified peak
11 spawning periods in western Puerto Rico.

12
13 Other things are the states are consistent with the December 1 to
14 February 28 red hind seasonal closure in territorial waters off
15 Puerto Rico. However, the scope is different. The EEZ closure
16 only applies to the west coast, while the territorial closure
17 applies to all Puerto Rico waters, including the waters off the
18 other three coasts.

19
20 Both Abrir la Sierra and Tourmaline Bank are closed to all fishing
21 in federal waters during this period. Abrir la Sierra is
22 completely within federal waters, and so there is no overlap in
23 territorial jurisdiction for this area. Tourmaline Bank, however,
24 spans both federal and territorial waters, and there is not a
25 compatible closure regulation prohibiting all fishing in the
26 territorial portion of the Tourmaline Bank. In the territorial
27 portion of Tourmaline Bank, the prohibition is limited to fishing
28 for red hind.

29
30 We are bringing all this up because, when we were looking at this
31 action, we found a lot of loopholes and things that were not
32 consistent between the two areas, which, obviously, as we all know,
33 complicates enforcement and complicates management, et cetera, and
34 so it's important for all of us to bring this to your attention as
35 well.

36
37 For the Option 2, shifting those dates to December 15 to March 15,
38 we set it up as three sub-options. Sub-Option a is the red hind
39 seasonal closure would be shifted for that seasonal closure. Sub-
40 Option b is you shift it in Tourmaline Bank, and/or, right, and
41 you can do the three of them, Abrir la Sierra Bank is Sub-Option
42 c.

43
44 Under all of the sub-options for Option 2, that would allow for
45 inclusion of a later potential spawning peak period that is not
46 currently included in the existing regulations at 50 CFR Part 622.
47 Moreover, a spawning event that occurs during a full moon period
48 at the end of February, or the beginning of March, depending on

1 the year, may not be included in the current dates of the seasonal
2 closure and the seasonal area closures.

3
4 Shifting the dates may provide protection not only to spawners
5 during this period, but also to reproductively-viable red hind
6 that remain in the aggregation after spawning. Shifting the date
7 for the seasonal closure, and remember that these are kind of like
8 pros and cons for this option, which is Sub-Option a, and not for
9 the area closures, would still protect red hind in the closed areas
10 from December 1 to December 14, as red hind would not be allowed
11 to be fished or possessed while the areas are closed to all
12 fishing, because remember the closure in Tourmaline and in Abrir
13 la Sierra is for all fishing.

14
15 Even if you have the red hind closure open, the red hind closure
16 not operating, you still cannot fish for red hind in those places,
17 because it's a ban of all fishing, but fishing for other species
18 in federal waters in Tourmaline and Abrir la Sierra could be
19 allowed during the March 1 to March 15 time period, and this could
20 allow for bycatch mortality of red hind in these areas, right,
21 because they will be fishing for other species, and red hind can
22 still be caught, but that is something that can happen, right, and
23 so we're setting up absolutely everything in here.

24
25 One of the things that you have mentioned before is how this
26 overlaps with Lent, right, and so this is the socioeconomic part,
27 because red hind is one of the species that fishers harvest during
28 this time.

29
30 Now, with all of that said, what we are showing here, in this
31 graph, is the commercial adjusted landings of red hind, averaged
32 by month, for 2010 through 2019 in the west coast of Puerto Rico.
33 As you can see, the highest landings of red hind are reported from
34 August through October, and we're talking about 3,100 to almost
35 3,300 pounds of whole weight.

36
37 March and November show the lowest average landings from 2010 to
38 2019, outside of the red hind closure dates, and so you see the X-
39 axis is the months, and we have January, February, March, et
40 cetera, all the way through December, and so 1 and 2 are January
41 and February, and these are months that the red hind is not
42 supposed to be caught, because these are supposed to be a closure,
43 as well as December, but there is always some red hind reported in
44 the landings, but there is supposed to be zero.

45
46 After those months that are closed, we have March, which is Number
47 3, and November, which is Number 11, are the months with the lowest
48 red hind landings, adjusted landings, for the west coast of Puerto

1 Rico.

2
3 Then, in terms of recreational, these are the recreational landings
4 from 2010 to 2017, by two-month waves, which is how this is
5 reported, and remember that this is not just from the west coast,
6 and we don't have information from the west coast, but this is
7 representative of all of Puerto Rico, and it shows that, in all of
8 Puerto Rico, the highest recreational landings are in the March to
9 April wave, and we are showing approximately 4,300 pounds. We
10 don't know how many of these pounds come from the west coast, and
11 this is only until 2017, and let's not forget that.

12
13 Based on these two graphs that we just saw, shifting the closure
14 to December 15 to March 15, based on what we are seeing on these
15 landings, may not be expected to substantially affect the
16 commercial landings in the west coast, as the average west coast
17 March landings are low compared to other months of the year, and
18 so this is what those landings are showing us.

19
20 It is unknown what proportion of the recreational landings come
21 from the west coast of Puerto Rico and how this action could affect
22 those landings, and so socioeconomic factors, such as a higher
23 demand for fish, during the Lent period could also be included in
24 a future analysis for this amendment.

25
26 When you go to the amendment, or not to the amendment, but to the
27 options paper, there is a table that has all of the pros and cons
28 of the different options, and I didn't include that in here, but
29 I summarized it for you, and we included that in the document.

30
31 This is Option 3, and this is the one that we said that has that
32 asterisk saying that, if the council wanted to develop it further,
33 we can definitely do that, and this is changing the date of the
34 seasonal closure and areas closures during certain years, based on
35 the lunar cycle. We don't have a lot of input in here yet, just
36 because, based on the council's interest, we could look into that.

37
38 Okay, and so this is a slide that shows the commercial adjusted
39 landings of red hind during March 1 to March 15 and March 16 to
40 the 31 for 2010 through 2019. Those yellow circles that you see
41 in there are years where red hind was present at a spawning
42 aggregation west of Puerto Rico in March, per the presentation
43 that we saw from Dr. Scharer and colleagues in July of 2021.

44
45 The asterisk notes when Lent started during the period of March 1
46 to 15, and so, in here, we cannot really see, based on the landings,
47 like a certain pattern of if there are more harvest occurring when
48 the full moon or when the fish were present at the beginning of

1 the year, but what we wanted to show in here is how much harvest,
2 how many landings, occur in different parts of the month, and, if
3 you think about that, you can say, well, if the closure is shifted,
4 then those landings that occur from March 1 to March 15 will be
5 potentially the landings that will not be caught, or fished, during
6 this time. Graciela is going to talk a little bit about this,
7 too.

8
9 **GRACIELA GARCIA-MOLINER:** One of the issues that we're looking at,
10 and data that we were not able to get yet, has to do with the
11 histological examination of the red hind that have been sampled by
12 the DNER in the area, and so we are looking at that data, and
13 hopefully it will be presented to the council at the next meeting,
14 if you decide to move forward.

15
16 Even if the council doesn't decide to move forward, this is
17 information that needs to be brought to the Southeast Fisheries
18 Science Center, to be included in the databases that are provided
19 for examination of these data, and so that sampling that has taken
20 place over the years -- There is information on the -- That could
21 come out in terms of sex ratio and whether the fish were ready to
22 spawn or not, whether they had previously spawned, et cetera.

23
24 Those datasets are part of the mini projects, if you want to call
25 it that, that the council can push for, or ask that they be carried
26 out, and so the data has been collected, and it has been explored,
27 and we're just waiting on the transfer of the information to the
28 council, and we don't know exactly how far along the examination
29 of the samples is, and, if that's part of the problem, that there
30 is no funding to complete that project, that those funds could
31 come potentially from the council and complete the project.

32
33 **MARIA LOPEZ:** Thank you, Graciela. This is the last option, the
34 way that we set it up for purposes of making the council to be
35 able to make some decisions as to how they want to proceed, and
36 this explores an extension of the area included for the red hind
37 seasonal closure in the Puerto Rico EEZ.

38
39 If you have no action, the area where the December 1 through the
40 last day of February red hind seasonal closure, and this is on the
41 west coast of Puerto Rico, federal waters, it will not be changed,
42 and this one states that no person may fish for or possess red
43 hind in or from the Puerto Rico EEZ west of 67° 10' west longitude.

44
45 A potential option, if the council desires, is to extend the
46 application of the annual seasonal closure for red hind to all
47 waters in the EEZ off Puerto Rico. The seasonal closure would be
48 applied during the dates in any of the sub-options below, and it

1 could take place from December 1 through the last day of February
2 each year, in all of Puerto Rico, which is basically just extending
3 the area and not changing the date, and it could take place from
4 December 15 to March 15 each year, which is what we were proposing
5 in Action 1. However, this one will be extended through the whole
6 island, or any other date that the council is interested in doing.
7 I am going to explain each one of the options in the next slide.

8
9 For Option 1, it is not consistent with the scope of the Puerto
10 Rico regulations, because, in the Puerto Rico regulations, they
11 close all territorial waters from December 1 through February 28
12 to all harvest and possession of red hind, not just the areas off
13 the west coast of Puerto Rico, and what has been mentioned before
14 is that, obviously, this complicates enforcement, because you have
15 two different areas that are closed during the same time, or not
16 closed.

17
18 It creates confusion from constituents, and it does not extend
19 protection to the red hind stock in all federal waters off Puerto
20 Rico during the recognized peak spawning period, and, if you
21 remember from the graph before, there is a lot of harvest for red
22 hind -- Most of the harvest for red hind comes from the east coast
23 of Puerto Rico.

24
25 Option 2 would extend the protection to red hind in all federal
26 waters off Puerto Rico and not just to a particular area off the
27 west coast of Puerto Rico, and remember that these were set in the
28 1990s and later in 2005, to protect the aggregations, spawning
29 aggregations, stock, the spawning stock that was in those
30 aggregations identified on the west coast.

31
32 Extending the closure to cover all federal waters off of Puerto
33 Rico would provide additional protection to the red hind spawning
34 stock during the spawning period. Sub-Option a would make the
35 closure compatible with the closure in Puerto Rico territorial
36 waters, which extends from December 1 through February 28, and
37 this is something that I wanted to mention too, because Puerto
38 Rico stops at February 28, but there are some leap years that go
39 through February 29, and so we are adjusting our regulations in
40 the island-based FMPs so that it says the last day of February,
41 and it's not a big deal, but we should probably be consistent, so
42 there is no confusion. Sub-Option b would only be partially
43 compatible with Puerto Rico regulations.

44
45 I am almost done, and then we can discuss, and, if there is no
46 time for discussion, I was just told that we can continue this
47 discussion after lunch, and so I have one more slide. Miguel.

1 **MIGUEL ROLON:** (Mr. Rolon's comment is not audible on the
2 recording.)

3
4 **MARIA LOPEZ:** Miguel is saying just to continue, and then we'll
5 talk about what is the next step. This is a little more about
6 what Graciela just mentioned. We need incorporation of
7 reproductive condition of red hind from the histological data.
8 For example, we need to identify which red hind are in a
9 transitional state, which ones are spawners, post-spawners, et
10 cetera.

11
12 Identification of parameters that affect the aggregations, and so,
13 for example, currents and temperature. Information on
14 aggregations and Boya 4, which is south of the west coast, and
15 this was mentioned in the presentation that we had in July, and
16 this is not currently an area of closure, but this just covered
17 under the seasonal closure that covers all the west coast.

18
19 Information on spawning on the east coast of Puerto Rico from
20 different sources, and that's something that would be interesting
21 to have, and, as Graciela mentioned, most of this information could
22 be just out there, and it's just that it needs to be evaluated and
23 incorporated into this action. Information on connectivity of the
24 different populations, on red hind density, and include fishers in
25 focused research, comparative research, as was mentioned earlier.

26
27 If the council wants to move forward with this as an amendment, we
28 could consider the extension of the closure to protect this, or,
29 if the council wants to task staff to continue evaluating this
30 action, and bring it again to the council's attention, that's
31 something that we can definitely do that, or, if the council
32 doesn't want to move forward, that's another possibility as well.
33 Graciela, do you have something to add regarding the next steps?

34
35 **MIGUEL ROLON:** A couple of things. I am here with Vanessa, talking
36 in the chat and some other things, and this is -- We have three
37 minutes to go until lunch, and this is a very important issue,
38 because it also may have application in other species in the
39 future. Marcos and I were talking, and, taking into consideration
40 what Tony mentioned yesterday, that, because of the pandemic, we
41 haven't been able to talk to fishers one-to-one and eye-to-eye,
42 and, by the way, this is excellent, what you have done, and your
43 staff -- The staff that has worked with this is excellent, and
44 it's probably one of the best summaries that I have seen in an
45 options paper of any of the species that we have worked with.

46
47 Our proposal is to have a couple of workshops with the fishermen
48 in the west coast of Puerto Rico, where we can present this in

1 Spanish and English, and we also can have this posted on our
2 webpage that Christina manages, so that everybody will have an
3 idea of what we're talking about, because, as Maria mentioned,
4 there is need for action within the local area, within the Puerto
5 Rico area of jurisdiction, because, otherwise, it will be a
6 nightmare for enforcement to have a couple of -- In the EEZ, a
7 different set of regulations, a different set of closures.

8
9 Our proposal is for the council members to take this home and read
10 it, the whole document, and, like Maria said, it's on our webpage,
11 and ask the staff to have this series of meetings with the fishers,
12 eye-to-eye, and we can come back to the next meeting and get the
13 feedback from the fishers.

14
15 Don't call it public hearings, because a public hearing -- It's
16 better to call it a workshop, because, at the public hearing, you
17 say what you have to say, and then you shut up and let other people
18 speak, and, sometimes, it's very difficult for the fishermen to
19 grasp all this and be able to have the information they need to be
20 able to contribute.

21
22 Our proposal here is to take this and have it in Spanish and
23 English, and Christina can help us with that, and then have a
24 workshop that Graciela and Maria and myself, and we can work toward
25 having that workshop, between here and the next meeting, and then,
26 at the council meeting, we can have more time to discuss this red
27 hind application.

28
29 Remember that, if we are going to do this quick, remember that
30 quick time for the council is sometimes the same as geological
31 time. When you say something is quick here, it will take two years
32 to implement, and so, if we have this workshop, and let's say in
33 the next few months, or the first month in -- Let's say March or
34 April, and we can have the input from the fishers and come back to
35 the council and explain it to you.

36
37 Also, Graciela has stated all the information that we can get from
38 Virginia Shervette's work and others, and so we can gather that
39 information to submit it to the council, but the most important
40 thing, to me, is to pay attention to what Tony said, and this is
41 an opportunity, hopefully, if Omicron or whatever Greek letter
42 that we will have next year will allow us to have meetings, hybrid
43 meetings, with the fishers.

44
45 Then we can have this information that supports that this is what
46 we need, and this is the information that we have. We can break
47 now for lunch, and maybe have fifty minutes, so we can come back
48 and talk a little bit more about it, but now we have to break for

1 lunch and go, because the people here won't wait for us, but this
2 is important enough that we can have, Mr. Chairman, maybe fifteen
3 or twenty minutes after lunch, and the dolphin presentation can be
4 moved a little bit, so that we can wrap this up for Maria and
5 Graciela to talk about it.

6
7 **MARIA LOPEZ:** Thank you, Miguel. As Miguel said, we'll come back
8 after lunch, and so everybody hold their thoughts on this action,
9 and then we will continue the discussion after the lunch. Thank
10 you very much, everyone.

11
12 **MARCOS HANKE:** Thank you. We will be back here at 1:00, sharp,
13 really sharp, and be a few minutes before. Thank you.

14
15 (Whereupon, the meeting recessed for lunch on December 8, 2021.)

16
17 - - -

18
19 DECEMBER 8, 2021

20
21 WEDNESDAY AFTERNOON SESSION

22
23 - - -

24
25 The Caribbean Fishery Management Council reconvened on Wednesday
26 afternoon, December 8, 2021, and was called to order at 1:00
27 o'clock p.m. by Chairman Marcos Hanke.

28
29 **MARCOS HANKE:** We are going to start. Welcome. It's 1:03. Maria.

30
31 **MARIA LOPEZ:** Welcome back. The only thing that -- This is the
32 last slide, and it was the next steps, and we talked a little bit
33 about it, and it's basically depending on what the council wants
34 to do, if moving forward, or when moving forward, is identify the
35 information requirements and the sources, everything that we
36 discussed before about the scientific, social, and economic
37 information that are needed for this action.

38
39 Then a report on progress at a future council meeting, and then,
40 if the action is going to move forward with an amendment, we can
41 create an IPT, which is an interdisciplinary planning team, which
42 are the ones that are tasked with the creation of the amendment
43 and evaluations, when appropriate for development of the
44 amendment, and that's all, Mr. Chair, if we want to continue with
45 the discussion for this action.

46
47 **MARCOS HANKE:** Okay. We have Nelson and then Tony Blanchard, and
48 I have some lines that I want to read to the group, and then we

1 will keep going.
2
3 **NELSON CRESPO:** (Mr. Crespo's comment is not audible on the
4 recording.)
5
6 **MARCOS HANKE:** Thank you. Tony.
7
8 **TONY BLANCHARD:** (Part of Mr. Blanchard's comment is not audible
9 on the recording.)
10
11 Some fish are still spawning at that point in time, but, if you're
12 going to tell me that you don't have the numbers, we might be
13 shutting down a fishery or extending a fishery for fifteen more
14 days for 1 percent of the fish that is still aggregating.
15
16 The other part of it is the only ones who are going to suffer from
17 this is the commercial fishers, and I am going to remind some of
18 us that I was here at the council about eight years ago, when we
19 went down to Ponce, and there was a situation where we was going
20 to implement some management plans for the ABC, or the Abrir la
21 Sierra and the other ones, the Bajo de Sico, that the fishers
22 hadn't really realized that the management, the regulations --
23
24 (Part of Mr. Blanchard's comment is not audible on the recording.)
25
26 The room was filled with fishers for that public hearing, before
27 the decision was made, and they brought in different fishing
28 organizations, the fishers and their families and everybody else,
29 and they flooded the room, and their cry, at that point in time,
30 was to leave the regulations as-is, because they were living with
31 it, and so let's not forget that, that we went and we invested all
32 of that time at the council level to try to simplify things, which
33 it would have been more complicated.
34
35 At the end of the day, for the lack of the data that we need at
36 this point in time, the only ones here who are going to suffer,
37 once again, is the commercial fisher. We don't have an idea as to
38 how many fish we are talking about that are still in that
39 aggregating mood. To extend the fishery, or to change the fishing
40 days for fifteen days, I say, at the end of the day, no action.
41
42 **MARCOS HANKE:** Julian, I need to put my perspective on the table,
43 and please be very brief in your participation, but go ahead.
44
45 **JULIAN MAGRAS:** I totally agree with what Mr. Crespo and Mr.
46 Blanchard just said. My point is, watching the numbers and
47 everything that was in the presentation, one of the things that
48 popped out, to me, and that sits there with me, is I see that the

1 landings are very high from the recreational fishery, and I think
2 changing the dates would be a nightmare for enforcement and for
3 the commercial fishers.

4
5 What I see is a greater opportunity on cutting back on the harvest
6 of what the recreational fishers are harvesting, and so it's just
7 I'm throwing it out there, and I think it's something that needs
8 to be looked into, that you regulate more on the recreational side
9 than trying to change what the commercial guys are doing for their
10 living. Thank you.

11
12 **MARCOS HANKE:** We have Vanessa pending to speak, but I want to
13 remind the council that this is something that we have to really
14 be mindful. We have work done by the SSC, and some recommendations
15 on that line, and we have data presented by Dr. Scharer to us, and
16 we have some new approaches to address this that we didn't have on
17 the prior that Tony just mentioned to us, and, for example, the
18 shift.

19
20 I don't think this is the moment for a decision yet, and I think
21 it's important, and we are going to keep discussing this and
22 filling the gaps of the information that we need to make the best
23 decision possible, but I want to -- Because we need the balance of
24 this discussion, to have all the points of view and possibilities
25 and facts on the table.

26
27 I want to remind the group about this, and any fish related to a
28 post-spawning activity are not necessarily appropriate for the
29 resource or the best for the population, because they are
30 aggregated there, and they are contained in one area, and that's
31 a risk, and it's something that we have to discuss in the future,
32 how much of that we can tolerate or accept.

33
34 If we don't do that, and we do it in the wrong way, we're going to
35 take the chance that, if you don't have cherry-picking on them
36 very hard now, we can have it in the future, and that's one point.

37
38 The shift allows an opportunity also, and this is very important
39 for Nelson, and the shifting allows, in the future, to open in
40 December for fifteen days, which is the time of the year where the
41 group of deepwater snapper and the red hind are closed, and for
42 the people with the same gear, which is bottom fishermen, they
43 will have access, open access, to this fishery, and they don't
44 have it right now, and they have two closed seasons together, and
45 this is a benefit for the fishing industry.

46
47 Due to the global warming, many aggregations have been documented
48 to be moving later on the year, for many factors that I am not an

1 expert on at all, but I have read about it, and I think this
2 council should evaluate the effect on the aggregations that are
3 not just red hind, but others that take place during the same time
4 of the year.

5
6 Especially, in this administration, there is a big emphasis on
7 addressing, in a proactive way, climate change parameters, or
8 analysis, and considerations. Fishers have another area to fish
9 besides Bajo de Sico and Tourmaline and Abrir la Sierra on those
10 fifteen days, and it's not that -- Depending on what you decide,
11 it's not that they don't have access at all to it, and they may,
12 depending on what we decide, have options, if they want red hind,
13 to fish on some other place.

14
15 Also, it's important to note that most species -- Besides the red
16 hind, there is other important species that can benefit from that,
17 like Nassau grouper, black -- On the protected areas that we are
18 talking about, under a direct consequence of this analysis and
19 decisions in the future, and Nassau grouper, black grouper,
20 yellowfin grouper, yellowedge, tiger, and red grouper, and maybe
21 others.

22
23 I want also to remind the council that the socioeconomic benefits
24 of taking the max recruitment input to the fishing population of
25 red hind, or whatever, through an aggregation, will allow a better
26 availability and sustainability of this resource throughout the
27 year and not just under the risk of a situation of cherry-picking,
28 just going there free during an aggregation, and my points are
29 just trying to make a balance and justifying that all the good
30 points that Nelson brought and Julian brought and Tony brought to
31 the table are important as well as those others, and that's why we
32 need more time on the council to discuss this and to do it in a
33 responsible way, and that's my point, and Vanessa has a turn to
34 speak.

35
36 **VANESSA RAMIREZ:** Thank you, Mr. Chair. Practically, on the same
37 line as we were saying, we have been discussing this issue for a
38 long time, and we have been seeing all the studies that have been
39 made, and we know that this is a moving that we have to do sometime
40 in the next years, but please take care of -- As Miguel suggested,
41 make the workshops for the fishermen and explain to them, face-
42 to-face, the background of the studies that have been made and the
43 why of this situation.

44
45 We know that it's not something that is not in our hands, and it's
46 a Mother Nature change, and, for the sustainability of the red
47 hind, we need to do it, but, practically, because it affects
48 directly the area where I fish, where my boats are fishing, and,

1 because I live in this area, I know that the commercial sector is
2 going to be hard to understand this, and so, please, I suggest, as
3 Miguel says, to start with the workshops, and then, for the next
4 meeting, have this conversation and discussion again. Thanks.

5
6 **MARCOS HANKE:** Thank you, Vanessa. We have to wrap up this item,
7 and I think we have a path going to the future, with a strong
8 record of why we need to go through discussion. We will go to the
9 next item on the agenda.

10
11 **MIGUEL ROLON:** The next thing to do will be to have these workshops
12 and allow the staff to keep working, but do you want to create the
13 IPT or not? What else do you need, Maria, from the meeting today,
14 if anything?

15
16 **MARIA LOPEZ:** I don't think we need to create an IPT right now,
17 and I think we can move forward with the actions that you are
18 saying, collecting information from the public, and then, when we
19 come back to the council with the results from that and any
20 additional work that you would like the staff to do, and then you
21 can decide if you move forward with an amendment, and then we can
22 create an IPT for the action. Jack, I don't know if you would
23 like to comment. Okay, and so I think Jack agrees, right? Okay.
24 Thank you.

25
26 **MARCOS HANKE:** Go ahead.

27
28 **MIGUEL ROLON:** To summarize, just so we're clear, the staff will
29 have a workshop, or a series of workshops, with the fishers off
30 the west coast of Puerto Rico, and then we will coordinate that
31 with Maria, and, after we get that information, we will come back
32 to the following meeting with that report to you, and Graciela
33 also mentioned that they may be able to collect other scientific
34 information, and so, with that, we can wrap it up.

35
36 **GRACIELA GARCIA-MOLINER:** We would request from the Science Center
37 also to collaborate on these efforts with the workshops,
38 specifically to answer some questions regarding the high increase
39 in landings from August, September, and October. I mean, we've
40 known that fish can be much bigger during that time of the year,
41 just because they are preparing for the spawning events, and so
42 they are bigger, and so this is data that might be available
43 through the TIP, or Trip Information Program, that can shed some
44 light into the changes in sizes over time, and we can be prepared
45 to answer questions like that, and so thank you.

46
47 **MARCOS HANKE:** Thank you very much. Kevin, and then we really
48 need to move on.

1
2 **KEVIN MCCARTHY:** Just some logistical questions, because I'm going
3 to need to go back to the Science Center with what the proposal
4 is, and so maybe we can meet separately, if you have a handle on
5 time commitments and if you've got some data analysis ideas, or
6 we're still going to explore that, and I just need to be able to
7 tell my bosses something of what the ask is going to be.

8
9 **MARCOS HANKE:** Miguel.

10
11 **MIGUEL ROLON:** I promise this is the last thing, but, for the
12 record, we don't need that for the workshop. That is for ongoing
13 things, and so you don't have to rush into getting this
14 information, and the workshop really is to do the work, talk to
15 the fishers, have the presentation that Maria Lopez gave here in
16 Spanish, and then let them talk and see what their reaction is.

17
18 You may have all the information that they ask, and have beautiful
19 things to do, but, if there is not buy-in by the fishermen, you
20 are not doing anything, and so if, by pushing fifteen more days
21 into March, you are going to lose the support for the days that
22 you have there, the red hind will suffer too, and so let's take it
23 easy. We will have the workshops, and we will give you the report,
24 and then you will be able to make a decision, and so I suggest,
25 Mr. Chairman, that you stop it here and wait until --

26
27 **MARCOS HANKE:** Yes, and the next one online, the next presentation,
28 is the Outreach and Education Presentation from Alida Ortiz.
29 Alida, my mistake. The next presentation is the dolphinfish,
30 because Dr. Merton has an appointment, and he's going to present
31 first, and then you. The microplastics, we are going to move that
32 to the next meeting.

33
34 **DOLPHINFISH RESEARCH PROGRAM UPDATE**
35

36 **WESSLEY MERTEN:** Good afternoon, folks. It's been four years since
37 I have presented at this council, and so it's a pleasure to see
38 some familiar faces again. Shifting from one important issue to
39 another, and that is what to do with dolphin, in terms of
40 management for dolphin, in the Western Central Atlantic Ocean.

41
42 My name is Dr. Wessley Merten, and I'm the director of Beyond Our
43 Shores Foundation Dolphinfish Research Program. We are based in
44 Newport, Rhode Island, and, really, my objective here today is to
45 try to limit the amount of emotion that I include in my
46 presentation, because this is a pretty charged topic right now, a
47 pretty controversial topic, depending on who you talk to throughout
48 the Western Central Atlantic Ocean and depending on which sector

1 you speak to with regard to what to do, in terms of helping conserve
2 the dolphinfish stock within the WCA for the future.

3
4 With that being said, I am going to present some case studies and
5 some data that we've been collecting around Puerto Rico and within
6 the U.S. Caribbean Sea, as well as the Caribbean Sea Basin, that
7 can lead to some further conversations about this topic.

8
9 I run the Dolphinfish Research Program, which is the world's
10 largest international citizen science mark-and-recapture program
11 for dolphinfish, and so it's designed to collect data with the
12 public, and so to integrate the public into a mark-and-recapture
13 study to collect data on the movements, the life history patterns,
14 and population dynamics of the species, and so this program
15 actually began in 2002, and so we're in our twentieth year of
16 research, and so it's been running for two decades, and we're about
17 to begin our twenty-first year, and so we have a pretty deep
18 history of working with anglers throughout this region.

19
20 Like I mentioned, I am going to provide a comprehensive update on
21 specific data collected through the DRP, specifically for the U.S.
22 Caribbean Sea, and also for the broader Caribbean Sea Basin, and,
23 now, I am very ambitious here, knowing that I only have thirty
24 minutes to do so, and so, basically, what I'm going to do is
25 present three case studies, and I have allocated about seven
26 minutes each, for each one, and we're going to hit that seven right
27 on the dot, right? Probably not, but I am going to conclude, at
28 the end, with issues facing the WCA stock, and I've allocated four
29 minutes for that, and so these timings are something that I hope
30 you guys are lenient on.

31
32 Let's get started with these case studies. Just to kind of point
33 to what these case studies will present, in terms of the data, I
34 put these together based off of questions that Captain Marcos Hanke
35 submitted to me a couple of weeks ago, when he approached me about
36 presenting at the council meeting today, and so one of those
37 questions was with regard to dolphinfish catch and effort at
38 sargassum.

39
40 Obviously, the pulses of sargassum mats throughout the Caribbean
41 Sea is a very controversial topic right now, and so he approached
42 me with a question about catch and effort of dolphinfish at those
43 habitats. Another question that he had was relative to stock
44 connectivity throughout the Caribbean Sea, and so Case Study Number
45 2 will look at movements throughout the Caribbean Sea, with an
46 emphasis on the Dominican Republic, but this case study will point
47 to data that serves to address that question that Captain Marcos
48 Hanke sent me.

1
2 Then the last case study is on dolphinfish landings and fishery
3 dynamics in the Caribbean Sea, and this really kind of addresses
4 the notion of who is landing what, and what is our status, in terms
5 of the amount of landings, for this species throughout the region,
6 and so these three case studies should provide you with a good
7 amount of information, so that you guys can make some rational
8 decisions about the management for this species.

9
10 Case Study Number 1 is catch and effort, sargassum versus FADs,
11 and so each one of these case studies is a manuscript in
12 development, and so, with this first case study, there is six
13 different datasets that we have used to begin to address this
14 notion of catch and effort of dolphinfish at sargassum habitat.

15
16 The National Oceanic and Atmospheric Administration's National
17 Hurricane Center provides paths of different meteorological
18 events, and so this is Tropical Storm and Hurricane Leslie, which
19 occurred from September 22, 2018 to October 12, 2018. It was a
20 unique twenty-day event that served to influence the oceanography
21 and meteorology around Puerto Rico, and, specifically, the north
22 coast of Puerto Rico, from Arecibo to Fajardo.

23
24 During this time, anglers were reporting some of the best fishing
25 conditions and the best abundance of fish in years, and so this
26 storm really kind of served as the episode to kind of look at the
27 influx of sargassum and catch and effort relative to that habitat
28 during this twenty-day event, and so that's Dataset Number 1.

29
30 Dataset Number 2 is looking at the oceanographic and meteorological
31 data from Buoy 41043 that's right off of Old San Juan. This buoy
32 collects general standard meteorological and oceanographic data,
33 and so the top panel just shows the wave period in black, and the
34 wave direction is in gray, and, when the black and the gray lines
35 move away from each other, that's indicating swell energy from the
36 north, and so northerly swells coming towards the north coast of
37 Puerto Rico.

38
39 Now, the bottom panel is alluding to wind direction in black and
40 wind speed in gray. Again, when you see divergence in the black
41 and the gray lines, that is indicating that the wind direction has
42 shifted to the south, and the wind speed is actually decreasing in
43 velocity, and, when you have a long-period swell from the north,
44 and light southerly winds off the north coast of Puerto Rico, those
45 are prime fishing conditions off this coast, and anglers flock to
46 fish during those moments.

47
48 Those are the first two datasets that really kind of set the stage

1 for analyzing additional data that overlay on top of this time
2 period, and one of those datasets is visual census scuba dive
3 surveys, and so, during this episode, we dove FADs, and we dove
4 logs, and sargassum, and we did standardized scuba surveys.

5
6 Just to point to a couple of quick results here, we've been doing
7 these standardized scuba dive surveys since 2016, and, during this
8 episode, this meteorological and oceanographic episode, we
9 observed some of the largest schools of dolphinfish during those
10 standardized surveys, and so up to thirty individuals observed on
11 one dive and twenty-two on another.

12
13 Now, we also have another dataset that we're incorporating into
14 this analysis, which is tagging data, and so we started tagging
15 off the north coast of Puerto Rico, around the FADs, beginning in
16 2015, and so we grabbed the tagging data from 2015 through the end
17 of October 31, 2018, which was kind of the end of this weather
18 event.

19
20 During that time period, there was 392 fish tagged, including this
21 one, during that actual period, and ten fish were recovered. Now,
22 23 percent of all tagged fish were actually tagged during this
23 meteorological event off of San Juan a few years ago. Now, in
24 October, during that episode, we had the highest monthly tag
25 deployments, with fifty-nine fish actually tagged during that
26 time, and so we had an increased amount of tagging activity from
27 a bunch of different participants during this time period, and so
28 that was Dataset Number 4.

29
30 Now, Dataset Number 5 is, during this exact time, we had vessels
31 participating in our catch and effort study, and so we had ten
32 vessels embarking on outings on pretty much a daily basis, between
33 recreational, charter, or small-scale commercial anglers, and we
34 grabbed the trips from September 1 to October 31, during this time
35 period, to examine the catch that they were having during this
36 episode.

37
38 We recorded catch for any species, but really looking at
39 dolphinfish, yellowfin tuna, blue marlin, and wahoo, and then the
40 last dataset, that really kind of brings everything together here
41 to start to address this question of dolphinfish catch at sargassum
42 is incorporating the floating algae index via the satellite-based
43 sargassum watch system, and we collaborated directly with Dr. Hu
44 and Dr. Zhang to look at the data, more so than what is available
45 via the website that everyone can view, and so we actually worked
46 directly with Dr. Hu and Dr. Zhang.

47
48 Now quickly to the results. Now, basically, the main part of the

1 results here is a catch matrix that you can look at and break it
2 down by boat, by week, and whether or not the catch was FAD or
3 non-FAD associated, and so, every catch report that anglers
4 reported to us, they said whether or not they caught the fish at
5 FADs or they caught the fish away from FADs.

6
7 From Week 1 through Week 4, the vessels, during this study,
8 embarked on forty-four trips, of which eighteen resulted in no
9 catch, but then, from Week 5 through Week 9, which was kind of the
10 peak of this meteorological episode, of the forty-seven trips,
11 only three resulted in no catch, and so the incidence of vessel
12 catch per trip was highest in Week 5, and just over half, or 50.5
13 percent, of reported dolphinfish catch occurred in Week 5 and Week
14 8, and so, from vessels that embarked on trips from Week 5 to Week
15 9, each vessel reported their highest catch per trip and, overall,
16 significantly more dolphinfish were caught away and unassociated
17 with FADs during this time period, and these were statistically-
18 modeled results, and so we do have statistical significance with
19 these catch records.

20
21 During this time period, we logged ninety-one trips, and a total
22 of 702 dolphinfish were logged during this nine-week period,
23 twenty-six yellowfin tuna, twelve blue marlin, and ten wahoo. The
24 yellowfin tuna was the only species that was caught in greater
25 abundance at the FADs during this time period. All the other
26 species were caught in higher abundance away from FADs, and
27 presumably at these sargassum mats.

28
29 Now, when you start to look at the vessel effort relative to the
30 floating algae index and the images that Dr. Hu and Dr. Zhang
31 provided, we found matches for the majority of the weeks that we
32 observed this data, and we correlated this data, and so the only
33 matches that we didn't have are the ones that are kind of grayed-
34 out here in Sub-Panel B, Sub-Panel C, F, and G.

35
36 Now, there is a limitation with the model, in that nearshore, close
37 to shore, there is a lower amount of ability for the floating algae
38 index to actually reflect floating algae, and so there is a
39 nearshore limitation with these data, and so, in F and G, clouds,
40 and the lack of nearshore remote sensing data, led to no matches,
41 but, for some weeks, when you do have satellite imagery available,
42 you can actually do more sophisticated models, which, in this next
43 slide, shows the Sub-Panel H, which is Week 8, and this is using
44 an image from Sentinel 2, which is a different type of satellite
45 used than the floating algae index.

46
47 This provides nearshore resolution of sargassum mats, and, within
48 this actual figure, we have recaptures that occurred during this

1 week from fish that were tagged, and the anglers that reported
2 those recaptures also reported those fish being caught at
3 sargassum, and so the point being that incorporating these
4 different datasets can lead to strengthening the floating algae
5 index and lead to actually starting to address the lack of data of
6 catch at these sargassum events within the Caribbean Sea and
7 within the U.S. Caribbean Sea.

8
9 In summary for Case Study Number 1, we had significantly more catch
10 unassociated with FADs during the time period examined, and so a
11 lot of the dolphinfish being reported during this time period were
12 likely being caught in association with those sargassum mats during
13 this time period examined.

14
15 The one negative aspect of our catch and effort model is that we
16 do not ask the anglers for size, because it is really demanding on
17 anglers for them to report size estimates in all of their catch
18 reports. One thing that we have done, to try to rectify this, is
19 they send images of their catch, and so we're trying to incorporate
20 size by getting images, so that we can incorporate size into the
21 catch associated with these trips.

22
23 Now, some of those trips caught upwards of 111 dolphinfish at the
24 habitat that they are fishing, and so it is based on my experience
25 that, whenever you're catching 111 dolphinfish, they're not gaffer
26 dolphinfish. They're not twenty-five or thirty-pound fish, and
27 they are three-to-five-pound fish, probably, predominantly being
28 caught, and not number of fish.

29
30 Coupling remote sensing floating algae index and Sentinel 2 images
31 is promising, but it has its nearshore limitations. The visual
32 census and tagging data are certainly helpful for providing
33 additional observations, which can be used to corroborate those
34 other datasets, and then this is an analytically extensive like
35 episodic approach to small-scale fisheries observations, but it is
36 doable, and so it is doable to look at sargassum coming into say
37 Puerto Rico or coming into the Virgin Islands and trying to
38 quantify what anglers are catching at those sargassum mats.

39
40 There is the possibility of incorporating vessel speed and
41 direction into this type of research, to then model the likelihood
42 that vessels are actually trolling sargassum, relative to these
43 habitats that are coming through the Caribbean Basin, and I would
44 just like to point out here that, off Fajardo, this is actually
45 Captain Marcos Hanke and his vessel activity, and so we do have
46 his catch reports, and, probably compared to his more detailed
47 catch log, we could look at whether he was trolling sargassum lines
48 back then, but you can kind of see some of these images here, these

1 tracks, where these vessels are moving, in a pretty much horizontal
2 direction, indicating that they are likely trolling sargassum
3 lines, and so there's definitely machine learning and other types
4 of really cool analytical techniques that can be used for this
5 research. That was Case Study Number 1.

6
7 Case Study Number 2 is looking at movements in the Caribbean Sea
8 for this species, and so we have established, through scientific
9 papers, that fish are moving from the east coast down to the
10 Caribbean Sea, and we published a paper, back in 2016, that showed
11 these dynamics, but, today, I really want to focus on the Caribbean
12 Sea tagging effort, and so we've had an uptick in tagging activity
13 within the Caribbean Sea over the last several years, and now this
14 zone represents 8.6 percent of our total tagging database.

15
16 We have anglers tagging in Barbados, Guadalupe, St. Barts, Puerto
17 Rico, the Virgin Islands, DR, the Caymans, Cozumel, but, obviously,
18 we're always looking for more people to participate, but the point
19 that I am trying to make though is that we have had more
20 participation, which is good.

21
22 Now, Caribbean Sea movements -- We have eleven satellite tag
23 movements from twenty-two deployments, and all of those fish were
24 revived in situ, and so actually revived in the water and released,
25 which shows that deploying satellite tags is not an easy thing,
26 and there is definitely an art to it, but we have eleven break
27 records, and that is indicated here with the movements here.

28
29 We have ninety days of high-resolution vertical movements, a fifty-
30 six-day location track of a forty-seven-inch bull, and then ninety-
31 nine days of mark-and-report PSAT movements, and so we're gathering
32 more fishery-independent movement data. Now, that information,
33 when you bring and compare it to the fifty convention recaptures,
34 starts to amass to a reasonable movement database for the movements
35 of the species in the Caribbean Sea.

36
37 We have had a fish tagged off of San Juan and recaptured by a
38 commercial longliner off of Charleston, South Carolina after 203
39 days at liberty, and we had -- Actually, Dr. Guy Harvey tagged a
40 fish off of Grand Caymans, a couple of summers ago, and it was
41 recaptured in thirty-eight days off Key Largo, and then we had
42 Captain Collin Butler tag a forty-one-inch bull off of the North
43 Drop, which was recaptured in the Keys after fifty-one days, and
44 then this is a fifty-six-day movement, from a satellite tag, of a
45 forty-three-inch bull that was tagged a few years ago, and so you
46 see that they have, obviously, broad movements throughout the
47 Caribbean Basin and connectivity with many different jurisdictions
48 throughout this region.

1
2 Really, what I want to focus in on here though is the fine-scale
3 data, and so we're going to look at DR, and then we're going to
4 look at, really, the Virgin Islands, actually, for this particular
5 segment, and so first with the Dominican Republic.

6
7 The Sandman started tagging for us on September 18, 2021, and so
8 just over two months ago, and, from September 18 to November 19,
9 they tagged seventy-three fish in eighteen outings. All of these
10 fish were tagged at or near fish aggregating devices. Minimum
11 size was twenty-two inches, the maximum was thirty-one, and the
12 mean, median, and mode was twenty-six inches, and so these are
13 sub-adult fish. These are not fully fecund fish.

14
15 Five of seventy-three fish were recaptured, which equates to a 6.8
16 percent recapture rate, which is a very high recapture rate, and
17 all recaptures occurred at FADs, and so all the reporters, and I
18 communicate with these reporters via WhatsApp, all of these
19 reporters reported that they caught these fish at FADs. They were
20 recaptured three, seven, eight, ten, and fifteen days after
21 release.

22
23 Now, Sandman's 6.8 percent recapture rate is higher than Wam-Jam's
24 highest 5.9 percent and Killin' Time II's highest 5.1 percent June
25 to August recapture rate in the Florida Keys, and that is the
26 location of the largest directed dolphin sector in the region, and
27 so this incidence of a very high recapture rate raises a couple of
28 questions, and it also points to a couple of situations.

29
30 Number one, fishing pressure is extremely high off of the Dominican
31 Republic, and specifically offshore for dolphinfish, if we have a
32 6.8 percent recapture rate from seventy-three fish being tagged.
33 Number two, this raises the question, or the notion, of are FADs
34 leading to horizontal compression of the species movements around
35 the Dominican Republic, and so Molly Wilson, from UC Santa Barbara,
36 published a paper in 2020 that estimated there are 2,500 fish
37 aggregating devices around the coast of the Dominican Republic,
38 and that is a lot of fish aggregating devices, and it could be
39 leading to a false sense of abundance of dolphinfish, if their
40 movements are being horizontally compressed towards those
41 structures.

42
43 Then the third thing that I would like to point out here is that
44 recaptures of dolphinfish at FADs is not just specific to the north
45 coast of DR, and so I would like to introduce to you a forty-
46 seven-inch bull that we caught two-and-a-half years ago off of La
47 Parguera, and so this fish -- This is the most probable track for
48 that forty-seven-inch bull, and we tagged it really off of Cabo

1 Rojo, off the lighthouse, and, during pretty much the month of
2 April, it moved throughout the Mona Passage, and then, for almost
3 the entire month of May, it was active south of La Romana before
4 the fish is recaptured at a fish aggregating device, and so this
5 was a very unique event.

6
7 Obviously, gathering geolocation estimates is something that we're
8 trying to do with our tagging program, and it is hard to do, and
9 it's also very rare, but it has now happened, for a fish to be
10 recaptured with a satellite tag, and so we got back the entire
11 dataset here, and so we get a lot of really cool vertical movement
12 data, which I am not going to present, obviously, here, but I would
13 just like to make the point that this tag left the hands of
14 artisanal commercial fishermen in Puerto Rico and ended up in the
15 hands of artisanal fisheries in the Dominican Republic, and so it
16 points to connectivity between fishing communities, and also this
17 species is being caught at FADs in pretty good frequency.

18
19 Now over to the Virgin Islands, so Fishing Vessel Family Ties was
20 extremely active in our tagging program from January 9 of 2018 to
21 August 20 of 2019, and they tagged 372 fish during that time, in
22 a total of fifty-seven outings, and most of those tagged fish were
23 actually tagged near FADs, and so public FADs that the United
24 States Virgin Islands has deployed.

25
26 The minimum size is twelve inches, and the maximum is forty-inches,
27 and the mean is twenty-three, and the median and the mode are
28 twenty-four inches, and so sub-adult fish, and they're not fully
29 fecund. Now, nineteen of those fish tagged were recaptured, or
30 5.1 percent is the rate, which is another high recapture rate.

31
32 Some of the information that we gathered from this is some of the
33 first return migrants to the North Drop region, and so "DAL" stands
34 for days at liberty, and so we had some of the fish obviously being
35 recaptured within just a couple of days of being released, and
36 others being recaptured up to a month later, and then several
37 actually coming back and being recaptured 2.5 to six months later,
38 and so, previous to giving this talk, I didn't pull the growth
39 estimates for those 200-day and 135-day fish, but there is probably
40 substantial growth with those individuals, and I could pull it up
41 after the talk.

42
43 Also, that yellow dot is a fish recaptured by Collin Butler that
44 was tagged in Florida that was at large for 210 days, and so all
45 of this data is pointing to the fact that fish are being caught
46 and tagged at fish aggregating devices in pretty good frequency
47 within the U.S. Caribbean Sea, and the Dominican Republic as well,
48 and we have broad connectivity patterns between the east coast,

1 between the U.S. Caribbean Sea, and throughout the Caribbean Basin.

2
3 Now, just to summarize this case study, the highest recapture rate
4 by a tagging team in the DRP over a seasonal window for DR, and
5 this is what we just observed recently. Tagging and recaptures
6 all occurred at FADs in DR, and the average size was twenty-six
7 inches fork length, and so you're not getting a big fillet out of
8 the fish when you fillet it, and it's not a fully mature, fully
9 fecund fish.

10
11 Satellite tag recovered at a FAD south of Isla Saona, Dominican
12 Republic, and that was in the spring. Now, a high recapture rate
13 and short-term return migrants were observed off of the North Drop,
14 and so those return migrants point to the fact that, if you release
15 a small fish in these waters, the return migrants show that they
16 are coming back, and so there's a potential for small fish to come
17 back as bigger fish when they are released.

18
19 FADs are prevalent and increasingly referenced as reported tag and
20 recovery sites in the Caribbean for the DRP over the last several
21 years, and so this is the -- This is Guadalupe, and I didn't do an
22 in-depth analysis of this angler that participates with us, but
23 this is all his vessel tracking data for the past several years,
24 and it looks like four or five years, and we've got 476 fish that
25 he has tagged in a hundred different outings.

26
27 Most of the fish are tagged at FADs off of Guadalupe as well, and
28 you can see, by this vessel tracking data, it's very direct. This
29 angler is heading out of port and going straight to specific points
30 and moving between those points.

31
32 I can show you other data from the west coast of Puerto Rico that
33 the anglers just disperse everywhere, because they don't have FADs,
34 and so the point I'm trying to make here is that FADs are
35 increasingly being used, and they're increasingly being deployed,
36 and the mean size of the fish being caught at these FADs is small,
37 and twenty-three inches for Captain Julian Brassall out of
38 Guadalupe. That's end of Case Study Number 2, and I think I'm
39 going pretty good with time. I don't know, and I haven't been
40 paying attention. Am I doing okay? Yes? Okay. I will keep going
41 before they stop me.

42
43 Case Study Number 3 is landings and Caribbean Sea fishery dynamics,
44 and so we've got forty-three jurisdictions that arguably all land
45 dolphinfish throughout this region, and whether or not they report
46 is another question. Robin Mahone, Dr. Robin Mahone, someone that
47 I have never met, but has done some amazing work on dolphinfish,
48 published a paper in 1999 that looked at the Caribbean Sea and

1 dolphinfish fisheries.

2
3 One of the figures from his manuscript is Figure 3, and so what
4 we've done over the last eighteen months is attempted to update
5 Dr. Mahone's work from the past, and so we extended out his Figure
6 3, using the FAO landings data for dolphinfish, really looking at
7 the main countries that have been reporting since 1950, but we
8 also incorporate other countries that are now reporting
9 dolphinfish landings.

10
11 With looking at just these particular nations, and this is for
12 directed dolphinfish landings, 3,000 metric tons is the average
13 for these nations throughout this time period, but, when you
14 incorporate all other nations that are now reporting since Mahone's
15 work, we're seeing pretty much a spike in catch, and an increase
16 in catch, from these other nations reporting, and now we're seeing
17 directed commercial landings of 6,000 metric tons.

18
19 I presented this information to the South Atlantic Fishery
20 Management Council about a year ago, because they are also
21 considering management and conservation measures for dolphinfish
22 as well, and so this is just the figure cleaned up, with some of
23 those nations depicted in color, and you have some interesting
24 patterns here.

25
26 The yellow in the middle of that plot is Mexico, and so I don't
27 know what has happened to Mexico's reported dolphinfish commercial
28 landings, but it's non-existent anymore, and they have a very large
29 EEZ, and so I'm not sure if they are landing commercial fish or
30 not or if another nation is now actually landing that fish for
31 them or something, and so lots of interesting fishery dynamics
32 occurring within the Caribbean Basin, and that is one that I want
33 to point out from this figure.

34
35 The Dominican Republic has been increasing in their directed
36 commercial landings reporting over the last several years, and,
37 within this same figure, the U.S. commercial directed dolphinfish
38 fishery was larger back in the mid-1990s and late 1990s and has
39 been decreasing since then, really ever since that time, but, now,
40 when you look at the recreational sector, you actually see what
41 the largest sector for directed dolphinfish landings is within the
42 Western Central Atlantic region, and that is the U.S. Gulf of
43 Mexico, South Atlantic Bight, Mid-Atlantic Bight, and New England
44 recreational sectors.

45
46 In this plot, the yellow, indicated here, is the U.S. commercial
47 fishery, which has been decreasing in size since the mid to late
48 1990s, to the end of this time period, which was 2018 that we

1 looked at this data, and so the red and the yellow nations are the
2 nations that are actually reporting dolphinfish landings, and so
3 they were actually giving estimates to the FAO.

4
5 The black nations are the nations that are not reporting any
6 landings to the FAO, and we do not have any estimates, really, for
7 many of these nations for the recreational sector, and so there is
8 a lack of data on dolphinfish landings throughout the region, but,
9 since Mahone's work, we've actually seen longline effort double
10 within the actual jurisdictions within this region, and so this is
11 actually the number of hooks set.

12
13 I grabbed this data from the ICCAT data, and so this is the number
14 of hooks set within national jurisdictions and the number of hooks
15 set outside of national jurisdictions from 1956 all the way through
16 2018, and, since Mahone's work, we've seen effort double within
17 national jurisdictions and quadruple outside national
18 jurisdictions, and so this points to the fact that, obviously, we
19 have a lot more longline fishing effort throughout the region, and
20 then the question becomes what is the incidence of bycatch of
21 dolphinfish associated with that activity. It's a number that
22 nobody has presented.

23
24 One way to start to address this lack of information, or even start
25 to get a ballpark of what is being caught incidentally, or not
26 reported, is to look at other types of indices, such as coastal
27 and oceanic-grouped fish, and so this is a figure showing the
28 countries that are not reporting dolphinfish, and there are coastal
29 and oceanic take, and, on the scale, on the Y-axis, it's landings
30 in metric tons, and so there's a lot of fish that are being grouped
31 into these kind of ambiguous groups of coastal and oceanic fish.

32
33 Again, what is the proportion of dolphinfish associated with these
34 designations, or these groupings, and, since Mahone's work, we've
35 actually seen seven nations that have recorded an increase in
36 what's called the UIM category, which is the unidentified marine
37 fish category, and so those nations include Haiti, Jamaica, the
38 Cayman Islands, Panama, St. Barts, St. Maarten, and Turks & Caicos,
39 and so Haitian landings have increased fourfold within that UIM,
40 unidentified marine fish, category, while the Cayman Islands and
41 Jamaica have increased 48 percent and 40 percent, respectively.

42
43 Quite a bit of fish is being reported, but it's being grouped into
44 unidentified marine fish, or it's being grouped into coastal or
45 oceanic groups, which we are able to actually discern what
46 proportion of that is dolphinfish, and it's likely that it's
47 probably a pretty good proportion, given the broad connectivity of
48 the species throughout the Caribbean Basin.

1
2 This is countries reporting dolphinfish and their coastal and
3 oceanic landings, which have been increasing through time, but
4 these nations are actually reporting dolphinfish, and so we know
5 what proportion of those landings it is.

6
7 Then another aspect of this case study was looking at The Sea
8 Around Us, and so Daniel Pawley's group at UVC, and they have
9 reconstructed dolphinfish catch, and they have reconstructed catch
10 for a lot of different types of fisheries throughout the world.

11
12 What we did is we looked at the SAU, and so Sea Around Us,
13 dolphinfish reconstruction for the commercial sector and for the
14 recreational sector, and we also looked at the SAU reconstruction
15 for UIM-identified fish, and, in most cases, or, basically, in the
16 only case that there wasn't a difference between the reconstruction
17 and the reported to the FAO, or to the MRIP, was for the U.S.
18 recreational sector, and so the SAU and the MRIP estimate were
19 pretty much spot-on, but, when the SAU reconstruction was compared
20 to the FAO commercial dolphinfish catch, the SAU catch was higher
21 during the time period, and so pointing to the fact that there is
22 likely misreporting going on with some of these catch reports being
23 submitted.

24
25 That points to the comments that I just made about the SAU and the
26 FAO commercial catch and the MRIP data, and so, right here, I can't
27 see that, because there's a little thing there, but, in one
28 particular year, it was 2,634 metric tons higher for the SAU
29 commercial estimate than the FAO estimate, the point being that
30 reconstructed catch was 39.4 percent higher than the reported catch
31 from 2000 to 2016 and 18 percent higher over the entire time
32 period, and so the landings data we're getting is likely an
33 underestimate of what is actually happening.

34
35 Then here is just the UIM category, SAU versus the FAO, and one
36 time it was 2.7 times higher, but the UIM estimates are on the
37 order of 67 percent higher throughout the entire time series, and
38 so this is just pointing to the fact that there is a lot of
39 uncertainty about landings of dolphinfish throughout the region,
40 and it's something that we need to rectify and improve upon, and
41 it needs international cooperation, and it needs attention from
42 fishery councils, such as the Caribbean Fishery Management
43 Council, as well as the Gulf Coast Fishery Management and the South
44 Atlantic Bight and the Mid-Atlantic Bight and the New England
45 Fishery Management Councils.

46
47 The last part of this case study is looking at the final part of
48 this table, and it's a complex table, but the SAU data allows us

1 to look at recreational estimates for landings at international
2 locations, and, when I did this analysis, and when you combined it
3 with the reported commercial landings for 2016, total dolphinfish
4 direct catch was 12,000 metric tons, of which 68 percent was
5 estimated to be recreational catch, and that really is a pretty
6 staggering look at how this sector, and this part of the region,
7 is generally a recreational fishery.

8
9 When you compare landings in the eastern tropical Pacific Ocean,
10 it is -- The lion's share is, obviously, commercial catch over
11 there. In the Western Central Atlantic, it is different. The
12 recreational sector is the largest landings sector, and that also
13 affords the opportunity for it to be the biggest sector to make an
14 impact on the conservation and management of this species.

15
16 In conclusion, lack of data on and at fish aggregating devices in
17 the Caribbean Sea and at sargassum events -- Obviously, you guys
18 are aware of this, but it is evident, and I want it to be a part
19 of the record, and, generally, small, sub-adult fish are less than
20 twenty-four inches fork length, and about 50 percent maturity, in
21 terms of maximum fecundity, are being caught at FADs.

22
23 The high recapture rate in the Dominican Republic really leads to
24 the question of are FADs leading to horizontal compression for
25 dolphinfish, where you have high FAD densities.

26
27 Continuing here, we have inconsistent regulations on the same
28 stock, despite transient evidence. The stock is connected. It is
29 connected throughout this region, and so it should be managed
30 accordingly. It should be managed as a connected stock. Quality
31 data on the recreational fishery is lacking, yet there is an
32 increase in the fishery.

33
34 We have unknown indirect harvest in longline fisheries, and we've
35 seen a doubling and a quadrupling of effort inside and outside of
36 national jurisdictions. We have virtually no landings data from
37 sixteen nations, a lack of bycatch data, and so what proportion of
38 WCA dolphin catch is made up of bycatch? If it's larger than the
39 recreational sector, then we really have a problem.

40
41 Increasing demand in major seafood markets, and so we're doing
42 restaurant work here in Puerto Rico, and the people that we work
43 with in restaurants are always searching for dolphinfish, and
44 there's price issues with dolphinfish here, and there is increasing
45 demand within the U.S. market and on this island. High discard
46 mortality, and we need to promote the use of circle hooks, and so
47 U.S. directed commercial longliners need to use 16/0 circle hooks
48 in their longlining effort, and so, when recreational anglers are

1 bailing dolphin, one of the most impactful conservation measures
2 they can impart is to use a non-offset circle hook during that
3 bailing action, and so, when they're drifting with a school and
4 catching small fish, they should be using circle hooks.

5
6 We need to eliminate the perception of resistance to overfishing,
7 and so let them go and they will grow. The 2.5 to six-month return
8 migrants off the North Drop, those are growing fish. Those are
9 fish that are highly fecund now, after being released, and they're
10 coming back into the system.

11
12 Lastly, we have this underappreciation of the multinational
13 distribution which fragments data collection and management for
14 this species, and so that, folks, is a laundry list of issues
15 facing the WCA dolphinfish stock, and I am sorry if I went over
16 time, but I will take any questions at this time.

17
18 **MARCOS HANKE:** Thank you very much. Like always, that was a great
19 presentation, and thank you for answering most of the questions
20 that Carlos Farchette and I sent to you, and I think we should
21 evaluate how we are going to address the continuous influx of
22 sargassum that is opening the opportunity for overharvest of
23 juvenile dolphin.

24
25 I think we are in a position to address that, and we have better
26 information now, and, in the future, we have to evaluate that,
27 especially for the recreational sector, and a question that I have,
28 just to make sure that it's very clear on the record, is what is
29 50 percent -- Twenty-four inches fork length is 50 percent of the
30 fish are mature.

31
32 **WESSLEY MERTEN:** The maximum fecundity, and this is coming from
33 back in 1999, and so Dr. Hazel Oxenford published a paper, back in
34 1999, on the biology of dolphinfish in the Western Central
35 Atlantic, and it was a review, and so her dataset, which is in the
36 Panel B for the line plots, shows kind of frequency of mature fish,
37 and so the percentage of the frequency of those mature fish, and
38 then the size of those fish, and so, based off of her data, twenty-
39 four inches fork length was where 50 percent of the fish were
40 mature, and that is maximum fecundity maturity.

41
42 Now, the top pane is for Puerto Rico, and the sample sizes weren't
43 quite as high, and so the Barbados data, in terms of replicates,
44 might be stronger, but the 50 percent maturity was a little lower
45 for Puerto Rico, and we're looking at anywhere from -- It says
46 about 500 millimeters here, where you've got about 75 percent
47 frequency of mature females observed in those samples, but you
48 have a pretty small sample size there, and you have like nine

1 individuals that they looked at.

2
3 The point being that we should be allowing these fish to reach a
4 larger size maximum fecundity before they are harvested, and we
5 should get anglers away from the notion that, once they are able
6 to reproduce, we should catch them, and so we should let them
7 mature before harvest.

8
9 **MARCOS HANKE:** Thank you for advancing what I was trying to get
10 to, and there is two main points. One is that a fast-growing,
11 fast-reproducing -- A few inches on the measurement means much
12 more reproduction for that fish that will support the population.
13 Number two, we don't have the use, in Puerto Rico, of dolphin as
14 a deep-fried whole fish, or the little fillets are not valuable,
15 and we are not creating any problem to the use of the meat as it
16 is right now by regulating and being proactive in favor to the
17 dolphinfish and creating a rationale behind for a minimum size for
18 them. This is a discussion for the future, but it's something
19 that I want to stress to the group what I think, and I would like
20 to hear from the council. Carlos.

21
22 **CARLOS FARCHETTE:** Thank you so much for that presentation. You
23 know, I've been doing a little bit of homework on St. Croix about
24 the dolphinfish, and there's a lot of concern from fishermen, both
25 recreational and commercial, and I'm sure in Puerto Rico and St.
26 Thomas/St. John.

27
28 I've been hearing, anecdotally, that they have some concerns about
29 the overharvesting of juveniles, and so our local fisheries
30 advisory committee on St. Croix have been discussing a size limit
31 for mahi and for wahoo, but, now that you mention twenty-four
32 inches, the Golden Hook Club, when they have tournaments, their
33 minimum size is thirty-three, and anything smaller than that has
34 to be released and tagged, if they can tag it, and so I was coming
35 here almost prepared to make a motion for a minimum size on mahi,
36 and maybe even wahoo, but mostly mahi for right now, but maybe I
37 would like to go back and have a little more discussion before I
38 do that, but I am definitely going to try to move forward, and I
39 am really -- Since we're moving to island-based fishery management
40 plans very shortly, I am going to be really speaking more about
41 St. Croix, and we are considering having a strict bag limit for
42 the recreational take of mahi, and we're looking at numbers like
43 five and fifteen, five per person and fifteen per boat.

44
45 Anything other than, you tag and release, or just release, and
46 this idea, or this notion, that some of the fishermen that I've
47 been hearing saying that they pass through these same sargassum
48 weed lines and the little mahi, the little two-pounders, or one-

1 pounders, are so greedy that they don't even give the bait a chance
2 to go down for the bigger ones, and then I tell them, well, move
3 from that area. If that's all you're catching, move away from
4 that and fish somewhere else and see if you can find the bigger
5 fish.

6
7 I think I would like to go back before I come to the council with
8 a motion to try and do something in the EEZ, because, for St.
9 Croix, our waters are so close to shore, 2,000 feet and half-a-
10 mile from shore, that we also would have to work with the
11 Commissioner to have a minimum size, and also a bag limit, for the
12 territorial waters for St. Croix, because you can catch that
13 species that close in.

14
15 I know that Puerto Rico and St. Thomas have a much bigger shelf,
16 and so they have to go out further to get to the deep waters, and
17 I'm not sure what they intend to do, but -- Miguel. I saw you
18 raise your hand, and so I don't know if --

19
20 **MIGUEL ROLON:** I was raising my hand, and don't worry. By the
21 way, Dr. Merten, excellent presentation, and I always read your
22 papers and everything, and I'm glad that you have a PhD from Puerto
23 Rico, and that's a feather in your cap.

24
25 I was going to mention three things. We have been working with
26 the dolphin at the international level for a long time. Actually,
27 Hazel and I worked together with Dr. Hunt, and we started this
28 idea of having a Pan-Caribbean management of the dolphin, because
29 you have a grab-it fishery, and a grab-it fishery is when each
30 country grabs whatever they can, and the next country does the
31 same, and then there is no coordination, and so we were worried
32 that, even though this is a short-lived animal, we may be able to
33 wipe them out of the fishery, where we're not careful with it.

34
35 There are three regions, let's say, governance regions, the local
36 governments, like Puerto Rico and the Virgin Islands, the federal
37 government, and international, and those three have to work
38 together to be able to manage the dolphin wahoo in a proactive
39 manner, in a very effective manner.

40
41 From the presentation of Dr. Merten here, you have seen that his
42 information -- Actually, I love that satellite tracking that you
43 did with these animals all the way to the Dominican Republic, but,
44 also, Dr. Mahone, the presentation where he got all the information
45 from across the Caribbean, and he wished to demonstrate who is
46 reporting and who is not.

47
48 At the WECAFC level, we are going to have something that we

1 postponed, and it's a flyingfish and dolphin wahoo working group,
2 and, actually, I told you already, some time ago, that Marcos and
3 you are probably the best representatives from the U.S. delegation
4 that will be working together at that meeting.

5
6 That meeting will be in person, and, because it will be in person,
7 we have to postpone it. We, the WECAFC group, have to postpone
8 it, and so the council can ask the staff to start working together
9 on this information, and you don't have to rush into any motion at
10 this time, but the local governments -- You can use this
11 information and establish your own quota.

12
13 The thing about the dolphin wahoo is that you have two issues of
14 allocation and then the conservation of the animal. One country
15 cannot do the conservation that you need to protect the animal and
16 to make sure that the biological parameters are followed and that
17 you fish at the time that they are sexually mature, but you have
18 a buffer before that, and so this presentation you can use as a
19 roadmap, and so the government of the Virgin Islands -- You can go
20 ahead and work on whatever is appropriate, in your case, the quota
21 or whatever, and, if you go before the council, then that can be
22 also used at the time that we discuss compatible regulations,
23 because, in Puerto Rico, it's the same.

24
25 In Puerto Rico, we have discussed with Puerto Rico for a long time
26 allocation issues, commercial and recreational. Recreational
27 wants to fish for them, and they don't want the commercial to fish
28 it, and the recreational use it for socioeconomic purposes, and
29 then the recreational fishermen go to the market, flood the market,
30 and the price goes down, to the detriment of the economy and the
31 commercial fishers.

32
33 In essence, I believe that this presentation here could serve as
34 the basis for following this, and so the council can have --
35 Actually, you can ask the staff, Graciela and Maria, not to rush
36 into this, because we have, as you know, a lot of priorities that
37 Maria mentioned this morning, but at least to have some time
38 consideration for the information that you need, and 2022, probably
39 the last part of 2022, we will be able to move forward with this,
40 and the local governments can use this information to move forward
41 if you want right now, if that's what you want to do.

42
43 In order not to drop the ball on this one, we would like to hear
44 from the council what is your pleasure, what would you like to do
45 with this information for the next 2022/2023 period.

46
47 **MARCOS HANKE:** Along the same lines, and I have you, Julian, and
48 this is not a vote, and there is not a motion, but I want --

1 Because I am here in the room, and there is other people virtually,
2 and I'm pretty sure that these questions that I am going to make
3 now are going to give you some guidance of how deep we already
4 understand the problematics.

5
6 Is there anybody in opposition to consider a management to protect
7 or to address the overfishing or the extra pressure on juveniles
8 of mahi, considering the problem of the sargassum and everything
9 that we spoke, and is there anybody that has any consideration
10 that is not in favor to consider and to address this problem?
11 There is a silence in the room, and everybody, probably, is
12 interested to address that, and that's point number one.

13
14 Point number two is I want to -- Miguel, you mentioned the white
15 paper, and what is the process to start the white paper? Is it
16 just instruct the staff to go ahead with it?

17
18 **MIGUEL ROLON:** (Part of Mr. Rolon's comment is not audible on the
19 recording.)

20
21 One thing that you could do is to write a letter to the local
22 governments to move forward with the dolphin wahoo, and then they
23 can use the information to start considering with the process that
24 they have, and that's something for the local governments to do,
25 and the council can help with that information, if you want, but
26 it's all entirely a decision by the local government.

27
28 Second, the difference between somebody asking the difference
29 between the white paper and the options paper, and the white paper
30 is just to collect the information that you have, the background
31 information and all the information that you have and bring it to
32 the council. The options paper has the options that you have for
33 management, and so, at this time, clearly what you need is the
34 information, and it could be the presentation that you have today,
35 the information that Dr. Merten has already, through different
36 organizations, and we can pull that out and use it.

37
38 Probably, by the end of 2022, we will have an opportunity to
39 discuss this a little bit further, and, if you want to discuss it
40 in the summer, that's fine, but it's an idea, and we can send a
41 letter to the two local governments, or just, if you don't need
42 the letter, because the commissioner is here, and Damaris is here,
43 and so they can make a note and discuss it at your own pace, if
44 you deem it necessary to discuss it.

45
46 In summary, I believe that, from the presentation here, I don't
47 think that anybody is opposed to help this fishery by protecting
48 the small animals, and that's something that can be promoted. The

1 management plan that is being considered -- Not being considered,
2 but will be considered again by WECAFC will include all that
3 information.

4
5 Number one, the CFMC will promote Pan-Caribbean management of the
6 species, and that's one of our charter goals and objectives, and
7 we will assist the WECAFC with the next meeting of the working
8 group, and we will invite Dr. Merten and Marcos to participate, to
9 give us the same information that we have here, and we will
10 probably invite Dr. Mahone and Hazel, and those are the three --
11 The three people that I just mentioned are the top authorities
12 right now on the dolphinfish.

13
14 Again, the council can wait for maybe an options paper sometime,
15 and Graciela and Maria can figure out the schedule, making sure
16 that we don't trip over the things that we are doing now, but at
17 least we have something that the council is considering.

18
19 Then the local governments can make a note, and, for the next
20 meeting, you can tell us an update of what's going on, in terms of
21 the schedule that you have and whether you would like to do it or
22 not. The issues to be discussed are allocation and the biological
23 parameters that we can protect to make sure that the fish reach
24 the age where they can reproduce, the size they can reproduce, and
25 also to have a buffer and not to fish right at the time that they
26 become sexually mature, because that will not cut it.

27
28 In addition, Puerto Rico has a component that is different from
29 other islands, and we have two species, one in the north that comes
30 from North Carolina and reaches Puerto Rico and the Virgin Islands
31 and another one from the south that -- We call it dorado, or mahi-
32 mahi, because we copied that from Hawaii, but there is two
33 different species, and they have different strategies and
34 biological histories, and they are different. That is my
35 suggestion, Mr. Chairman.

36
37 **MARCOS HANKE:** So it will be on the record that the staff will
38 work on this and collect all the information, and I need the
39 participation of people, and please go very, very fast. I have
40 Julian and then Tony and Maria and Carlos, and then we will end
41 this. I'm sorry. I have Julian, Tony, Nelson, Maria, and then
42 Carlos.

43
44 **JULIAN MAGRAS:** I would like to start off by saying excellent
45 presentation. To get straight down to the point, back in 2017,
46 the fishery advisory committee for St. Thomas/St. John, which, at
47 that time, I was the vice chair, we had a meeting with the
48 recreational and commercial guys that were fishing for wahoo and

1 dolphin.

2
3 We held that meeting at the Frenchtown Community Center, and, at
4 that meeting, at that point, we all determined that there needed
5 to be a size limit for both of the species and a bag limit for
6 both commercial and on the recreational side. With that said, it
7 was presented to the council in 2017, on the size and bag limits,
8 but it has not been implemented, and it's something that we can
9 request that fishery advisory committee now look at, but I also
10 can speak with my members of the fishermen's association, and we
11 would be willing to host a meeting, again, with the commercial and
12 recreational sector, and gather as much information as we can to
13 help with this process.

14
15 Maybe even increasing, now that we have seen this presentation,
16 and if you can share that with me, and maybe even increasing the
17 size limit by a couple of inches, and so I just wanted to put that
18 on the record out there. Thank you, and one last thing is I think
19 it would be great, for both the fishery advisory committee and the
20 DAP committees, to come up with the suggestions for findings.
21 Thank you.

22
23 **MARCOS HANKE:** Thank you. We have Tony, Nelson, Maria, and Carlos.

24
25 **TONY BLANCHARD:** I would say the same thing that Mr. Magras just
26 said. I think that we could start working on it right now, but,
27 since we don't have any authority in territorial waters, we need
28 to start -- I think we need a size limit and a bag limit,
29 specifically for the recs, but we do definitely need a size limit
30 across-the-board.

31
32 **NELSON CRESPO:** Thank you, Mr. Chair. Excellent presentation, and
33 this is a great opportunity to request again to the local
34 government to reevaluate the bag limit of the recreational fishery
35 for the mahi-mahi, and, in order to protect these fisheries on the
36 commercial sector, and, also, I request to this council to
37 evaluate, like Tony says, and start working with this as soon as
38 we can, and evaluate the possibility to implement a size limit and
39 a bag limit for recreational, too. Thank you.

40
41 **MARIA LOPEZ:** We received the task from you, and we will be adding
42 that to the list of actions to take care of, and I think this is
43 one of the things that can be also addressed through the
44 implementation plan from the strategic plan from the council,
45 because, over there, the priorities can be set up. I mean, the
46 council can always decide if this is a big priority, just to speed
47 the process, and then just give us some guidance on what we should
48 be doing first.

1
2 Another thing is that this is very important, and this is exactly
3 what we wanted to do, in terms of we just were bringing this
4 species to management, the pelagic species, and this is what you
5 wanted, and so there is -- Obviously, once the species are in the
6 plan, now is when we have to start implementing measures for the
7 conservation and management of these species.

8
9 The last thing that I wanted to mention is that, for that
10 flyingfish and dolphinfish working group, as part of the WECAFC,
11 the U.S. has a delegation in our office, the Southeast Regional
12 Office, and it's represented in the U.S. delegation, as well as
13 our colleagues from Headquarters, and so we will be participating
14 in that meeting too, because the objective is that we need to
15 manage these resources that share boundaries, and so we will be
16 participating in that as well with the council. Thank you.

17
18 **CARLOS FARCHETTE:** I just wanted to clarify something, because I
19 didn't want you all to misstate that, because I said the Golden
20 Hook Club has a minimum size of thirty-three inches for you to
21 land the fish for the tournament -- I am not saying that it has to
22 be thirty-three inches, but, from what I have been gathering for
23 information on St. Croix, between twenty-seven to thirty-three
24 inches, so that we have something to play with, and I'm glad to
25 hear Miguel and Maria mention WECAFC partners, because I did have
26 that on my notes to talk about, are the WECAFC partners working
27 with us, because, without everybody on the same page, I don't think
28 we're going to get very far with this.

29
30 Also, working on the same page, I know that the VI government can
31 actually sign-off on something faster than the federal government
32 can, but we also need them -- We need to work together, because
33 the fish have no borders, and so, when you catch the fish and
34 you're going to land it, that's where the problem comes in. If
35 you're going to land it in St. Croix, and we have regulations,
36 what are you going to do with it, and you can't come in with it,
37 and you're going to go somewhere else, and so I think we all need
38 to come up with a plan at the same time. Thanks.

39
40 **MARCOS HANKE:** This is a wrap-up, because of timing, and not
41 because of lack of interest, and I think the record, at this level,
42 right now is very clear that we want to do something, and it's
43 important to do something, and the science is there, and the desire
44 is there, from all sectors.

45
46 The staff will address the priorities and the timing on this, and
47 we're going to rely on them, and, Dr. Merten, thank you very much,
48 and we're going to keep in touch further on this effort, and the

1 next presentation is the Outreach and Education Report, but, before
2 that, I want to recognize the presence of Ricardo Rivera, Director
3 from the Department of Agriculture of Puerto Rico.

4
5 Thank you very much for being present here. Also, --. Thank you
6 very much for being here, and something very important is that
7 this effort is way more productive when other agencies like
8 agriculture and different personnel of DNR are supportive of the
9 work that we do at the council level, and we encourage you guys to
10 keep coming to the meetings and supporting our efforts.

11
12 (The next comments are not audible on the recording.)
13

14 **MARCOS HANKE:** There is a technical problem for the virtual people.
15 Hold on for a second.
16

17 **OUTREACH AND EDUCATION REPORT**

18
19 **ALIDA ORTIZ:** Good afternoon, everyone. I think it's almost
20 evening, but we are okay. I will make my report on the Outreach
21 and Education Advisory Panel, the materials that we have discussed
22 in our last meeting in November, but, also, we are going to present
23 the ideas that came out of that meeting and that Roberto Silva and
24 Ricardo Rivera and Nelson are going to help me, and Vanessa, with
25 the idea of school for new fishers.

26
27 One of the important things, at this time, is that Marine Resources
28 Education Program that has been giving workshops throughout Puerto
29 Rico and the Virgin Islands, even though they were not able to do
30 that since 2019, I think, but there will be one in August of 2022,
31 and the Outreach and Education, as part of their steering
32 committee, will have a meeting with them and work on the content
33 of that workshop, and so you will know when in August it is going
34 to be, and then the fishers will participate.
35

36 Also, we have been taking part in many, many webinars, because
37 probably -- I believe it is because of the pandemic situation, but
38 a lot, a lot, a lot of information is being developed through
39 webinars, and 2022 is going to be the year of artisanal fisheries
40 and agriculture. We have been taking more information on the
41 impact of sargassum on fisheries, on MPAs, for sustainable
42 fisheries, climate change, and fisheries and fisheries management
43 in the Caribbean.
44

45 I have participated in those webinars and taken notes and got in
46 contact with the people that are organizing them, because we think
47 that this is very important information for our outreach and
48 education activities.

1
2 One of the activities that we have been working, and should be
3 finished by probably next week, is remember the calendar for 2022
4 that was going to be dedicated to the MPAs in our Caribbean region,
5 and this is a way of giving the public in general contact with the
6 importance of the MPAs, not only for fishers, but also for
7 conservation, for protection, of different species for tourism,
8 and so the 2022 calendar is all on MPAs, and it has mainly the
9 MPAs that are under the council jurisdiction, and those are in the
10 EEZ in Puerto Rico, St. Thomas, St. John, and St. Croix, and then
11 there is information of what happens there, and it will be ready,
12 I hope, by probably next week or something like that, because it
13 has been set up already, and it has several months dedicated to
14 the protected areas, mainly the ones that the Caribbean Council
15 has under its jurisdiction, but also one or two of the local MPAs,
16 because fishes don't know who manage them, and so we have to take
17 into account all the protected areas.

18
19 The other material that we have worked, and I think we showed you
20 very, very briefly in the past meeting, is the recommendation that
21 the panel gave that some of these issues, like ecosystem-based
22 fisheries management, to all the fishers and consumers should not
23 be put only in big documents, but in illustrated documents, and so
24 we have been working on some type of -- I will call it a comic
25 book, but it is not a comic book, and it's illustrations. The
26 materials are illustrated, and this is what we have right now.

27
28 Notice that all the topics, and there was questions that were sent
29 to people to check them and to see if they had any meaning to the
30 public, and the responses that we receive, and we decided on the
31 text, and notice that all the illustrations are -- These are from
32 Paco Lopez, who is the graphic artist that does most of our work,
33 and, in each one of those questions, there is a fisher, and it can
34 be a fisherman and a fisherwoman and what they are doing, with the
35 idea that, in the ecosystem-based fishery management, the human
36 being is one of the very important components of that cycle, of
37 that ecosystem.

38
39 They see that their connection between what happens on the shore
40 or on the mountain, but it goes to the water, to the sea, where
41 the fishers are working, and whatever happens in that coast is
42 going to impact the marine environment.

43
44 Our next product that we have been presenting, little by little,
45 but it's very, very close to finished, and we hope that, by
46 January, it will be totally complete, and that is remember the
47 Sustainable Seafood Consumption Campaign that was going to end
48 with a recipe book, but a recipe book with the local underutilized

1 species, and, here, we have six chefs and collaborators that have
2 given us their recipes, or the traditional recipes, and then these
3 are the illustrations, and Sea Grant is doing the final product.

4
5 It will be in Spanish and English, and it will be something that
6 the person in the kitchen can have it, and, if they want it in
7 English, they have it one side, and, if they turn it on the other
8 side, it will be in Spanish, with the information, and we have
9 illustrations of the fishes, but also the plates and also the
10 nutritional facts of that recipe. Here is a very special one, and
11 do you recognize that, Carlos? This is Carlos Farchette's recipe,
12 and so we will know how to make it and what it tastes like, and it
13 has -- Also, you see the nutrition facts, and so you will find
14 that it is very nutritive.

15
16 Then there are other recipes from chefs who are very well known in
17 Puerto Rico, but also very simple cooking, and we want that species
18 to be on the table, following what we have in our history,
19 following the way we cook things, and so this one from Cedric
20 Taquin, who is also a fisher, and he has given us very good
21 information on especially the wahoo, and it's one of the species
22 that he prepares very, very good.

23
24 Lionfish, also. Wanda Pantojas, who is also part of the
25 contributors to the book, in terms of nutrition and health and
26 safety of the fish, and she's a professor at the University of
27 Puerto Rico in Carolina, but also a very, very good cook.

28
29 We will have other products with that, because we want to take the
30 same information with the species that are underutilized and use
31 it also for the schools, because we went to some of the schools,
32 and we gave information, and we gave a workshop to the students on
33 the marine ecosystem, the marine fishery ecosystem, of the
34 Caribbean, but that has to have something that they can work with,
35 and not just a text, and so one of the new products that we will
36 have will be that underutilized species for educational purposes.

37
38 You have seen this before, and we are about to finish, and Miguel,
39 I think, has sent it to be printed, the MPAs of St. Thomas/St.
40 John. The next product on this area of MPAs is going to be the
41 same approach, and it doesn't have to be exactly the same font,
42 but the same approach for the MPAs in St. Croix and for the MPAs
43 in Puerto Rico, and this is not only the MPAs in the jurisdiction
44 of the council, but we also have information on the MPAs that the
45 territorial government manages.

46
47 Also, the placemats have been very, very popular in Puerto Rico,
48 and they was a great demand for them, and the one in St. Thomas

1 will be the same, and this is -- There is one poster and one fact
2 sheet with the same information, and it has two pages on both
3 sides, and then they have a placemat for the local restaurants and
4 another placement for the restaurants where the tourists eat.

5
6 These are the projects, the initiatives, that we are following for
7 2022 to 2025, and this is something that was discussed at our
8 meeting in November, the 8th and 9th, and so we will have to produce
9 island-based fishery management plan fact sheets and infographics
10 and all kinds, all sorts, of materials for the public, and it will
11 be for each one of the island-based, one for Puerto Rico, one for
12 St. Thomas/St. John, and one for St. Croix, and we will be working
13 with probably Chapter 5 in each one of those management plans, so
14 that we can distinguish the species that are being managed, and
15 some were taken out of the old management plan, but there are new
16 species in the new plans, and so we will produce that, and Maria
17 will be a great help with that product.

18
19 It will take -- I have to run the fact sheets and infographics,
20 but it can also be posters, and it will take any way that it is
21 attractive to the public, that you can put it in the restaurants,
22 and you can put it in the fishing area, that you can put it in the
23 fishing villages where the species are sold.

24
25 Then MPAs is a very, very important issue, especially with the
26 Thirty-by-Thirty program, where they want to expand many of these
27 areas, and, actually, on February 9, and I don't know whether it's
28 going to be -- On February 9, we will have an MPA symposium in San
29 Juan, and you will hear about that, and there will be people from
30 Puerto Rico and from the Virgin Islands and from the rest of the
31 Caribbean, and I think there is also someone coming from Hawaii to
32 share with us their experiences in MPA management and also on the
33 importance for the fisheries.

34
35 We are working on the illustrated booklets and the illustrated
36 booklets that I think I showed you the first one already, and there
37 is another one on climate change and another one on the MPAs in
38 the U.S. Caribbean.

39
40 This is now probably the most important issue that was discussed
41 in our Outreach and Education Advisory Panel in November, and it
42 is the great need in our region for new fishers and for fishers
43 that are going to substitute all the spaces that are being left
44 out, and the development of schools, the development of training,
45 of workshops, to bring people into the fisheries, and, with that,
46 we will very closely with -- Vanessa Ramirez gave us a
47 presentation, or not a presentation, but she told us what was being
48 done in the area of Cabo Rojo, and, today, we have here Roberto

1 Silva and Ricardo Rivera and Vanessa that I really would love to
2 have them add to this.
3
4 **MARCOS HANKE:** We are going to have the representative of the
5 Department of Agriculture, Ricardo Rivera.
6
7 **RICARDO RIVERA:** (Mr. Rivera's comment is not audible on the
8 recording.)
9
10 **MARCOS HANKE:** Thank you, Ricardo, and for sure this first
11 conversation right now is on the record, and we encourage you and
12 your staff and Alida to communicate, because I think, more than
13 being the same, they complement each other, and one has more of an
14 educational element to it, and the other one has more of a
15 practical element to it, in terms of the execution in the field
16 from your department, and both can complement each other, and I am
17 pretty sure that that will work out very well. Thank you.
18
19 **ROBERTO SILVA:** (Mr. Silva's comment is not audible on the
20 recording.)
21
22 **MARCOS HANKE:** Go ahead, Alida, and I wanted the group to be aware
23 that we still have a lot of presentations coming up, and you are
24 going to see that I was going fast, and now I am going to go even
25 faster. Go ahead, Alida. Nelson, but go faster than faster.
26
27 **NELSON CRESPO:** (Part of Mr. Crespo's comment is not audible on
28 the recording.)
29
30 Not only in Cabo Rojo, but, everywhere we can, we must have one.
31 Every year, the percentage of all fishermen increased, and we don't
32 see that amount of young blood that we need to maintain the
33 commercial fishery working as we want, and I guarantee you that,
34 if we go to the field, we're going to find more people interested
35 to get into the commercial fishery than we think.
36
37 Every time I know a young guy interested in commercial fishing, I
38 just make an approach to him and try to guide him the best way
39 that I can to make him a profitable fisherman, and one example of
40 that, or one suggestion, that I have for the commercial fishermen's
41 school is in the west coast of Puerto Rico, especially in my town,
42 in Rincon, we have one of the best wooden boat constructors that
43 I think is on the island, and maybe like an incentive for the
44 fishermen, and maybe we can develop a program that this guy --
45 First, we have to make the approach to this person, and, if he
46 agrees, we can make an approach to the people who are interested,
47 so he can teach them how to build it, and, when they finish, the
48 student can keep it to start to develop his work.

1
2 Alida, I really appreciate, and Roberto appreciates, all the
3 efforts that you are putting here, and to Vanessa, to develop the
4 commercial fishermen's school in Puerto Rico.

5
6 **MARCOS HANKE:** Alida, go ahead, because we have many things, and
7 you have still some slides, correct?

8
9 **ALIDA ORTIZ:** Yes, and so our specific areas for outreach and
10 education are the ecosystem-based management plan and the fishery
11 ecosystem plan, to get that information to the fishers, to the
12 public, and, also, each one of the island-based management plans,
13 and we will keep with the sustainable fish consumption, and we
14 will have activities where the book will be presented, where the
15 recipes will be cooked, and then we will keep working with the
16 marine protected areas, and so this is what we have for 2020 to
17 2025. Now we have Christina.

18
19 **CHRISTINA OLAN:** Good afternoon. I am Christina Olan, and I work
20 with the Caribbean Fishery Management Council, as the social media
21 manager, and I will be presenting some updates for what we have in
22 social media, and I will be very brief.

23
24 As I have been mentioning before in other presentations, we have
25 a Twitter, Facebook, and Instagram accounts, and there are some
26 numbers of our amount of followers, and most of our followers are
27 on Facebook and Instagram, and Twitter is not -- If you have a
28 Twitter account, please follow us.

29
30 The content that we mostly share to our social media platforms is
31 related to seasonal closures, meetings, workshops, educational
32 materials, videos, content produced by other organizations and
33 agencies, local and federal both, and the CFMC monthly bulletin.

34
35 We have new collaborations with Mavel Maldonado that will be
36 contributing to preparing the contact list of fishers and fish
37 markets in St. Croix, and Nicole Greaux already is helping me with
38 interviews of fishers in St. Thomas/St. John for the CFMC monthly
39 bulletin, and Ruth Gomez and I also agreed to share content of the
40 St. Thomas Fishermen's Association.

41
42 This is an example of a bulletin, and the bulletin is also
43 distributed through email and WhatsApp. We also produce the Repaso
44 de PEPCO, that is based on the materials that Wilson presents
45 during the PEPCO workshops, and we do that every week. You already
46 met Ita yesterday, and Jeanette, and we were working on five videos
47 about recipes that you can cook at home of species that are
48 considered as underutilized or that are not the most common in the

1 restaurants, but are good for your consumption and you can prepare
2 at home.

3
4 This is new, and, also, Marcos Hanke has been working very hard on
5 producing information regarding new opportunities for deepwater
6 squid fishing, and we have been sharing this information through
7 our social media platforms.

8
9 The council is also participating on a regional campaign that is
10 called Big Fish, and, through Big Fish, one of the things that we
11 did was compile the contact information of all fishing villages
12 and fish markets in Puerto Rico, and this information is names,
13 phone numbers, and emails and physical and postal addresses, and
14 we have already this information, and this information is also
15 available for our partners in the DNER and Puerto Rico Sea Grant
16 to help in the distribution of publication to reach more people
17 and have a shared database for outreach and communications and
18 education efforts.

19
20 We already included those phone numbers in the WhatsApp list that
21 Wilson manages, and so more fishers are now involved and receiving
22 more information through that list. For WhatsApp, Wilson in Puerto
23 Rico manages the list in WhatsApp, and I prepare the messages that
24 he is sending through the contact list. In the case of the USVI,
25 I am happy to also collaborate if you want that in the USVI.

26
27 Thanks to all of our collaborators and all the staff at the CFMC
28 and to the council members and everybody, and I am very happy with
29 all the feedback that I have been receiving, and, also, I have to
30 mention that we have been receiving a lot of inbox messages in
31 Facebook and Instagram, and it is very good, because it helps to
32 keep communicating with the fishers and also producing content.

33
34 For example, last week, we have fishers that we were asking us
35 about the vermilion snapper and different common names in Puerto
36 Rico, and so we created this post to answer them and the
37 information that they were requesting, and also to allow them to
38 comment and contribute with the information that they have as
39 fishers, commercial and recreational.

40
41 If you have questions, please let me know, or ideas, and I will be
42 around throughout this meeting, or you can contact me through email
43 or the social media platforms. Thank you.

44
45 **ALIDA ORTIZ:** Thank you, Christina. I think now we can hear the
46 reports from the liaisons, and they will be very, very short, and
47 so we will have Wilson first.

**REPORTS BY LIAISON OFFICERS
PUERTO RICO**

WILSON SANTIAGO: Good afternoon. For those who don't know me, my name is Wilson Santiago, and I am the Puerto Rico Fisheries Liaison Officer, and so I have been like a year-and-a-half of being a liaison.

In 2021, in my participation as a liaison, we have brought the educational program for commercial fishers, and we named it PEPCO, and, in the pandemic, we couldn't make it in-person, and so we met virtually. In our participation, I have support from the CFMC, from Christina Olan, from the posts of the Repasa de PEPCO, and the Repasa de PEPCO is topics from the educational program for commercial fishers, and so we have been supporting Christina with that.

I have been participating in the MREP committee meetings for the 2022 fishers' workshop in Puerto Rico, and, like Christina said in her presentation, we have sent out weekly educational posts via WhatsApp. With that participation, we keep on supporting the fishers with their issues and information of the DNER for state and federal closures, and we have been doing educational materials for the fishers and fishing communities around Puerto Rico, and this is new, and we have started with an educational program for recreational fishers in Puerto Rico, and so I am going to talk more about it.

For the educational program, PEPCO, of commercial fishers, from February 17 to March 17, we have presented the virtual program, and we made five different sections every Wednesday, and we've had the participation of forty-one fishers around the island, in the five stations. For all the participants that completed the five sessions, we send them, via mail, via post mail, educational materials that the Sea Grant program gave to us and the CFMC and DNER and TNC, and TNC helped us by paying for the shipping of the mail. All of them that completed the program, we sent them a certificate of completion.

For the educational program for recreational fishers, just a quick background. In 2018, the program was developed by the NOAA Coral Reef Conservation Program, through the fisheries liaison, Helena Antoun, and DNER, as a means of addressing adverse impacts to coral reefs for recreational fishing activities. Healthy fisheries is equal to healthy reefs.

The program was developed with the collaboration of recreational fishers and DNER personnel. The DNER, CFMC, and NOAA are

1 collaborating together to bring a workshop to the fishers. This
2 is a picture of the virtual program, and the first one we gave was
3 August 19, and the topic was the recreational federal and state
4 laws and regulations, and we had forty-two participants. In the
5 second model, we had it on October 28, and the topic was regulated
6 marine species in federal and state waters, and we had twenty-two
7 participants.

8
9 We will keep on coordinating three or four more modules that we're
10 going to bring to the fishers with different topics, and we're
11 going to start again between January and February of 2022, and I
12 want to thank Helena Antoun, and she is the one that had the
13 initiative to create this program, with all the collaborators, and
14 Christina Olan for her support with the recreational program and
15 the commercial program and with anything else.

16
17 For Puerto Rico marine protected areas, just quick, we have a total
18 of forty-four MPAs that DNER manages in Puerto Rico. In the second
19 bullet, you can see a website, and, over there, you can go to the
20 web and find an interactive map, and you can find that as
21 management plans, and there is a lot of other good material for
22 the MPAs for the Puerto Rico jurisdiction.

23
24 I recommend to the council that, for further meetings, if you want
25 to know more about the MPAs in the Puerto Rico jurisdiction, I
26 recommend that you invite Ms. Coralís Ortiz and Ms. Clarimar Díaz
27 from the Office of Zona Cosanera in the DNER, and so, if you want
28 to invite them, we can contact Damaris, or I can contact them, to
29 see if they can come and talk about more of the MPAs in Puerto
30 Rico.

31
32 Here is a map, and I got it from the website, and it's a map with
33 all the protected areas in Puerto Rico, and there is a lot of
34 marks, because we have more in the middle of the island, but,
35 around the island, in the coast, we have forty-four of them
36 protected.

37
38 This is a list, and you can't see it very well, but it's a lot of
39 information, and there are all the names of the protected areas,
40 marine protected areas, and there's a lot of natural reserves, and
41 some of them are marine reserves, the year that they were
42 designated as a reserve, and the size. If you need this document,
43 just contact me and I will send it to you.

44
45 Here are the names of the MPAs that we have management plans right
46 now, and some of them are completed, and some of them are in draft,
47 and some of them are in process, and some of them are approved,
48 and here are the names of them. These are the ones that DNER has

1 management plans right now.

2
3 Here are some photos of the educational programs that used the
4 MPAs, and so, in the federal jurisdiction, we all know that we
5 have the Tourmaline Bank, some parts of Tourmaline Bank, the Bajo
6 de Sico, and Abrir la Sierra.

7
8 For the Puerto Rico fishers' issues, the DNER has been resolving
9 the issue with the commercial fishing license, and so the fishers
10 in Puerto Rico are receiving their commercial license, and, if not
11 the department is communicating with them, and we have fixed that
12 issue.

13
14 Another issue is the new fisher misinformation about the fishing
15 closures and statistics reports, like e-reporting, the electronic
16 reports, license and permits for state and federal waters in Puerto
17 Rico for this, starting in January, and we going to coordinate a
18 workshop every month around the island for this matter.

19
20 Another issue is there is low enforcement to watch the closures
21 and illegal commercial fishing and recreational fishing in state
22 and federal waters, and fishers need support with different funding
23 opportunities, like funding from the Department of Agriculture and
24 other funding that is available.

25
26 My next step, in 2022, like I said, I am planning to coordinate a
27 workshop of the commercial program, educational program, one per
28 month, and we are continuing the recreational program in the next
29 year. We will continue supporting the CFMC social media, and we
30 will find more information about the management plans of Puerto
31 Rico MPAs at the DNER office. Find out and support fishers in
32 their issues, visiting fishing villages and fisher communities.
33 Visit fishing villages and fishing communities around the island
34 and giving educational materials. If anyone has any questions,
35 and I know we are going quickly, and here is my email, and you can
36 -- I am going to be around here, or you can call me or send me an
37 email. Thank you.

38
39 **MARCOS HANKE:** Thank you, Wilson. The next liaison officer, and
40 please be brief, and we have three other presentations.

41
42 **ST. THOMAS/ST. JOHN**

43
44 **NICOLE GRE AUX:** Good afternoon, everyone. My name is Nicole
45 Gre aux, and I am the liaison for the St. Thomas/St. John area, and
46 this is my report that I am going to try to get through as quickly
47 as possible.

1 2021 has been a very challenging year for us, by means of local
2 fishery outreach. We have been contending with things like a
3 staffing shortage at the St. Thomas DFW office, which makes a lot
4 of the officers there sometimes unavailable or deep into doing
5 other research projects to try to take time out of that to
6 communicate with me.

7
8 We had the mandated restrictions that were still going on for
9 gatherings in 2021, and a lot of our fishermen here prefer to meet
10 in-person, as opposed to virtually or conducting through messaging
11 or email, and we also had the issue with overtaxed DPNR enforcement
12 officers wearing many hats and doing many things, especially
13 regarding the COVID regulations. Thankfully, all of these issues
14 have been rectified in the positive, and we are looking forward to
15 2022 being smooth.

16
17 Some of the activities that have been going on in this year have
18 been my visits three-times a week to the different fish vending
19 sites. One of the things that I am really proud of is our Joseph
20 P. Bryan Fish Market now has water available to the fish cleaners
21 and the fishermen, and that was a bit of an annoyance, since the
22 water was either turned off or unavailable to the fishers to keep
23 the area clean, and that has now been rectified, and I do water
24 availability checks, and so that's also a very good thing, to make
25 sure that we are consistent with keeping the water flowing for
26 these fishermen that utilize that particular fish market.

27
28 There is more communication with the Division of Fish and Wildlife
29 in regard to new studies that they are putting out and also
30 projects and programs that they have coming up for 2022, and the
31 thing that I am most interested in, and happy to be a part of, are
32 the interviews with our fishers here in the Virgin Islands, on St.
33 Thomas and St. John, to be highlighted with the Caribbean Fishery
34 Management media platform that Christina touched on earlier in her
35 report.

36
37 The Sustainable Seafood Initiative was also a large part of our
38 education and outreach program. On this particular slide, you
39 will see some of the information in the seasonal closures that I
40 utilize when I am visiting the restaurants that are going to be
41 taking part in our Reef Responsible Sustainable Seafood Program,
42 and the middle slide is a picture of two very large haemulons, and
43 those are my favorite fish, and this is also a part of the project
44 that we're using for giving people new ideas to use underutilized
45 species, and that last slide is what our gorgeous, glorious fish
46 markets look like on any given Wednesday or Saturday at some of
47 our various fish markets, and so our underutilized species are not
48 so much underutilized, and we do have underutilized markets, but

1 we do have lots of things that we prefer to eat, as far as our
2 reef fish are concerned.

3
4 The next few slides will be about our MPAs, or our marine protected
5 areas. There are three different types of management for our
6 marine protected areas, federal, the Virgin Islands government,
7 and comanaged.

8
9 Here are some examples of the federal and the government managed,
10 and so we have the national park, the Coral Reef Monument, the
11 Hind Marine Conservation District, and the Grammanik Bank. The
12 U.S. government has Cas Cay, Compass Point Marine Reserve, Frank
13 Bay Marine, and the St. Thomas East End Reserve, and that is
14 probably the largest area of conservation and preservation that we
15 have currently that's under USVI government management.

16
17 This is an example of the different areas of both marine protected
18 areas as well as areas of particular concern. St. Thomas and St.
19 John has eighteen marine-managed and marine protected areas, and
20 the largest one, represented in 5 and 7, happen to make up the St.
21 Thomas East End Reserve.

22
23 The St. Thomas East End Reserve is governed and also utilized by
24 many different agencies that do educational research, as well as
25 citizen science projects, and so the STEER management council is
26 very, very important, as far as protecting this particular area is
27 concerned. As I mentioned earlier, it is highly utilized by every
28 single recreational availability that we have here, from tours to
29 educational purposes, and also to the fishers for bait capture.

30
31 VI EPSCOR, I am very, very much in admiration of this particular
32 program, and it stands for the Virgin Islands Established Program
33 to Stimulate Competitive Research, and VI EPSCOR is one of our
34 largest contributors to everything from emerging areas of
35 research, especially dealing with seagrasses and the sargassum in
36 our shallows, and there are studies being conducted through the VI
37 EPSCOR by not only Dr. Kristen Grimes, but also Mr. Cruz-Rivera
38 and also Mr. Ganai for very, very thorough research on the
39 seagrasses that are invasive and also the sargassum and how they
40 affect our shallows.

41
42 The Virgin Islands Marine Advisory Service, this is something that
43 is also really wonderful, and this program not only allows citizen
44 scientists to get involved in their natural environments, but
45 there's a program called Ocean Explorers, which helps children in
46 the Virgin Islands, every summer, learn a bit more about their
47 surrounding environment and also how to become stewards of our
48 environment, and so this particular group raises awareness about

1 our natural resources.

2
3 I want to thank everyone for being available to me whenever I have
4 questions on anything concerning my education and outreach, to
5 Christina, and also to Alida, for being there to help me out when
6 I have issues and problems with any sort of products that I would
7 like to bring, and also to Wilson Santiago for being available to
8 both myself and to Mavel when we have questions. That's it for my
9 report. Thank you very much.

10
11 **ALIDA ORTIZ:** Mavel.

12
13 **ST. CROIX**

14
15 **MAVEL MALDONADO:** I am Mavel Maldonado, and I am the new CFMC
16 liaison for St. Croix, and this is my first time being in this
17 meeting, and I'm going to do just a brief description of myself.
18 Again, my name is Mavel Maldonado, and I have been part of the
19 fishing industry for over fifteen years, enjoying the different
20 aspects and creating wellbeing for the fishing community, and I am
21 so happy to be part of this community and being involved with them
22 has given me like more knowledge, knowing how this community works,
23 and I have more respect for them, and it helps to find ways to
24 better serve them.

25
26 It's been a great experience so far, and thanks to the fact that
27 I have a good relationship with the department and have that --
28 That is allowing me to be able to assist the fishers. I have been
29 a liaison since June, and so, for the past few months, I had the
30 opportunity to speak to my fellow fishers and listen to them and
31 to their concerns.

32
33 Always it's when will some of the closed areas be back open to go
34 fishing, and then they have been sharing their mixed feelings about
35 the new changes, like the new -- Everybody now is able to apply
36 for the new commercial fishing license for 2022, and, like I said
37 before, it's mixed feelings, and some agree, and some don't, but,
38 hey, we've got to deal with it.

39
40 Now we have a new, and my husband is a fishermen, and so now we
41 have a new place to sell fish, and it's called the La Reine Fish
42 Market, and all the fishermen are able to be there, and they are
43 happy, because they have a way to sell fish in a more organized
44 way. Also, here in St. Croix, we have different vending sites,
45 and they are like private location, and they are kept clean.

46
47 Going back to like the La Reine Fish Market, the only concerns
48 that they have is they have like more enforcement, so the place

1 could be kept more clean, and always, when you have someone in
2 authority, to be able for other people to see it, they can apply
3 the rules and regulations and make them follow it. For the past
4 year-and-a-half, things have been hard for the fishermen, due to
5 the pandemic, but they are happy now that stuff -- Even under the
6 circumstances, it's getting back to normal.

7
8 This slide is a list of MPAs in the U.S. Virgin Islands, and I am
9 going to go through only like the island of St. Croix, and we have
10 the marine protected areas, like Buck Island Reef and Salt River
11 National Historic Park, and its governing institution is the MPAs,
12 or the other one for the Salt River is the MPAs and the VI
13 Department of Natural Resources, and it has been established since
14 1992.

15
16 Going down to the territorial marine parks, we have the St. Croix
17 East End Marine Park, and it's governed by the VI Department of
18 Natural Resources, and it's been established since 2006. Going
19 down, and I hope that everybody can see it, the fishery closure
20 areas are the Marine Conservation District. I think I skipped
21 one. Sorry, guys. The marine sanctuary and wildlife reserve is
22 the Salt MSWR, and it's governed by the DPNR, and it's been in
23 effect since 1995.

24
25 Fishery closure areas and the marine conservation districts, we
26 have the Mutton Snapper, and it's being governed by NOAA, the CFMC,
27 and the VI DPR, since 1993, and the Lang Bank is the same, NOAA,
28 the CFMC, and the VI Department of Natural Resources, and the same
29 year, and so they have seasonal closures and no take.

30
31 The areas of particular concern are the Frederiksted Waterfront
32 APC, and the good thing about -- I am reading it, and I am trying
33 to go as fast as possible, but, in the next slide, we're going to
34 see like more in an illustration form. The Southshore Industrial
35 Area, the St. Croix Coral Reef System, the Salt River Bay APC,
36 Christiansted Waterfront, the Southgate Pond/Chenay Bay, the Great
37 Pond, and the East End APC.

38
39 I love this slide, because you can see exactly where those areas
40 are, and we see, in the purple outline, the particular concerns,
41 and we can see where the territorial MPAs are and the APCs are,
42 and the solid purple are the territorial MPAs, and then the brown
43 shading represent the hardbottom substrate.

44
45 The next slide is the St. Croix East End Marine Park. Seagrass
46 patrol, participants explore vital nursery habitats and learn
47 about the invertebrates that inhabit the seagrass meadows. The
48 coral nursery, through partnership with The Nature Conservancy,

1 the Cramer's Park Coral Nursery was established in 2019.

2
3 The coral nursery tour allows the public to learn about coral reef
4 restoration efforts and a first-hand look at the organisms that
5 call nearby patch reef and seagrass beds home.

6
7 Shoreline walks, explore the function of the watershed and how
8 coral reef seagrass meadows and mangrove forests work together to
9 protect the coastlines.

10
11 The visitor center, the center includes interactive displays for
12 teaching guests about the vital marine and terrestrial habitats
13 within the park and history of the natural resources within the
14 USVI. What I love about this is it's like having a visitor center
15 that allows the tourists and locals to learn more about the areas
16 and why it's important to be protected.

17
18 In the next slide, we see all the outreach in the St. Croix EEMP,
19 and we see the new signage on March 2021, and it's in bold language,
20 in English and Spanish, and the rules are specific to the location
21 of the signs, and then there are three informational products of
22 brochures, maps, businesses operating in the park, beachgoers, and
23 offenders.

24
25 I have the link to this video about the citizen science and the
26 very educational purpose, and so I don't know if you guys want me
27 to leave it there for a little while, but it's open to the public.
28 Then we have the Great Pond fact sheet.

29
30 Research in the St. Croix EEMP, NOAA and the NCCOS do fish
31 acoustic, telemetry, south shore. UVI does Acropora monitoring.
32 Woods Hole, the cleaner fish stations influence on microbiomes,
33 and the UVI SEAS Islands Alliance students in the summer of 2021,
34 assessment of Cramer's Park nursery outplants. If I sound a little
35 -- English is not my first language, and it's Spanish, but I am
36 trying my best.

37
38 Thank you for this opportunity to be here, even though it's
39 virtually, and thank you for allowing me to be a liaison for the
40 island of St. Croix, and I will do my utmost to do my job, and I
41 will go to the first slide, and this is my information, and my
42 email, and my number, if any of you want to contact me, and there
43 is my information. Thank you so much.

44
45 **ALIDA ORTIZ:** Thank you so much, Mavel.

46
47 **MARCOS HANKE:** Thank you for everybody that is online for your
48 cooperation, and we're going to conclude with the presentation of

1 Alida and address the next presentation, which will be the spiny
2 lobster presentation.

3
4 **ALIDA ORTIZ:** This is our report from the Outreach and Education
5 Advisory Panel, and, as you see, our last meeting was quite complex
6 and productive, and so I hope that we have given you the idea of
7 where we are going. Thank you so much, and happy new year.

8
9 **MARCOS HANKE:** Thank you very much. Like always, Alida, I am sorry
10 for the short time and the being rushed on this, but we're going
11 to jump to the next presentation, which is spiny lobster.

12 13 **OPTIONS FOR SPINY LOBSTER ACCOUNTABILITY MEASURES**

14
15 **SARAH STEPHENSON:** This presentation will give a brief overview of
16 some options that the council could consider for modifying the
17 timing of the accountability measure for spiny lobster in federal
18 waters off of Puerto Rico.

19
20 The MSA requires that accountability measures, or AMs, be
21 established for all federally-managed stocks. AMs are management
22 controls used to prevent annual catch limits, or ACLs, from being
23 exceeded and to correct, or mitigate, overages of the ACL if they
24 occur. Both ACLs and AMs for council-managed stocks were set under
25 the 2010 and 2011 ACL amendments, which were effective in 2012.

26
27 Those amendments separated the AM action in two parts, the first
28 describing the AM trigger, or what years of landings would be used
29 in the ACL monitoring process, and then describing the AM
30 application, which includes the timing of when the closure would
31 occur.

32
33 In 2021, NOAA Fisheries implemented an accountability measure for
34 spiny lobster in federal waters around Puerto Rico based on average
35 landings during the 2017 through 2019 fishing years, which were
36 the most recent and complete years of landings available.

37
38 The spiny lobster fishing season in federal waters was closed for
39 forty days, from August 22 through September 30. Given the history
40 of spiny lobster landings in Puerto Rico, represented by the blue
41 vertical bars in this graph, and the ACL approved under the spiny
42 lobster framework amendment to the island-based FMPs, it is likely
43 that spiny lobster catch in Puerto Rico could exceed the ACL in
44 place in future years. The landings shown are the adjusted
45 landings estimated by DNER using the coast-specific expansion
46 factors.

47
48 The horizontal lines on the graph represent the different ACLs for

1 spiny lobster in Puerto Rico. The lower dashed line is the ACL
2 that was set under the 2011 ACL amendment to the Spiny Lobster FMP
3 that has been in effect since 2012. The topmost dashed line is
4 the ACL that was set under the Puerto Rico FMP, which is in the
5 process of being implemented in the regulations, and the middle
6 solid horizontal line is the ACL that was set under the spiny
7 lobster amendment to the Puerto Rico FMP, which is likely to be
8 implemented shortly after the island-based FMPs.

9
10 The spiny lobster amendment would compare a three-year average of
11 landings to the ACL, but, if the annual landings frequently occur
12 at levels above the ACL, then the AM would be triggered. Maria
13 just told me that the lines didn't show, and so I will tell you
14 what those levels are, and I'm sorry about that. The ACL that was
15 set in the 2011 amendment was 327,920 pounds, and the ACL that was
16 set under the Puerto Rico FMP was the highest, and it was 527,232
17 pounds, and so it's above all of the blue bars in this graph, and
18 then the ACL that was set under the spiny lobster amendment is
19 369,313 pounds, and so it's above the ACL that was set in the
20 original 2011 amendment, but below the FMP ACL, and so, just in
21 light of where those landings fall relative to those reference
22 lines, the council may want to reconsider the timing of when the
23 AMs should be applied for Puerto Rico.

24
25 Specific for spiny lobster, the AM application was set under the
26 2011 ACL amendment. If an AM was triggered, the length of the
27 fishing season would be reduced by the amount needed to prevent
28 such an overage from occurring again, and the closure period would
29 extend from December 31 backwards into the fishing year of the
30 closure year for the number of days necessary to constrain harvest
31 to the ACL.

32
33 Fishers in the USVI and Puerto Rico stated that implementing AM-
34 based closures at the end of the fishing year resulted in negative
35 socioeconomic impacts, and so the timing of AMs was modified in
36 the 2016 timing of AMs amendment, which was effective in 2017.
37 Under that amendment, if an AM was triggered, the closure would be
38 implemented from September 30 of the closure year backward, towards
39 the beginning of the fishing year, towards January, for the number
40 of days necessary to achieve the reduction in landings required to
41 ensure that landings do not exceed the ACL.

42
43 If the length of the required fishing season reduction exceeded
44 the period of January 1 through September 30, any additional
45 fishing season reduction required would be applied from October 1
46 forward, toward the end of the fishing year, toward December 31.
47 At that time, the date of September 30 was identified, in general,
48 as the end of a slow fishing season, which also purposely avoided

1 the December holiday season.

2
3 September was also identified by fishers from the four different
4 coasts of Puerto Rico as a period of rough weather, and that was
5 in the amendment, in case you would like to read it, and I can
6 send you that, if you would like.

7
8 This timing of accountability measures, the September 30, will be
9 continued under all three island-based FMPs and the spiny lobster
10 framework amendment, once that's effective.

11
12 Any AM closure applied is only applicable in federal waters, which,
13 for Puerto Rico, is nine to 200 nautical miles from shore. During
14 an AM closure, state waters remain open to spiny lobster harvest.
15 Discussion at the August 2021 council meeting brought up concerns
16 from fishermen surrounding the timing of the closure and
17 compatibility in state waters.

18
19 Specifically, some concerns were that, if Puerto Rico DNER were to
20 adopt a compatible closure for spiny lobster in state waters, then
21 that closure would overlap with the closure for queen conch in
22 state waters, which is from August 1 to October 31 each year.
23 Following discussion, the council requested that staff examine
24 alternative times when AMs could be applied for spiny lobster under
25 the Puerto Rico FMP.

26
27 Here is a quick look at the average landings by month for spiny
28 lobster in Puerto Rico, before we look at the timing options. The
29 bars represent the average adjusted commercial landings for spiny
30 lobster for each month, using landings from the years 2012 through
31 2019. Again, the landings shown are the adjusted landings using
32 the coast-specific factors.

33
34 A couple of things to point out. The months with the highest
35 landings of spiny lobster are August, September, and October, and
36 this is likely because queen conch is closed in Puerto Rico, in
37 state waters, from August 1 to October 31, and so divers that were
38 targeting queen conch switched to spiny lobster. There is a second
39 period of high landings that occurs January through March, and
40 then, finally, the lowest landings of spiny lobster generally occur
41 in November and December.

42
43 The no action would continue the current AM application, and any
44 AM triggered would be applied from September 30 backward, and, if
45 the length of the required fishing season reduction exceeds the
46 period of January 1 through September 30, any additional reduction
47 would be applied from October 1 forward, towards December.

1 Three additional options for the timing of the spiny lobster AM
2 for Puerto Rico were developed. Each option will be discussed in
3 more detail on the following slides. Under Option 1, any AM
4 triggered would be applied from December 31 backwards into the
5 year. Under Option 2, any AM triggered would be applied from July
6 31 backward into the year, and, if more time is required, from
7 August 1 forward. Under Option 3, any AM triggered would be
8 applied from January 1 forward into the year.

9
10 Option 1 would use the same application of AMs as that original
11 2011 ACL Amendment when AMs were established, and any required
12 closure would be at the end of the year. Since landings of spiny
13 lobster are generally lowest in December and November, as we saw
14 in that previous chart, any required AM closure under this option
15 may be longer than a closure under the status quo, which is
16 September 30 backwards.

17
18 That is because of how the closure lengths are estimated. NMFS
19 uses the average monthly fishing rates during the trigger period,
20 which, in most instances, is that three years of landings, most
21 recent period of landings, to determine how many days would be
22 needed to prevent a similar overage from occurring in the current
23 fishing year.

24
25 This means that months with higher landings, such as August through
26 October, would have a shorter closure period than months with lower
27 landings, such as November and December, and so the required
28 closure, based on those landings at the end of the year, December
29 and November, may be longer than a closure that is based on
30 landings that occur in September or August.

31
32 This option would give fishers the greatest amount of time to react
33 to or prepare for an AM-based closure, since the Federal Register
34 closure notice would likely publish at the beginning of the year,
35 but the closure would be at the end of the year, and so they would
36 have more time to kind of prepare.

37
38 A closure under this option could overlap with the queen conch
39 closure in state waters, that August through October, if the
40 required AM closure period runs from December backwards into
41 October.

42
43 Option 2 would be similar to the current AM, but the closure period
44 would just shift earlier in the year, during the summer months.
45 Under this option, an AM would be triggered, and the closure would
46 be implemented, from July 31 of the closure year backwards towards
47 January for the number of days necessary to achieve the reduction
48 in landings.

1
2 If the length of the required fishing season reduction exceeds the
3 period of January through July 31, any additional fishing season
4 reduction would be applied from August 1 forward towards December.
5 Landings in April through July are generally lower than landings
6 in August through October, but higher than landings in December
7 and November, and so the required closure period under this option
8 may be longer than the closure under the current AM approach, but
9 shorter than the closure under Option 1.

10
11 This option would give fishers less time to react to or prepare
12 for an AM-based closure than the current approach, as the FR notice
13 would likely publish at the beginning of the year, and the required
14 closure period would likely start sooner than a closure under the
15 current approach, and so, this year, I mentioned that it started
16 on August 22. Under this option, it would potentially start
17 sometime in July, and so earlier in the year, giving less time to
18 prepare.

19
20 An AM-based closure for spiny lobster under this option would not
21 overlap with the August through October queen conch closure unless
22 the January 1 through July 31 period was not long enough to ensure
23 that landings, again, do not exceed that ACL in place.

24
25 Option 3, the last option, would change the closure period to the
26 beginning of the year. If an AM is triggered, the closure would
27 be implemented from January 1 of the closure year forward into the
28 year for the number of days necessary to achieve the reduction in
29 landings that is required, and landings in January through March
30 are generally lower than landings in August through October, but
31 higher than landings in the summer or landings at the end of the
32 year, and so the required closure period under this option may be
33 longer than the closure under the current approach, but shorter
34 than a closure under Options 1 or 2.

35
36 However, this option would likely require that the notice in
37 announcing the AM closure period be published in the previous
38 calendar year, which could be problematic if final landings are
39 not available at that time, and it would also give fishermen the
40 least amount of time to react, assuming that that FR notice
41 publishing the closure period occurred in November or December,
42 and then the closure started on January 1.

43
44 This option would not be likely to coincide with the August through
45 October queen conch closure in state waters, but, if the required
46 closure period extended into March, then that could overlap with
47 other period of high demand, such as holy week.

1 At the August council, the SERO Regional Administrator noted that,
2 given the history of spiny lobster landings in Puerto Rico, the
3 ACLs approved under the spiny lobster framework amendment, which
4 are listed below for Puerto Rico, and the lack of compatible ACLs
5 or closures in state waters, there is a high likelihood that catch
6 will exceed the spiny lobster ACL in future years.

7
8 As such, the council may want to consider other management options,
9 such as a fixed seasonal closure, to ensure, to the best of our
10 ability, that ACLs are not exceeded on a regular basis.

11
12 Here is a graphic representation of closed seasons for spiny
13 lobster across the Caribbean region, from north to south, and these
14 are reported in the citation listed below the figure from a 2021
15 publication by Atherley et al. that looked at the size of sexual
16 maturity and seasonal reproductive activity of the Caribbean spiny
17 lobster.

18
19 For most territories within the Caribbean Sea, egg-bearing females
20 have been observed in all months of the year, but with the greatest
21 frequency in the months of February to August, and you can see
22 that the majority of these countries have fixed closures for spiny
23 lobster that occur during the summer months, with twelve of the
24 thirteen countries closed during the months of May and June, which
25 overlaps with that peak spawning period. A major benefit of a
26 fixed season is that fisherman would know when the closure occurs
27 and could plan around it.

28
29 However, when you look at where spiny lobster are landed from
30 Puerto Rico, the majority occur in state waters, from zero to nine
31 nautical miles from shore, and the table breaks down the amount of
32 landings reported from state waters, which is the second column,
33 from federal waters, the third column, and then from an unknown
34 area for each year for the years 2012 through 2019.

35
36 The cells highlighted in blue represent years in which the portion
37 of landings reported from state waters were greater than the ACL
38 that was in place for spiny lobster for Puerto Rico, which, at
39 that time, was 327,920 pounds.

40
41 Note that the fishing area is not always reported, but the amount
42 of landings from that unknown area has generally gotten smaller
43 over the years, likely from improvements in data collection and
44 reporting. The blue, highlighted landings are also greater than
45 the ACL for spiny lobster that will be in place once the spiny
46 lobster amendment is effective.

47
48 If landings continue at those highlighted levels, future AMs for

1 spiny lobster would likely be triggered, and a closure would be
2 applied. Having a fixed season for spiny lobster that only applies
3 in federal waters might not prevent future overages of the ACL or
4 from AMs being triggered and applied. If the Puerto Rico DNER
5 adopted the same fixed closure, or adopted compatible regulations
6 for ACLs or accountability measures, then future AM-based closures
7 may be reduced or may not be triggered.

8
9 For the next steps, the council can discuss whether they would
10 like to develop these options into an amendment to the Puerto Rico
11 FMP or continue with the current timing of AMs for spiny lobster
12 specified in the Puerto Rico FMP and retained in the spiny lobster
13 framework amendment, which is from September 30 backwards, and
14 then, again, if more time is needed, from October 1 towards the
15 end of the year.

16
17 If you would like to develop this into an amendment, are there any
18 other times of the year that you would like staff to consider as
19 an option, other than the three times that were outlined in this
20 presentation? Additionally, would you want to include an action
21 that considers the fixed seasonal closure in federal waters?

22
23 Following discussions that the DAPs have been having with their
24 respective state agencies, the council could request that the DNER
25 consider adopting compatible regulations for ACLs or AMs for spiny
26 lobster in Puerto Rico state waters, and, additionally, during any
27 future any AM-based closures, NOAA Fisheries could request that
28 the state agencies adopt a compatible AM-based closure in their
29 state waters to provide enhanced protection for the stock or the
30 stock complex, and, with that, I will open it up for questions and
31 council discussion. Thank you.

32
33 **MIGUEL ROLON:** Marcos, if I may, the first thing that Sarah has on
34 the screen is what is the reaction of Puerto Rico at this time in
35 the lobster fishery, in the regulations in place?

36
37 **DAMARIS DELGADO:** I recommend to leave the state regulations as
38 they are as now.

39
40 **MIGUEL ROLON:** Which regulations, the EEZ or the ones that you
41 have in Puerto Rico

42
43 **DAMARIS DELGADO:** The ones in the state waters.

44
45 **MIGUEL ROLON:** So the question what will be the next step then?
46 If Puerto Rico doesn't move -- The question really is, is there
47 any need for the council to take any action at this time?

1 **MARCOS HANKE:** I can help with that a little bit, and I had a
2 feedback from Nelson. Nelson, go ahead.

3
4 **NELSON CRESPO:** Thank you, Mr. Chair. In my opinion, for the
5 moment, just leave it as-is. For me, it's the best way. However,
6 it's good to bring that discussion to the DAP panel, to see their
7 feedback.

8
9 **TONY BLANCHARD:** I agree with Nelson. If it ain't broke, don't
10 try to fix it.

11
12 **MARCOS HANKE:** Before Vanessa, Jocelyn.

13
14 **JOCELYN D'AMBROSIO:** Thank you. I was just going to say, to the
15 point about the compatible regulations, I think Sarah's point here,
16 and NMFS's point here, is just, if the council wanted to send a
17 letter to Puerto Rico to request that they take particular action,
18 and, obviously, the council has jurisdiction over the federal
19 waters, and so we can't change anything in state waters, but it
20 would just be writing a letter requesting the territory to take,
21 or the commonwealth, rather, to take particular action based on
22 whatever record we had for that request, the need for it for
23 supporting the stock here.

24
25 It's not that we would be doing anything to change Puerto Rico
26 regulations, but it would just be whether we want to pursue writing
27 a letter to request particular action from Puerto Rico. Thank
28 you.

29
30 **MARCOS HANKE:** Thank you. Damaris, do you want to reply?

31
32 **DAMARIS DELGADO:** I just wanted to clarify that, in order to get
33 that compatibility that we have been talking about for the last
34 council meetings, I do recommend that federal waters apply our
35 regulations apply our state water regulations, for compatibility
36 purposes.

37
38 **MARCOS HANKE:** Thank you. Vanessa.

39
40 **VANESSA RAMIREZ:** Thank you, Mr. Chair. I would suggest that we
41 stay as we are. We need to check that data, as we have been
42 looking around since 2018, and we have better data, and I know
43 that because of the licenses that were stuck in the department
44 that are now mailing to the fishermen, and we have a lot of new
45 fishermen, and so these numbers are going to be up and up, and so
46 we need to verify that data for the next year and then make any
47 suggestions. Thanks.

1 **MARCOS HANKE:** Thank you, Vanessa. Jack.

2
3 **JACK MCGOVERN:** This might be something that the Puerto Rico DAP
4 wanted to talk about, and I just wanted it to be something that
5 could be on their agenda to talk about at their next meeting.

6
7 **MARCOS HANKE:** If I understand correctly, your recommendation maybe
8 is to hold this presentation and present it to the DAP and come
9 back to the council?

10
11 **JACK MCGOVERN:** It sounds like that's the direction we're going
12 here. I don't think we want to drop it completely, and it might
13 be something that the Puerto Rico DAP can examine further.

14
15 **MIGUEL ROLON:** With all the things that we have on the plate for
16 2022, and with Puerto Rico's statement that they won't move an
17 inch for this, and we don't have a real reason to present to the
18 local government, because the fishery is not in jeopardy, we can
19 leave it at this, and you considered the issue, and you had the
20 presentation, and the ACL is always there, and so, if we go over
21 the ACL, the EEZ will be closed, and the people who are going to
22 suffer are the fishermen who fish for the spiny lobster, and they
23 will have something to say.

24
25 For the next steps, rather than taking any action, I agree with
26 Jack, and maybe, in 2022, we will have a DAP meeting in Puerto
27 Rico, with the group, and we can present this and present this
28 particular presentation, and then, in due time, at the next meeting
29 in the spring or the summer, Nelson can give a presentation on the
30 comments that the DAP Puerto Rico may have, and, that way, you can
31 dispose of this part of the agenda at this time.

32
33 **MARCOS HANKE:** Okay. For the sake of time, Kevin.

34
35 **KEVIN MCCARTHY:** Somewhat related, this all happened before we had
36 a Caribbean Branch, and on our radar is to do an update assessment
37 for spiny lobster next year, and has the council officially asked
38 for that, because it's outside of the SEDAR process, and that would
39 be a request of the Science Center, as I understand the process,
40 and so has that happened?

41
42 If so, it's just because of the shift in who is responsible, and
43 I would have missed it, but I just wanted to make sure -- I mean,
44 it seems timely, right, given this conversation and given where
45 the ACLs are going to be over time, and those could change with a
46 new assessment, and we don't know which way they might change, but
47 they could change, and they may stay the same, but they are likely
48 to change somewhat, and so has that request been made, and I think

1 it makes sense to do so.

2
3 **MARCOS HANKE:** It makes total sense. Miguel.

4
5 **MIGUEL ROLON:** It isn't scheduled for SEDAR, but, now that you
6 mention it, if you have time, please do your best to get that
7 information, and so you need anything, like a letter from the
8 Chair?

9
10 **KEVIN MCCARTHY:** We need some sort of memo to Clay, and it would
11 ask for an update assessment, and an update assessment is outside
12 of SEDAR, and so we would do that internally. We would get data
13 from other people, but we would do that internally at the Science
14 Center and not a part of the whole SEDAR thing, but, in 2024, yes,
15 it is a full-on SEDAR update, but I think it's important that
16 another one, given this topic, be included officially in the 2022
17 schedule. We will be finishing up SEDAR 80, but we will have the
18 capacity to do that update assessment during the calendar year
19 2022.

20
21 **MIGUEL ROLON:** In that case, Mr. Chairman, the Chair will write a
22 letter to Clay Porch requesting that assessment, and Graciela will
23 prepare the talking points for Marcos. Thank you a lot, and we
24 can move to the next.

25
26 **MARCOS HANKE:** It's already clear our path, and we're going to do
27 this letter, and we're going to -- Before or after, depending on
28 the guidance and the timing by the staff, we're going to take this
29 information to the DAPs, and we will move from there. Thank you
30 to all. The next presentation is me.

31
32 **MIGUEL ROLON:** For those of you who don't know the next presenter,
33 I have been trying to promote the use of squid in Puerto Rico since
34 the 1970s, and, the first time it occurred, Marcos was interested,
35 and he has experience, and he contacted people throughout the
36 Caribbean, and I believe that you are going to see today a success
37 story.

38
39 The idea is to present to the fishers of Puerto Rico and the U.S.
40 Virgin Islands alternatives to the fishing that they do now, and
41 the fishermen are not convinced by Miguel telling them that this
42 is good, but they are convinced by watching other fishermen
43 adopting this gear that is capable of catching deepwater squid,
44 and so I asked Marcos to help us with a presentation.

45
46 This is something that already Marcos put on the webpage that we
47 have and the social media, through Christina Olan, and so what we
48 will hear today is a presentation on the deepwater squid

1 opportunity for fishers in the Caribbean. Marcos, you only have
2 fifteen minutes, according to yourself.

4 **DEEPWATER SQUID FISHING**

6 **MARCOS HANKE:** I am going to show how quick I can be now. The
7 deepwater squid opportunity, for me, it's a personal opportunity
8 to -- I am sorry for the use of the word two times, but to show
9 what the fishermen can do to create sustainable efforts and new
10 opportunities for the fishing industry that are totally new or
11 complement part of our other fishing efforts, like swordfish
12 fishing and deepwater fishing, and this presentation was -- The
13 outreach efforts for this information was supported by the council,
14 CFMC, and by Sea Grant, and a special thanks to Christina Olan, to
15 Jeanette Ramos, to Miguel Rolon, to Alida, and especially Collin
16 Butler from the St. Thomas DAP, Danny Suarez, a swordfish
17 fisherman, and others that supported this effort.

19 This is the one-pager that is posted on our social media, which is
20 pretty much a little synthesis, or a little roadmap, of how to go
21 fishing for deepwater squid around Puerto Rico and the USVI, and,
22 as a result of that, it's the following.

24 It's important to recognize that, because it's a totally new
25 approach to the fishery, we have new things in there, right, and
26 we have crazy, weird hooks, which is the squid hooks, which is
27 like a parachute, and we have like the jig that is on the side
28 that's made with aluminum and filled with pieces of weight and
29 cement, and it's all homemade. Pretty much most of the jigs that
30 we used on this project were manufactured locally.

32 The terminal depth means the depth where the jigs, or the lure,
33 are going to be on the water column, and the bottom depth is the
34 depth where you are fishing, and let's say you can be in 3,000
35 feet, and the jigs can be in 1,500 feet.

37 This initiative started in 2017, and I had the opportunity to talk
38 about this fishery with some fishermen in Miami, and we started to
39 explore the opportunity with an approach for commercial and
40 recreational fishers, and this approach was based on the
41 conversation with Mitch Lay in Miami, and then we used the
42 publications and the videos produced by FAO and by JICA, which is
43 the Japan International Corporation Agency, to guide us on the
44 first steps of this project of how to fish for deepwater squid.
45 My kids call them the sea monsters.

47 This effort was mostly for commercial fishermen, the effort from
48 FAO and from JICA, and it was an effort designed for an artisanal

1 fishery, smaller-scale fishermen.

2
3 Except in Puerto Rico and the USVI, many islands in the Caribbean
4 are already fishing, because of this project, artisanally for
5 deepwater squids. The Dominican Republic, Antigua, Grenada and
6 some others are some examples. Most important, guidance was
7 provided by Mitch Lay and Antigua fishermen and Michiro Ishida,
8 via telephone, and there were hour-to-hour phone calls addressing
9 how to manufacture and how to identify the fishing areas and
10 details that on the videos are not there.

11
12 This photo, just to put it into context, is a photo taken by Danny
13 Suarez, and he's a swordfish expert in Puerto Rico, because those
14 squid were already caught in Puerto Rico by accident, right,
15 incidentally, fishing for swordfish.

16
17 Incidental catch, and some targeted landings, were sold in Puerto
18 Rico, prior to this effort and to this presentation, for \$8.00 to
19 \$12.00 a pound, similar to conch and octopus prices on the market.
20 Nowadays, and this is brand new, the USVI introductory price per
21 pound is \$16.00 a pound that those organisms are being sold, after
22 they are cleaned, and this exploratory fishing opportunity
23 includes the recreational and commercial sector as well, and I
24 want to highlight that, because the effort that I did at first,
25 and I am going to present to you some numbers that I tried to put
26 in a very small fraction of the data that we have, the really new
27 part is the recreational approach to this fishery.

28
29 Part of this initiative is to develop local expertise and rigging
30 adaptations, such as finding the best rigging, fishing areas,
31 manufacturers of local terminal tackle, testing different reels,
32 create added value to existing fisheries, like for swordfish
33 fishermen and deepwater fishermen, and adapting to recreational
34 angler applications.

35
36 Deepwater squid is a natural alternative and a substitute to
37 culinary applications made with conch and octopus, and it's
38 extremely versatile, in terms of the culinary approach of this
39 resource, and it's amazing what you can do with those squids,
40 because of the shape, the quickness, the form, and the quality of
41 the meat.

42
43 Now, the characteristics of this species and the fishing methods,
44 just to give a little context to this, and, based on the reported
45 biology papers that I read, it showed some resilient
46 characteristics, and I present these as resilient characteristics
47 because there is not a lot of information, especially for our
48 areas, and it's just some biological parameters and things that

1 can suggest to us that they are a good species to explore for our
2 area.

3
4 They grow very fast, and they live for approximately one year, or
5 maybe just a little more, but pretty much one year, and they can
6 get to thirty pounds. There is a wide distribution in the
7 Caribbean and Atlantic area basins, north and south of us, and,
8 basically, they are everywhere related to deep waters and to the
9 thermocline dynamic with the plankton migration, and pretty much
10 the point of reference is the thermocline.

11
12 They are potentially resilient to climate change, and I want to
13 highlight this, and I just put one aspect of the climate changes,
14 which is the surface global warming of the waters, and those
15 species have -- In their reproduction cycle, they have a dynamic,
16 and everything is spread around, and it's not something that, if
17 you impact here, you impact the population as a whole, because
18 they are widely distributed, and, from my reading, and this is my
19 expertise developed up to now, they don't aggregate with chum and
20 things like other species, and it's pretty much a species designed
21 for recreational and artisanal approach, where you can get a few
22 of them and have high value on the fishery.

23
24 They have low fishing pressure throughout the range, and they are
25 mostly fished artisanally, and there is two squids that are part
26 of the fishery, and I think this is very important, because it's
27 not a single-species approach recommendation, and I am talking
28 about the species composition that you can extract from the ocean,
29 doing the method that I am going to recommend to you, which would
30 divide the pressure to two populations, two different groups of
31 organisms.

32
33 It can reduce, or redirect, shallow-water effort, especially on
34 conch and octopus, as an option. If we have a closed season for
35 octopus, and let's say there is a lack of production or a supply
36 of conch or whatever, and easily this product can substitute for
37 both, in terms of preparation and culinary application. It has a
38 minimum bycatch, and it's a very clean fishery, and it's easily
39 combined with pelagic fishing methods, like swordfish fishing and
40 deepwater fishing, and, basically, the only thing that changes is
41 the terminal tackle. Everything else is exactly the same, in terms
42 of the gear used, and they both require the electronics and
43 everything.

44
45 It's a great substitute to add value to engage local fishermen to
46 a pelagic resource, and it's basically moving them out of the
47 platform, that has a lot of pressure, and the opportunity includes
48 the Caribbean pelagic multispecies approach, and, again, when you

1 go to the deep water, and you are ready with some rigs extra on
2 your boat, you are pretty much fishing for deepwater squid, and
3 you can be fishing for swordfish and mahi and so on and have that
4 combo of species opportunity, and, by having that mentality and
5 the expertise, you can have the incentive to move out of the
6 platform, because it is not like I am going to fish for one, and,
7 if I don't do good, I don't feed my family, right, and, in this
8 case, you have to take like a multispecies approach possibility.

10 The shallow insular platform is not the only alternative that we
11 have, and we have been turning our backs, as fishermen in the
12 Caribbean, to the resources that we have in open water, and
13 everybody else around us is using them except us.

15 Fishing in very deep waters, gears don't interact with the bottom,
16 and it does not add significant pressure to the benthic habitats,
17 because it's in the water column. Management considerations, just
18 a few, to put it in perspective, it's a very similar gear
19 description to the gears used by deepwater fishermen and swordfish
20 fishermen, and the main change is the terminal tackle, and I
21 already explained that.

23 The typical fishing area, there is a little freedom on those
24 numbers, but I had to put some numbers there for people to
25 visualize what we are talking about, and they are mostly caught in
26 1,200 to 3,000-plus feet, all the way to 4,000 feet we have been
27 fishing for them, and the squid jigs between 1,000 to 1,500 is the
28 standard on our effort to produce deepwater squids of both species.
29 This picture was provided by Collin Butler from the DAP St.
30 Thomas/St. John.

32 Here, you have a diagram made by Cynthia from Sea Grant, and I
33 invite you to see it on our social media, and there is all the
34 measurements and the details of how to make the terminal tackle.
35 On the top, we have two of the important jigs for squid, and one
36 was made with a plastic bottle of Perrier full of lead and cement,
37 with the hooks costing \$75.00 on the internet, and the cost of the
38 lure is \$2.00. The other one is carved with the same hooks, and
39 it's about the same cost, and the size is between ten to twelve
40 inches long.

42 On the side, also, and we have a reel on the top, which is a top-
43 notch reel, and it's the LP reels that are good for swordfish and
44 deepwater species, and you have the recreational general deepwater
45 electronic reel for deepwater species, and I will not read all the
46 gear, because we've already read it in there, and there is some
47 details about them, the lights, the elastic cord and so on, and I
48 put more details in there, because this can be another reference

1 to the fishermen.

2
3 When we spoke about the culinary market versatility, you have, in
4 St. Thomas, two days ago, a restaurant, and this is an effort of
5 Collin Butler, who has been amazing to help me out and to move
6 this along with a commercial fishing approach, and this is squid
7 on the grill, and on the top is fried squid, and the tentacles,
8 and it's the same thing they do with the octopus, and we have, on
9 the side, the way to clean, a little bit of the details.

10
11 Remember that one of the highlights of this product is that, if
12 you freeze them, you get a higher quality, because it breaks down
13 the meat and it makes it more tender and better quality, which
14 means that, in terms of how you market and where you take it and
15 how you deal with the meat, the fishermen have way more control to
16 maximize their income, and it's not a product that needs to be
17 sold fresh, and you have a salad there, and, also, you have a dish
18 favored by my kids, which is, instead of pasta with veggies, stir
19 fry, you have very fine-cut squid pieces, twenty seconds on the
20 fire, and you're good to go.

21
22 Here, you have the history of my effort, my limited effort, and I
23 wish I could go more, but I think this is enough to give you an
24 idea on a recreational approach.

25
26 First, I started with the wrong things, and it was the wrong hooks,
27 and it was not exactly the best depth on setting the lures and on
28 the terminal tackle bottom, and I just got pieces of a tentacle.
29 Once I adjusted that, on the next trips, every single trip, I
30 caught a squid, with a single line, and be mindful that my effort
31 was a recreational effort with a single line.

32
33 There is other things that we're going to explore later that are
34 going to maximize those numbers, and, basically, the standard for
35 us now is large squid hooks of two-inch diameter, setting on a
36 depth between 2,500 and 3,500 range and deeper. The terminal
37 tackle, I would say that 1,500, which is where the thermocline
38 pretty much are.

39
40 The game-changer was the participation of the DAP members that
41 requested more information after the CFMC social media post, and
42 this post was the new fishing opportunity for deepwater squids,
43 and Captain Collin Butler showed very quickly his knowledge and
44 his expertise on pelagic species, generating great information and
45 fishing results in catching deepwater squids.

46
47 He has the proper gear, and he has the mentality to fish for
48 deepwater squids commercially. Please listen to this, and this is

1 a great example of how, across the U.S. Caribbean jurisdiction,
2 fishers for all sectors, all sectors and areas, can help each other
3 to create better and more resilient fishing opportunities in a
4 responsible way. I added that, and, Captain Collin Butler, I don't
5 know if he's connected, and I didn't see him before. Otherwise,
6 I pretty much can follow-up.

7
8 For the sake of time, I am going to keep going, and he made two
9 trips. The first trip had no hook-up, and the second trip had
10 hook-up, but it didn't land. On the third trip, after we fine-
11 tuned, over many conversations on the phone, he caught eight squid,
12 six neon and two diamondback, for a total of ninety-two pounds,
13 and each diamondback squid weighed twenty-four pounds, and those
14 animals can get close to fifty or sixty pounds, and all those eight
15 were caught on the same trip.

16
17 The verbal update that I will add here is that he is already --
18 The mega yachts are approaching him, and very quick the stories
19 are running in St. Thomas, and people are getting interest on it.
20 One restaurant is requesting to include it on the menu, and they
21 sold out once they introduced it on the menu as a test. People
22 bought it, and it was \$16.00 a pound, and the buyer is willing to
23 buy more.

24
25 The tuna trips, he spent about a hundred gallons of gas. Squid
26 fishing he spends just twenty gallons of gas, and the first
27 processed squid batch was \$16.00, and I covered that. The biggest
28 squid represent about \$300.00 on his effort.

29
30 For now, we're going to have two slides, one for recreational and
31 one for commercial, and the size of the instructions and the
32 guidance on the first post that we did on the web, there is some
33 extra information that we want to share. If you combine two rods,
34 one for squid fishing from the boat, no buoys, one squid and one
35 swordfish, or one swordfish rigged, at different depths, you can
36 maximize your effort.

37
38 Using weighted jigs from six to ten pounds, to compensate for
39 drift, and this is for a recreational application, and they are
40 fishing from the boat, and to prevent a big ball on the line, and
41 the lights must be positioned fifteen to eighteen to twenty feet
42 apart from the lures, and they don't like the light to be too close
43 from the jig, and that distance is key when you are approaching
44 this fishery.

45
46 Use a long-tip flex rod, and, basically, you are looking for a
47 shock-absorbent method with a flexible Momoi or a rubber that you
48 introduce on the rig to create some give when the squid makes the

1 short run. Use a big dipnet to keep it in the water or use a four-
2 inch-long gaff, and be mindful that we didn't explore yet the use
3 and collection for sale that is a very high value product, also.

4
5 Next, for the commercial fishing recommendation, fish three to
6 five buoys, and that is the FAO and Captain Butler recommendation.
7 Combine squid with swordfish, and make sure that you are fully
8 ready for the other species. Use weighted jigs, from four to ten
9 pounds, and the light position the same, and this is all the same
10 as the rec recommendations, and use light drag when you are
11 pulling, instead of doing it by hand, and try combining the
12 swordfish rigs, instead of putting just a weight, just adding the
13 weight, as a weighted squid jig to produce a fish and a squid at
14 once. The depth where he is recommending to explore is between
15 1,900 to 3,500-plus.

16
17 The challenge to the future, and this is a request to the agencies,
18 for the people that can support this effort, recommend formal
19 exploratory data collection to establish seasonality, biological
20 data, abundance for both common species, market potential, price
21 range, gear description, and other important information, because
22 we have a unique opportunity on a developing fishery to have that
23 baseline data and to do this at once, the best way, and the best
24 informed way, possible.

25
26 It's important that this effort was a voluntary, private, self-
27 financed effort by myself and my family, and they were not with
28 me, but it's part of this, and this was to support all sectors of
29 the fishermen in the U.S. Caribbean. Let's promote a new
30 opportunity in a sustainable and collaborative way. Thank you.

31
32 **MIGUEL ROLON:** Any questions for the Chair?

33
34 **MARCOS HANKE:** Let me put on my other hat now. Any questions? We
35 have Nelson and Julian.

36
37 **NELSON CRESPO:** Thank you, Mr. Chair. Thank you, Marcos, for your
38 initiative in developing this alternative fishery. You and me
39 have been talking about this fishery, and definitely we are going
40 to try this at the beginning of next year, and we know the presence
41 of giant squid on the west coast of Puerto Rico, because we know
42 swordfish fishermen that are catching it, and I think I sent you
43 some pictures of this, and I know some fishermen that, when they
44 are going for the deepwater snapper, the tentacles are tangled in
45 their hooks, and I think it's a good alternative to reduce the
46 pressure in other fisheries, like the deepwater snapper and the
47 conch fishery and other types of fisheries in the future. We are
48 very interested, and we are going to keep talking about this.

1 Thank you, Marcos.

2
3 **JULIAN MAGRAS:** Thank you, Mr. Chair. I am excited. When I saw
4 the pictures, when Collin first posted them on social media, I was
5 like I couldn't believe it, and I know it's been talked about, and
6 I've heard you talking about it for a long time, and one of the
7 good things about this fishery is nothing goes to waste, and I
8 wanted to get that out there, because I spoke with you earlier
9 yesterday, and I told Collin that I want all the waste. I bait my
10 traps with the waste, to catch the fish, and so he had forty pounds
11 of waste, and he had ninety-two pounds of sellable squid, and so
12 which is great, and so it's a place for me to get the waste, and
13 so I am very excited.

14
15 Then another post that I saw, and I heard you talk about it, and
16 another post that I saw was someone told him that, to stop the
17 squid from inking, if you have a big enough live well, as you catch
18 them, and you can have that live well filled with fresh water,
19 and, as you throw it in, the squid will not ink. That was
20 interesting, to see how much people got onto social media and have
21 been following this.

22
23 I also heard, in my fishing community, other fishers now who are
24 interested in going and doing this, and so I just want to applaud
25 you for doing this and continue the great efforts, and I am looking
26 forward to hearing a lot more about this fishery. Thank you.

27
28 **MARCOS HANKE:** Thank you, Julian, and I just want to follow-up
29 that between the neon and diamondback are different, because they
30 are different species, and they are built a little different, but
31 one twenty-nine-pound diamondback results in twenty-three pounds
32 of meat. There is more byproduct on the cleaning and trimming on
33 the neon, but the important part here is that the U.S. Caribbean,
34 in developing the two species, it will use the resource to the
35 maximum, and the international effort was to use neon to supply
36 the international market exportation, and this approach aims to
37 feed the local Caribbean market. Vanessa.

38
39 **VANESSA RAMIREZ:** Thank you, Mr. Chair. Marcos, I have to
40 congratulate you, and I have been looking at this project since
41 practically the first week that you started with it, and it's been
42 a pleasure to see this presentation, and, as I wrote in the chat,
43 I have some of the commercial fishermen for deep snappers that
44 want to participate, and we are able to make training in here,
45 when you are available, in the west. Thanks.

46
47 **MARCOS HANKE:** We are in this plan, and thank you very much, and
48 I think we have another presentation, and thank you for your

1 patience of hearing this project, and let's keep working, and we're
2 going to find a way to create videos, maybe, and training, and how
3 to manufacture, and basically transform this into a package of
4 execution in a responsible way, coordinated with the Science
5 Center, maybe, to collect some data, and let's see which way we
6 can do this. Next presentation is Puerto Rico enforcement.

7
8 **ENFORCEMENT ISSUES**
9 **PUERTO RICO DNER**

10
11 (The presentation was in Spanish and was not transcribed.)
12

13 **MARCOS HANKE:** USVI.
14

15 **USVI-DPNR**
16

17 **HOWARD FORBES:** The Department of Planning and Natural Resources,
18 Division of Environmental Enforcement federal fisheries summary
19 for the third quarter is as follows. We are pleased to announce
20 that we have hired three additional officers within the last six
21 months and are in the process of recruiting an additional five to
22 augment the existing force. Presently, we have a total of eight
23 officers throughout the territory, which is four in each district.
24 It is important for us to continue to recruit and hire, to maintain
25 a functioning division.
26

27 Highlights of the enforcement cases include confiscation of
28 undersized spiny lobsters that were attempted to be sold at the La
29 Reine Fish Market, for which was confiscated, and a citation was
30 issued.
31

32 Other cases were related to the illegal harvesting of conch during
33 the closed season, two individual observed diving conch on the
34 south side of St. Croix. Seventy-three pieces of conch meat was
35 confiscated, and citations were issued.
36

37 Earlier last month, an officer on routine patrol on the north side
38 of St. Croix conducted a fisheries inspection and observed that an
39 individual was a licensed commercial helper who was harvesting
40 conch, but without a commercial license holder on the vessel. The
41 catch of thirty pounds of shell conch meat was confiscated, with
42 a citation issued to that individual.
43

44 With the opening of the La Reine Fish Market in March of 2021, it
45 has provided a centralized location for the local commercial
46 fishers to have a sanitary and state-of-the-art facility to conduct
47 sales and transition to the consumers. Officers conducted spot-
48 checks at the first, but are now assigned to the facility on

1 weekends. The height of the activity is on Saturday, at which
2 time it's necessary to have enforcement present, to maintain it's
3 secure and safe to consumers.

4
5 On a final and good note, the division has been awarded a \$1.5
6 million grant from the American Rescue Plan Act for the acquisition
7 of four new patrol vessels, two per district, which are slated to
8 be commissioned and in service in the late fall of 2022.

9
10 Dockside boarding hours was 567 hours, and sea patrol hours were
11 268, and market inspection hours were 162. The St. Thomas fishers
12 registered for the year of 2021 through 2022 cycle, and, on St.
13 Thomas, it's 119 fishers registered. On St. Croix, registry for
14 the 2021 to 2022 is 141. The helpers that St. Thomas registered
15 with the department, for St. Thomas, it's forty-four. On St.
16 Croix, we have eighty-five helpers, and this concludes the USVI
17 report.

18
19 **MARCOS HANKE:** Thank you. NOAA.

20
21 **NMFS/NOAA**

22
23 **MANNY ANTONARAS:** Good afternoon, everyone. My name is Manny
24 Antonaras with NOAA's Office of Law Enforcement. I apologize for
25 not being able to join in-person, and I'm hopeful that I may be
26 able to travel to the Caribbean for the next meeting. We did
27 prepare a couple of slides, and I'm not sure if we are able to see
28 those, but, due to time, I can run through just some notes that I
29 have for each of those slides.

30
31 Beginning here on Slide 2, our office initiated an investigation
32 involving spiny lobster that was imported into Puerto Rico from
33 the Dominican Republic. Our folks seized approximately 3,000
34 pounds of spiny lobster for various violations, spiny lobster
35 regulations, and this included some undersized lobster, some egg-
36 bearing lobster, and also lobster that was clipped. This case is
37 currently being prepared for submission to our Office of General
38 Counsel.

39
40 We had another case this quarter, a couple of cases, involving HMS
41 species, and one of those was for selling yellowfin tuna without
42 the required HMS permit, and a summary settlement was issued in
43 that case in the amount of \$3,000.

44
45 Another HMS case involving yellowfin tuna, and this was for
46 purchase of tuna from a non-permitted fisherman, and that case
47 resulted in issuance of a \$750 summary settlement. We also had an
48 incident involving catching of one tuna, yellowfin tuna, and a

1 written warning was issued for that particular case.

2
3 Our agent in Puerto Rico also followed up on a complaint involving
4 a dolphin feeding video that was posted on social media, and this
5 was -- This posting was part of an advertisement for short-term
6 rental property, and, as part of that advertisement, they had what
7 appeared to be dolphin feeding activity.

8
9 On further investigation, it was determined that this particular
10 video was actually photoshopped and that the feeding never took
11 place in Puerto Rico. Subjects were informed of the prohibition
12 under the MMPA and agreed to post "Do Not Feed Dolphin" placards
13 on their property, and my understanding is they have since
14 requested more of those signs for some education.

15
16 Puerto Rico, we also had a joint patrol, and it was an air patrol
17 with DNER aboard DNER's aircraft, and that particular patrol
18 focused on the Bajo de Sico closed area off of the western side of
19 Puerto Rico. I also know that Special Agent Miguel Borges has met
20 with the acting commissioner of DNER and is involved in some
21 ongoing discussions with regard to the JEA and how those particular
22 hours are being worked with Puerto Rico.

23
24 In the USVI, we have an enforcement officer that is now assigned
25 to the USVI, and he is stationed in St. Thomas. During this past
26 quarter, he conducted twenty-four separate patrols across St.
27 Thomas, including areas of Hull Bay, Magens Bay, Frenchtown,
28 Charlotte Amalie, and Red Hook, and, as part of those patrols, he
29 took the opportunity to conduct outreach and education with
30 commercial, recreational, and charter fishermen.

31
32 Also, in the USVI, we did have a case involving catching -- It was
33 also an HMS case involving the harvesting of tuna without the HMS
34 permit, and also landing that not in whole condition. That case
35 resulted in a written warning.

36
37 We had another case involving, again, HMS species, and this one
38 was an individual that was actually targeting HMS species, but did
39 not have any fish onboard, and that case just resulted in
40 compliance assistance, and I just wanted to note that, the very
41 next day, the fisher applied for and obtained the required permits,
42 and so compliance was obtained just that very next day.

43
44 We did have an incident involving lobster poaching, and that case
45 is still ongoing, and I can't provide any more details at this
46 time, and so investigation continues. We also followed-up on a
47 report of illegal anchoring, with potential seagrass damage. On
48 initial investigation, it was determined that the incident took

1 place in territorial waters, and that information was passed to
2 DPNR for action.

3
4 Just to summarize, some of these incidents and cases under
5 discussion are just some of the activities, and it, of course,
6 doesn't cover all of the enforcement efforts throughout this
7 quarter. As I mentioned, we have several other ongoing
8 investigations pertaining to different sorts of things, like
9 illegal sales, conch poaching, and sea turtle poaching, just to
10 name a few.

11
12 This concludes the OLE brief, but I wanted to, once you again,
13 leave you our twenty-four-seven enforcement hotline contact
14 numbers and, just so that you are aware, complaints can be made
15 anonymously, and callers can also leave their contact info, if
16 they wish to have either a special agent or an officer return their
17 call, or they could simply contact the hotline and leave their
18 information and provide anything they would like to share directly
19 with one of our officers or agents.

20
21 I also have here, including on this final slide, the contact
22 information for Miguel Borges, the OLE Special Agent out of San
23 Juan, Puerto Rico, and Alex Torrero is the enforcement officer
24 assigned to St. Thomas, and so their email addresses are included
25 on this slide, and I have introduced Matt Walia, who is our
26 office's Compliance and Council Liaison, and Matt's information is
27 not on this slide, but, as soon as I am complete, I will add Matt's
28 contact and email address in the chat, and Matt is available for
29 any questions on regulations, current or emerging enforcement
30 concerns that may come up, if there is any question or
31 clarification needed on regulatory requirements, and he's also a
32 very good point of contact from our office. That concludes the
33 OLE brief. Thank you.

34
35 **MARCOS HANKE:** Thank you very much. Is there anybody from the
36 Coast Guard connected virtually? I didn't see any. Seeing none,
37 we will go to the next item. Miguel.

38 39 **CFMC ADVISORY BODIES MEMBERSHIP**

40
41 **MIGUEL ROLON:** Thank you, Mr. Chairman. The next item is the CFMC
42 Advisory Bodies Membership. Yesterday, we had a closed session to
43 discuss the possible candidates, and I will go one-by-one. In the
44 case of the SSC and the Ecosystem-Based Management TAP, the
45 Technical Advisory Panel, they're okay, and the membership is
46 complete, and we didn't need to address any vacancies at this time.

47
48 In the case of the Outreach and Education Panel, there is a

1 recommendation to Adyan Rios to the Outreach and Education Advisory
2 Panel. Since this meeting is a hybrid, she can participate
3 virtually, and she's a member, as you know, of the Southeast
4 Fisheries Science Center, the Caribbean Branch, and so, at this
5 time, we need to have a motion to approve.

6
7 **TONY BLANCHARD:** So moved.

8
9 **CARLOS FARCHETTE:** Second.

10
11 **MARCOS HANKE:** All in favor say aye. The motion carries.

12
13 **MIGUEL ROLON:** In the case of the DAP, St. Croix is okay. The
14 membership is complete, and we can review that in the summer, when
15 some of the members' terms expire in 2022. In Puerto Rico, there
16 are four vacancies, and Nelson is going to submit to us some
17 recommendations between here and the next council meeting.

18
19 In the case of the U.S. Virgin Islands, St. Thomas/St. John,
20 yesterday, we considered three people, and I would like to ask the
21 Chair of the DAP St. Thomas/St. John to speak about these
22 recommendations. We have Charity Ledee, Jessica Peterson, and
23 Christy Berry, and so, please, Julian, can you talk about these
24 people and why they are recommended and who are they?

25
26 **JULIAN MAGRAS:** I submitted three names for recommendation, and I
27 will start off with Charity Ledee, and she is a registered
28 commercial fisher, and she's a female, of course, and her husband
29 is also a commercial fisher, and she's been following the industry
30 for a very, very long time, and she's been participating for over
31 fifteen years, being active and attending both -- Listening-in
32 these meetings and listening to the FAC meetings, and she has a
33 young son that's also sixteen years old, and so he's too young to
34 have a license, and she actually goes out on the boat with him,
35 and she's the captain, and she goes out with her husband, and so
36 I think, with her wealth of knowledge that she has in the fishery,
37 I think it's time that we start to include females into
38 participating on these committees, especially on the district
39 advisory panels, and it's good to have their input, because they
40 are following, and they're our side-piece, and I think it would be
41 a great opportunity for her to be on the committee.

42
43 Then I have Jessica Peterson also, who is a commercial fisher, and
44 she also fishes with her son, who here very soon will hopefully be
45 one of our young fishermen, and she also has been in the process,
46 following this process with us, from the very beginning, back in
47 2004.

1 I reached out to her, also, and asked if she would be interested,
2 since it's very difficult to get some of the other guys to
3 participate, and I said, well, I am going to reach out to people
4 who want to actually be involved, and she is a great candidate, a
5 wealth of knowledge of all that's been going on, both local and
6 federal.

7
8 She's a lobster fisher, and I think she will bring great help to
9 us in her areas, and then the last person that I have is Christy
10 Berry, and her dad used to be one of the biggest fishermen, back
11 in the day, David Berry, and her stepmom also used to be a council
12 member, Monica Lester, and so she's a diver.

13
14 She and her husband own a diving company on St. Thomas, and she
15 has a lot of interest in what has been going on, and she's also a
16 member of the Fishery Advisory Committee St. Thomas/St. John, and
17 she said that she would like to give it a try and see if her input
18 can supply information for the diving industry, which we do have
19 a lot for the committee, and so I think it's a great opportunity
20 to have these three females, and I hope they can be considered to
21 fill the vacancies that I have on my committee.

22
23 The members that I don't have on the committee no more, they have
24 moved on. One of them moved to Hawaii, and two of them have moved
25 to the states, and so, while they were there, they were a great
26 help to us, and now I think, with their vacancies, and with all of
27 what's going on, I think it's time for us to get people who are
28 willing and want to be involved in this process to join the
29 committee. Thank you.

30
31 **TONY BLANCHARD:** I would like to add to that. I agree with Mr.
32 Magras on these three great candidates, and I know all three of
33 them. We talk about having fisherwomen involved, and this is a
34 perfect time, and so, like I said, I think it's three great
35 candidates, and so I don't see any reason why they shouldn't be
36 added to the DAP, and they show interest.

37
38 I mean, at this point in time, there is very little interest shown
39 to get on these committees and to stay on these committees, and so
40 I think we should encourage people that are willing to take that
41 step forward, by putting them in and giving them a shot. **So moved.**

42
43 **MARCOS HANKE:** Any second?

44
45 **DAMARIS DELGADO:** Second.

46
47 **MARCOS HANKE:** Damaris seconds. All in favor say aye.

1 **JEAN-PIERRE ORIOL:** (The first part of the comment is not audible
2 on the recording.)
3

4 My question is level of effort to recruit outside of the commercial
5 fishing sector, number one, and what has that experience been like,
6 or is there any effort, or has there mostly been -- Then, second,
7 because this is a St. Thomas/St. John committee, and, again, just
8 for my edification, level of effort to have a St. John
9 representative, because we do not have that at this time.

10
11 **JULIAN MAGRAS:** Thank you, Commissioner, for that question, and
12 that's a very important question. We have had members from the
13 St. John fishers on the committee before, and both recreational
14 and commercial. The last one that just came off was Joshua Bourg
15 as the representative, and he was from St. John, and I have been
16 trying very, very hard to get the guys from St. John to be involved,
17 and they are telling me that they don't have time.

18
19 They say, if we have a charter, we cannot be involved, and we don't
20 want to leave a seat that is vacant, that somebody can fill to be
21 on the committee, and so it's been a great challenge, and I've
22 tried, from the time I've been the chair of this committee, to
23 continue getting someone from St. John, and it hasn't worked.

24
25 The same issue in St. Thomas, but some of the guys that you see
26 that are commercial on the St. Thomas side actually are
27 representatives also for the sportfishing group, and like Collin
28 Butler, and he is one of them, and so having a guy like that is
29 great. Having Elizabeth Kadison from the University of the Virgin
30 Islands, and we had a representative from the Department of
31 Agriculture, and he left, and that was Elton George. We also had
32 Lance, who left us, and he was also from the recreational sector.

33
34 We have reached out to several, several individuals and asked them
35 to be part of the committee, and we have been turned down, due to
36 the fact that, one, they are scared to speak, and, two, they say
37 they don't have the time, because the times when the meetings are
38 taking place, and so, with all that's been going on out there,
39 they are members of the association, and they get involved, and
40 they ask questions, but they just don't want to be at the table
41 sitting down for an eight-hour meeting, or a four-hour meeting,
42 and that's been the problem.

43
44 By giving these ladies an opportunity, I think it's a great
45 opportunity, and, in the future, when we revisit our membership in
46 April of 2024, if we do find someone to fill one of those positions
47 from St. John, or somebody else that shows interest, we can bring
48 them on, and there's people always saying that they want to leave,

1 and we just was able to get Joshua Quetel, one of our youngest
2 fishermen, involved, and I see here, within the next couple of
3 years, as a couple of these younger fishermen come up, it will be
4 a great opportunity for them to get involved, so that some of us
5 who have been there for so long can train them, and we can actually
6 get a break. Thank you.

7
8 **MARCOS HANKE:** We need to vote. We have to finish the vote. **All**
9 **in favor say. Yes, just to make clear the record.** The next item
10 on the agenda is -- Miguel.

11
12 **MIGUEL ROLON:** For the record, there was a recommendation to allow
13 the Chair to appoint these members that Nelson is -- So we can
14 have them for the DAP meeting.

15
16 **MARCOS HANKE:** Yes. Once Nelson submits the names, you guys
17 authorized me to send the letter to appoint those people, and do
18 I need a motion on that part?

19
20 **CARLOS FARCHETTE:** You need a motion for what?

21
22 **MARCOS HANKE:** To appoint the people that Nelson is going to --

23
24 **CARLOS FARCHETTE:** (Mr. Farchette's comment is not audible on the
25 recording.)

26
27 **DAMARIS DELGADO:** Second.

28
29 **MARCOS HANKE:** **All in favor say aye. The motion --** The next item
30 on the agenda is Other Business, and we don't have anything, and
31 we're just going to jump to Public Comment. Is there anybody from
32 the public who would like five minutes to speak?

33
34 **GRACIELA GARCIA-MOLINER:** I do have a message from Bill Arnold.
35 He's in Hawaii vacationing, but he wants to wish you all happy
36 holidays.

37
38 **MARCOS HANKE:** Next meetings, Miguel.

39
40 **NEXT CFMC MEETINGS IN 2022**

41
42 **MIGUEL ROLON:** We are going to have a workshop on February 9. By
43 the way, Liajay is our new -- You have seen her around, but we
44 want to have a round of applause for this lady. She is a bright
45 cookie, and she competed with a lot of people to get her position,
46 and she beat them all, and so we are really lucky to have her.

47
48 We are going to have a workshop, a special workshop, on February

1 9, and so mark your calendars, and, for this special workshop, we
2 would like to have everybody -- The chairs of the advisory bodies
3 and the council members are going to be invited to participate,
4 and this meeting will address MPAs, and we will have the three
5 liaison officers talking about the MPAs, and they are going to
6 focus on that.

7
8 We will have a person from the Western Pacific talking about the
9 oceanic MPAs, marine protected areas. As you know, the Executive
10 Order of President Biden called for having a Thirty-by-Thirty area
11 protected, and you have heard all of that already, and so this
12 special workshop will have science and governance and the industry,
13 and we probably -- I asked Julian and Nelson and Eddie to be ready
14 to give us the perspective of the fishers in terms of the MPAs and
15 what they have -- You have the local governance talking about the
16 governance, and so we hope that that will be a good meeting, and
17 it will probably be two days, the 9th and 10th, and it all depends,
18 and it will be a hybrid meeting. All the meetings of the council
19 from now on will be hybrid, by the way.

20
21 The three meetings that have been scheduled, or proposed to be
22 scheduled, are April 19 and 20, August 11 and 12, and December 6
23 and 7, and, in between, if we need to, let's say because the of
24 the strategic plan recommendations and everything, if we need
25 meetings in between, we will advertise and have a doodle poll that
26 we will have the consensus of the council members as to which are
27 the best days to have those meetings. That's what we have, Mr.
28 Chairman.

29
30 **MARCOS HANKE:** Before we end, thank you very much for the patience,
31 and I am sorry for the inconvenience with the technology, and this
32 is something that the council staff have already plans to adjust
33 and to improve, and we're going to work with the timing of the
34 agenda and not to be so rushed next time, and I received many,
35 many communications requesting all the tools possible for this not
36 to be so rushed and more time between presentations, or maybe more
37 days, and the staff and I and you guys are going to evaluate that,
38 and Miguel is going to help me on that part, and I want to wish,
39 to everybody, Merry Christmas and Happy New Year. Miguel.

40
41 **MIGUEL ROLON:** We say that, by the way, every time that we meet,
42 and I want to say goodbye to a special person, Dr. Michelle Duval,
43 and she is sitting at the end, and she was trying to escape the
44 cold weather, and she never knew that we would have cold weather
45 just for her in that corner, and she is freezing there.

46
47 Dr. Duval worked very hard to get this strategic plan going, and
48 she's a member of the Mid-Atlantic Fishery Management Council, and

1 so she has been a member of other council before, and we hope to
2 see you sometime, and maybe, if you have your own boat, come here
3 and start working with us, and I would like to give a round of
4 applause to this lady.

5
6 I want to also say this, that we are closing a year after a very
7 hard year, 2020, and 2021 we thought we were all going to be happy
8 and without facemasks, and look at that, and we still have the
9 masks and keeping a distance from each other and all that, and so
10 we hope that 2022 will be better, but I want to thank my staff.

11
12 If you look around, women are taking over, and look at that corner
13 over there, and so, guys, we have to do something, but I am the
14 last of the Mohicans in my office, and all the rest are women, and
15 we have two contractors, and they are women, and they do an
16 excellent job, and so kudos to Christina Olan, and she is our
17 contractor, and Natalia Perdomo, and she is going to have a baby
18 in March, and she is the one who takes care of the webpages, and
19 the rest of the staff here, and there are not many, and so I am
20 going to mention them. There is Ruth Gonzalez, Iris Oliveras,
21 Diana Martino, Maria de los A. Irizarry, Vivian Ruiz, and you know
22 Vivian, because she is the one who sends the checks, and she is
23 the one that receives the receipts, and so you all know her.

24
25 Then Graciela runs around, and she is now teaching Liajay to run
26 around, but I am really grateful to have these people working with
27 us, and I hope that I will keep them for some time before I die or
28 retire, because, without these people, nothing moves.

29
30 Then the Southeast Fisheries Science Center and the Regional
31 Office, and, actually, we have another two women there, Sarah and
32 Maria Lopez, and, in the Science Center, we have Adyan Rios and
33 Shannon and other people, and so watch out, but we are really
34 grateful that we have the support of the Regional Office and the
35 Southeast Fisheries Science Center and other people around here,
36 and especially the fishers, because, without the fishers, we don't
37 go anywhere, and they have the interest, and they have the guts.

38
39 I remember when Julian and I used to talk, and he was the only one
40 talking to that side, and he would say to me, Miguel, I am going
41 to say this, and I would say, yes, say that to the council, for
42 the fishers, and it's the only way, and that has been about twenty
43 years like that, and so sometimes we don't see eye-to-eye, but we
44 respect each other, and I believe that we can work that way for
45 the future.

46
47 The Commissioner of the Virgin Islands, we thank you for coming
48 here, and I know you are a very, very busy person, and I am really

1 grateful that you came and had the time to meet with us, and so,
2 to all of you, thank you for very much for helping the staff and
3 working together, and I wish you the best in 2022. Happy
4 Christmas, Feliz Navidad, and thank you very much.

5
6 **VANESSA RAMIREZ:** Thanks, everyone, and Happy New Year.

7
8 **MARCOS HANKE:** Motion to adjourn. Goodbye, all.

9
10 (Whereupon, the meeting adjourned on December 8, 2021.)
11
12

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