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TABLE OF MOTIONS

PAGE 137: Motion to include the U.S. Coast Guard as ex-officio member to the three DAPs. The motion carried on page 138.

PAGE 163: Motion that the council directs staff to revise the preliminary Puerto Rico Snapper Unit 2 Commercial Permits Scoping Document as requested and then to conduct scoping hearings at appropriate sites in Puerto Rico during Fall of 2016 and to present outcomes at the December 2016 council meeting. The motion carried on page 163.

PAGE 177: Motion to approve the Timing of Accountability Measures Amendment with the selected preferred alternatives and submit the amendment to the Secretary of Commerce for approval. The motion carried on page 185.

PAGE 185: Motion to give staff the authority to make any changes to the Timing of Accountability Measures Amendment in response to decisions made by the council at this meeting and give staff the editorial license to make editorial changes. Any changes will be reviewed and approved by the Council Chair. The motion carried on page 185.

PAGE 185: Motion to give the Council Chair the authority to deem as necessary and appropriate the codified text and any modifications made to the proposed rule. The motion carried on page 186.

PAGE 195: Motion that the council directs staff to develop optional approaches to applying accountability measures in Puerto Rico based on total ACL rather than sector-specific ACLs and to present those draft options to the council at the spring 2017 meeting. The motion carried on page 196.

- - -

1 **CARIBBEAN FISHERY MANAGEMENT COUNCIL**
2 **157TH REGULAR COUNCIL MEETING**
3 **Vanderbilt Hotel**
4 **San Juan, Puerto Rico**

5
6 June 28, 2016
7

8 The Caribbean Fishery Management Council convened at the
9 Vanderbilt Hotel, San Juan, Puerto Rico, Tuesday morning, August
10 23, 2016, and was called to order at 9:00 o'clock a.m. by
11 Chairman Carlos Farchette.

12
13 **CALL TO ORDER**
14

15 **CARLOS FARCHETTE:** I want to welcome everyone to the 157th
16 Regular Council Meeting held at the Vanderbilt Hotel in San
17 Juan, Puerto Rico, on August 23, 2016. Before I start the roll
18 call, I want to welcome Sam Rauch, Deputy Assistant
19 Administrator for Regulatory Programs at National Marine
20 Fisheries Service. Thank you for attending, Sam.

21
22 **SAM RAUCH:** It's my pleasure to be here.
23

24 **CARLOS FARCHETTE:** Okay. We will do the roll call, and I will
25 start on my left with Vivian.
26

27 **VIVIAN RUIZ:** Vivian Ruiz, council staff.
28

29 **GRACIELA GARCIA-MOLINER:** Graciela Garcia-Moliner, council
30 staff.
31

32 **BILL ARNOLD:** Bill Arnold, NOAA Fisheries, Southeast Regional
33 Office.
34

35 **TONY BLANCHARD:** Tony Blanchard, St. Thomas/St. John councilman.
36

37 **RUTH GOMEZ:** Ruth Gomez, DPNR, Fish and Wildlife.
38

39 **MARCOS HANKE:** Marcos Hanke, Vice Chair, charter captain.
40

41 **SAM RAUCH:** Sam Rauch, Deputy Director, National Marine
42 Fisheries Service.
43

44 **CARLOS FARCHETTE:** Carlos Farchette, Council Chair.
45

46 **MIGUEL ROLON:** Miguel Rolon, council staff.
47

48 **DIANA MARTINO:** Diana Martino, council staff.

1
2 **ROY CRABTREE:** Roy Crabtree, NOAA Fisheries.
3
4 **IRIS LOWERY:** Iris Lowery, NOAA General Counsel, Southeast
5 Section.
6
7 **BONNIE PONWITH:** Bonnie Ponwith, NOAA Fisheries, Southeast
8 Fisheries Science Center.
9
10 **CARLOS VELAZQUEZ:** Carlos Velazquez, council member, commercial
11 sector.
12
13 **EFRAIN ROSA:** Lieutenant Junior Grade Rosa, Sector San Juan,
14 Enforcement.
15
16 **LT. FAIR:** Lieutenant Fair, United States Coast Guard.
17
18 **MARIA DE LOS A. IRIZARRY:** María de los A. Irizarry, council
19 staff.
20
21 **EDWARD SCHUSTER:** Edward Schuster, DAP Chair, St. Croix.
22
23 **NELSON CRESPO:** Nelson Crespo, DAP Chair, Puerto Rico.
24
25 **JULIAN MAGRAS:** Julian Magras, DAP Chair, St. Thomas/St. John.
26
27 **ALIDA ORTIZ:** Alida Ortiz, Outreach and Education Advisory Panel
28 Chairman.
29
30 **RICHARD APPELDOORN:** Rich Appeldoorn, SSC Chair.
31
32 **MARIA LOPEZ:** Maria Lopez, Southeast Regional Office.
33
34 **KATE QUIGLEY:** Kate Quigley, council staff.
35
36 **HOWARD FORBES:** Howard Forbes, DPNR Enforcement.
37
38 **LYNN RIOS:** Lynn Rios, NOAA Enforcement.
39
40 **LOREN REMSBERG:** Loren Remsberg, NOAA Office of General Counsel.
41
42 **JACK MCGOVERN:** Jack McGovern, NOAA Fisheries.
43
44 **YASMIN VELEZ:** Yasmin Velez, Pew Charitable Trusts.
45
46 **ORIAN TZADIK:** Orian Tzadik, Pew Charitable Trusts.
47
48 **TONY IAROCCI:** Tony Iarocci, commercial fisherman.

1
2 **ALEXIS SABINE:** Alexis Sabine, DPNR, Fish and Wildlife.

3
4 **CELESTE LEROUX:** Celeste Leroux, NOAA Fisheries.

5
6 **JOCELYN D'AMBROSIO:** Jocelyn D'Ambrosio, NOAA Office of General
7 Counsel, Southeast Section.

8
9 **NORA SANTANA:** Nora Santana, visitor.

10
11 **ELECTION OF OFFICERS**

12
13 **CARLOS FARCHETTE:** Thank you. Before we begin this morning,
14 we're going to do the Election of Officers, which will be
15 chaired by the U.S. Coast Guard.

16
17 **EFRAIN ROSA:** Now we are going to do the election of officers
18 for the Chairman and Vice Chair. At this moment, does anyone
19 have any recommendations?

20
21 **TONY BLANCHARD:** I would like to recommend Carlos Farchette for
22 Chair and Marcos Hanke for Vice Chair.

23
24 **COUNCIL MEMBER:** Second.

25
26 **EFRAIN ROSA:** Are there any further recommendations at this
27 point? We will take the vote. **All in favor; any opposed. I**
28 **would like to close the vote at this point. The Chair has been**
29 **selected as Carlos Farchette and Vice Chair is Marcos Hanke.**

30
31 **SWEARING-IN OF NEW COUNCIL MEMBERS**

32
33 **CARLOS FARCHETTE:** Okay. Thank you so much, Coast Guard, and
34 thank you, Tony, for your vote of confidence. All right.
35 Moving forward, we have a swearing-in of a member, Tony.

36
37 (Whereupon, Mr. Blanchard was sworn-in.)

38
39 **CARLOS FARCHETTE:** Thank you, Roy, and welcome back, Tony. We
40 would like a couple of welcoming remarks by Sam.

41
42 **SAM RAUCH:** Thank you, Mr. Chairman. I'm Sam Rauch, and I'm the
43 Deputy Director of the National Marine Fisheries Service. I
44 often, when I come down here, I come down here to give a
45 presentation of some sort, and I didn't come down here to give a
46 presentation this time, and that made people nervous, but I have
47 no presentation, and I have nothing to announce. I am just down
48 here to visit the council.

1
2 I do like to go see the various councils at least once a year.
3 The last time I visited this council was last August, I believe,
4 when you were out on the eastern point out here. I forget what
5 the name of that place was, but there was an earthquake when we
6 were there.

7
8 The work of the Caribbean Council is very important, as are all
9 the councils nationwide. This past year, the Caribbean Council
10 hosted the 40th Anniversary of the Magnuson Act celebration and
11 did a fine job there in St. Thomas. I think that many of the
12 challenges that you face today are challenges that other
13 councils are facing in different ways, shapes, and forms, but we
14 have made great progress over those forty years, in terms of how
15 the fisheries have moved. The United States fisheries are the
16 most sustainable in the world, and it is largely because of the
17 work that you and the other councils do in meetings like this.

18
19 I know it's difficult to sit here for all these days and to do
20 all this work when you could be out on a beautiful day like
21 today fishing, before the rain hits, but it's important, and so
22 thank you.

23
24 **CARLOS FARCHETTE:** Thank you, Sam. I was a little concerned
25 when I heard that Sam was coming. You make people nervous, Sam.
26 Okay. Okay, Adoption of the Agenda.

27
28 **ADOPTION OF AGENDA**

29
30 **TONY BLANCHARD:** I would like to make a change to the agenda and
31 move the EFH Goals and Objectives Before the IBFMP, switch them
32 around. Could we move the EFH discussion before the goals and
33 objectives?

34
35 **RUTH GOMEZ:** As we were going through the goals and objectives
36 and taking a look at the ones for the U.S. Virgin Islands, there
37 is one in particular that talks about EFH.

38
39 What we wanted to do is we took a look at the agenda and
40 decided, in order to get some more clarity on what that one
41 particular goal was referring to, we wanted to have the
42 discussion before we got to goals and objectives. That way, we
43 could have a little bit more information when it came to that
44 particular goal, and the goal is Number 12, Objective Number 12.
45 That's the reason for the move.

46
47 **MIGUEL ROLON:** Ruth, you don't really have to move it, because
48 the last part is just a five-year -- I believe that what you

1 need is an explanation of the essential fish habitat when we get
2 to that point, and Graciela can address it very clearly.

3

4 **RUTH GOMEZ:** Okay.

5

6 **MIGUEL ROLON:** We won't take any vote on anything until
7 everything is clear for everybody.

8

9 **RUTH GOMEZ:** Okay, and then I have one more correction. The
10 data collection of the USVI will be given by Alexis Sabine and
11 not myself.

12

13 **CARLOS FARCHETTE:** Okay. Thank you. Under Other Business, we
14 have Michelle Scharer who will be doing a presentation tomorrow,
15 under Other Business.

16

17 **IRIS LOWERY:** I will just, during Other Business, give the
18 council a brief update on a new suit that's been received by the
19 agency on the queen conch listing.

20

21 **CARLOS FARCHETTE:** Bonnie.

22

23 **BONNIE PONWITH:** I would like to, under Other Business, just
24 give an update and a reminder on the Saltonstall-Kennedy call
25 for proposals.

26

27 **CARLOS FARCHETTE:** Thank you, Bonnie. We also have a couple of
28 changes to the agenda here. We're going to have the Scientific
29 and Statistical Committee Report by Dr. Appeldoorn, and then
30 we're going to move Acceptable Biological Catch first and then
31 Island-Based Fishery Management Plans. Then, right after, we
32 will have Bonnie do a presentation. Any more changes? Hearing
33 none, we will move to adoption of the agenda.

34

35 **MARCOS HANKE:** Motion to adopt the agenda.

36

37 **CARLOS FARCHETTE:** Do we have a second?

38

39 **TONY BLANCHARD:** Second.

40

41 **CARLOS FARCHETTE:** Motion made by Marcos Hanke and second by
42 Blanchard. All in favor, say aye; any abstentions; any nays.
43 Hearing none, the motion carries.

44

45 Consideration of the 156th Council Meeting Verbatim
46 Transcriptions, are there any comments or suggested corrections
47 for the verbatim transcripts? If not, we need a motion.

48

1 **CONSIDERATION OF 156TH COUNCIL MEETING VERBATIM TRANSCRIPTIONS**

2
3 **MARCOS HANKE:** Motion to accept the verbatim transcripts.

4
5 **CARLOS FARCHETTE:** Is there a second?

6
7 **TONY BLANCHARD:** Second.

8
9 **CARLOS FARCHETTE:** We have a motion by Marcos Hanke and a second
10 by Blanchard to accept the meeting verbatim transcripts. All
11 in favor say aye; any nays; any abstentions. Hearing none, the
12 motion carries. Now the Executive Director's Report and Miguel
13 Rolon.

14
15 **EXECUTIVE DIRECTOR'S REPORT**

16
17 **MIGUEL ROLON:** I don't have much to say, and this is a very
18 heavy agenda, and so I just want to mention that budget is okay.
19 We received only a 2.9 rather than a 10 percent increase for
20 2016, but it's enough to cover all of our expenses until
21 December 31. Later in the agenda, we are going to discuss the
22 roadmap. In there, you will see some of the meetings that will
23 be needed, if you approve that roadmap, and so we are confident
24 that in 2016 and 2017 we will be okay to have the funds
25 necessary to work on our responsibilities for 2016 and 2017.

26
27 It is expected that, at the February meeting next year of the
28 CCC, that we will receive some news regarding the other years of
29 the budget cycle. So far, we do not expect any big increases,
30 actually, on the budget, but the most important part is that we
31 are going to be able to conduct our business as usual.

32
33 This is a selfish slide. This young lady has won the first gold
34 medal. For the U.S., a gold medal is just another gold medal.
35 Phelps got five and the other guy has a lot, but this is the
36 first gold medal in the history of Puerto Rico in the Olympic
37 Games by a Puerto Rican competing for Puerto Rico, and so I just
38 wanted to say thank you to this lady today. They are going to
39 have a big thing. That was it, Mr. Chairman.

40
41 **CARLOS FARCHETTE:** That's Mónica Puig. We've got to
42 congratulate her. It was tennis. Now we've got the SSC
43 Committee Report with Dr. Appeldoorn.

44
45 **MIGUEL ROLON:** Richard, before you begin, for the council
46 members, these three presentations, or two presentations,
47 especially the one by Bonnie Ponwith, are the key to the whole
48 meeting, when we are going to be discussing the risk percentage

1 that the council should approve, and you will see a presentation
2 of a whole week of discussions by the scientists that met last
3 week.

4
5 Also, Dr. Bonnie Ponwith is going to refresh our memories about
6 some of the key terms that we have to deal with. There are some
7 legal constraints by which we have to operate, and we will also
8 address that. You shall not overfish, and, because of that
9 mandate, we have some scientific terms that will be addressed
10 today, and so it's important that you all understand that and,
11 please, especially when Dr. Richard Appeldoorn finishes, if you
12 have any questions, write them down and be sure that you have
13 your mind clear and all of your questions answered.

14
15 **SCIENTIFIC AND STATISTICAL COMMITTEE REPORT**
16 **ACCEPTABLE BIOLOGICAL CATCH CONTROL RULE**
17

18 **RICHARD APPELDOORN:** Thank you. I am going to actually split
19 the report, as I understand it, into two parts. I will give the
20 ABC Control Rule first and then we'll move on. I think Bonnie
21 is going to follow that, and then I will get back to the SEDAR
22 information. We did consider two points, for the most part, the
23 ABC Control Rule and SEDAR 46.

24
25 In thinking about the control rule, it's really important to
26 think about the alphabet soup that we have here and whose
27 responsibilities are whose. We started off with, here, an
28 overfishing limit, and this is supposed to be based on some
29 estimation of MSY, maximum sustainable yield, that comes out of
30 an assessment.

31
32 This would be the catch expected when fishing is at a level that
33 will achieve maximum sustainable yield and that fishing
34 mortality is MFMT, the maximum fishing mortality threshold.
35 That is capping where, as Miguel said, where we can fish,
36 because the legal mandate is that you are not allowed to
37 overfish.

38
39 Then there is another drop here to acceptable biological catch,
40 and this is the catch reduced from the overfishing limit to
41 account for scientific uncertainty, and these two things here
42 are the responsibility of the SSC.

43
44 From the ABC, there can be another drop, and this would be the
45 ACL, the annual catch limit, and that's the catch that invokes
46 accountability measures. Finally, which we have not done in the
47 Caribbean, there is an annual catch target, and so there's a
48 target that could be reduced below the ACL to account for

1 management uncertainty. This really needs a system where you
2 are tracking catch through the season to be able to respond to
3 that. Otherwise, you're probably just going to set that to the
4 ACL.

5
6 How does this relate to what we're talking about in the
7 population? This is our sustainable yield. As fishing effort
8 increases, or as stock biomass decreases, you have your maximum
9 sustainable yield at the peak of this parabola, and everything
10 over here is the area we do not want to fish, and so, one half,
11 your stock biomass is your MSY, and you are not allowed to
12 deplete your population any more than that, and so you have to
13 keep your fishing mortality below that. This is the threshold,
14 the MFMT. Here is our OFL and potentially and ABC, an ACL, and
15 an ACT, just as an example.

16
17 You will note that, at the top of this parabola, depending on
18 the shape, even though we're moving this way substantially, we
19 have not adjusted the catch very much from here to here. Now,
20 this is an ideal situation, and we rarely deal with the ideal
21 down here, and so we spent two days as a working group
22 developing an ABC control rule.

23
24 We then spent another full day reinventing that, because it
25 turns out that we didn't learn everything in the first two days,
26 but we came up with a four-tiered system, and I would point out
27 that we were able to do this in the time available because
28 basically we stood on the shoulders of every other council, and
29 we had, at our fingertips, what they had and what seemed to
30 work, what was the basis for it, and we were able to basically
31 pick and choose and adapt what might work best for us.

32
33 We have four tiers. The first one is a data-rich full
34 assessment, and I will explain what that is. That is something
35 that we are not capable of as of yet. Tier 2 is a data-moderate
36 full assessment. Again, we're not ready for that yet, but we
37 might get there.

38
39 Tier 3 is where we are trying to get with the work that's been
40 done through SEDAR with the data-limited model toolkit, and all
41 of those are based on assessments. Tier 4 is when we do not
42 have an assessment and we're going to have to base it on catch
43 information and whatever else we know.

44
45 The reason for having such a tiered system is, first of all,
46 multiple tiers enable us to establish catch limits across a wide
47 range of data quality situations for all the stocks. It also
48 incentivizes efforts to obtain better information, because the

1 better information we have, the more we can use better models to
2 more accurately determine where we are and more precisely, I
3 should say, because that's going to affect the ABC control
4 rules.

5
6 Because the tiers, as you go down the tiers, are dealing with
7 more uncertain situations, the ABC buffer is going to increase
8 in size, due to increasing uncertainty as we descend down the
9 tiers, and so the control rules are designed to be more
10 conservative when uncertainty is higher.

11
12 How does this work? We start off with an assessment. An
13 assessment model is going to give us a probability density
14 function, or a PDF, of distribution of overfishing limits, and
15 so it will say, for example, and this is very hypothetical, at
16 this point that 100 is where we have the peak of our
17 distribution, and that would be our best guess. We have a mean,
18 and we have a variance. This is our mean, at 100, and we have a
19 variance which controls the width of that distribution. From
20 that, we have to then make some assessments about where we're
21 going to go in terms of uncertainty and establishing the ABC.

22
23 Initially, we have our MSY point here, and so this is the 50
24 percent probability of overfishing, and our MSY is down here at
25 100. However, what we want to do is establish a buffer on that,
26 and so we say we're going to define risk of overfishing as
27 something less than 50 percent. We can come over here, and that
28 comes down to a new value, slightly lower, and that would be our
29 ABC, in a perfect world.

30
31 Now, here is the important point. I called it risk of
32 overfishing, but it's really the level of risk that the council
33 is willing to accept that overfishing will not occur, and this
34 is all set by you, and this is a really important step, because,
35 as I will show later, if you don't have this buffer, you never
36 leave this point, and it doesn't make a difference how much
37 uncertainty you have built into that normal distribution.

38
39 Where is the scientific uncertainty? That hasn't been brought
40 into play here yet, and there are two ways to do this, and I am
41 going to show that. One is using the variance. As things
42 become more uncertain, that variance increases, and so the width
43 of this thing is going to increase.

44
45 The other is to use a buffer. If the council decides not to
46 reduce or bring in this buffer, the SSC will have to make two
47 types of adjustments, one dealing with the variance of the
48 distributions and the other is bringing in a buffer to create

1 this offset, and so variance is a measure of uncertainty or, in
2 this case, standard deviation.

3
4 Just generally speaking, one standard deviation extends out to
5 here and two standard deviations extend out to there. We're
6 going to talk about these levels, and so just to give you an
7 idea of how much variability we're willing to incorporate into a
8 model or will set into a model depends on how much uncertainty
9 we have, and this will affect what that is.

10
11 Standard deviation, or variance, is a measure of uncertainty in
12 OFL, and so there are three normal distributions here, and the
13 variance of the green one is larger than the variance of the red
14 one, which is larger than the variance of the blue one. This is
15 going to affect us when we do an offset from here down to here.
16 We will either intercept this line, that line, or that line,
17 depending on how much variance or uncertainty we have in our
18 estimate of the overfishing limit.

19
20 We would, again, look at the situation. We look just first at
21 the green line, and here is our normal MSY calculation, and you
22 will see it's the same as the blue line, and I have the
23 transitions out of order here, but here is our buffer from
24 estimating the probability of how much risk we're willing to
25 accept for overfishing, and that's going to intercept, on an
26 uncertain stock, at the green line here, but a more precisely
27 estimated assessment would give us the blue line here.

28
29 That difference between here, these are the ABC estimations, and
30 they are offset by the degree of uncertainty, the width of that
31 curve. That is the standard deviation, or variance, and so we
32 want to use the width of the curve as our primary estimate of
33 uncertainty and set the ABC looking at that.

34
35 Our first one, everything flows from this one. Even though this
36 is a situation we are not likely to be in in the near future,
37 everything flows from this definition, and so this is the
38 perfect world. The condition for use for the data-rich
39 situation is we have a full stage-structured assessment, and so
40 stage-structured means it's by age or size or category,
41 somewhere we can break up the life history, and we have reliable
42 time series on catch, stage composition, and index of abundance.
43 These are available and the assessment provides estimates of the
44 minimum stock size threshold, maximum fishing mortality
45 threshold, and the probability density function of the
46 overfishing limit, and so those were the curves that I was just
47 showing.

48

1 There are three things here that we want to have. That makes it
2 data-rich. The minimum stock size threshold is to be set at 75
3 percent of the MSY or MSY proxy, and so this is below which
4 you're going to be in an overfishing situation.

5
6 Our maximum fishing mortality threshold is set by FMSY or the
7 FMSY proxy, and that is the maximum fishing mortality we can
8 have. If you go over that, you're in an overfishing situation.
9 This is going to be set as FMSY. MSY is going to be our long-
10 term yield at that fishing mortality, and the overfishing limit
11 would be normally the yield at that value, as offset by the risk
12 of overfishing that the council is willing to entertain, and so
13 it looks like this.

14
15 Our ABC is going to be some factor of the overfishing limit, as
16 reduced by scientific uncertainty and the risk of overfishing.
17 Again, what I am calling the risk of overfishing, just to keep
18 the terminology short, is determined by the council, and so what
19 X is depends on this formula, and so there is a scalar right
20 from the beginning.

21
22 If the council sets a risk of overfishing probability that's
23 less than 0.5, then that scalar is equal to one, and so we just
24 go with whatever the council decides. If the council decides
25 not to do that and keep the level at 0.5, we will have to put a
26 scalar in there, because the system works by getting off from
27 that 50 percent point.

28
29 We have two things. I am going to show a graph of this, but
30 this part here is dealing with setting a minimum value of
31 biomass that we would like to reduce fishing mortality on, as we
32 start approaching that, and so we don't want to get into a --
33 It's a buffer to try and keep us from getting into an overfished
34 situation, where we would actually have to close the fishery or
35 do something drastic, and so this is just the difference between
36 wherever we are and that critical value, and I will show a graph
37 of that. Scientific uncertainty takes into account, but is not
38 limited to, the species life history and its ecological function
39 at this stage.

40
41 This is how it would work, again. Here is our probability of
42 overfishing at MSY, but we want to have this buffer offset, and
43 whatever uncertainty we have would be driving. If we had the
44 buffer here, that drives to our ABC. If no buffer is set, then
45 the SSC will have to put in that scalar to drive the system down
46 a little bit, so we get the offset effect that we're looking
47 for.

48

1 I talked about having this what we call the B critical value,
2 and so what we would have is an OFL, and that OFL is going to
3 decline, because it's the fishing mortality at MSY times the
4 biomass, and so, as biomass declines along this curve, the OFL
5 would decline.

6
7 The ABC is a reduction from that, and so that's also going to
8 decline, but we could get down to a level of biomass where we're
9 getting really low and the ABC control rule would still allow
10 overfishing, and so what we were suggesting is that there's a
11 buffer put into here such that there is a value chosen, and that
12 value is where we're going to start reducing fishing mortality
13 down to, so that we get to zero at this point, so we don't get
14 our biomass below some really critical value. That's why that's
15 in there.

16
17 The actual value of this has obviously not been determined yet,
18 and it would be -- This is something that, as you go in this
19 direction, if we get into an overfished situation, is going to
20 be part of the rebuilding plan, but we felt that we should have
21 a cap on that.

22
23 Simply, the data-moderate situation, Tier 2, the condition for
24 use for that is the data-moderate approaches, where there are
25 two of the three time series of data that we were looking for,
26 and so this was catch, stage composition, and index of
27 abundance. If we just have two of those, and they are deemed to
28 be informative, we can still do an assessment, but we're not
29 going to have the level of certainty that we would have in a
30 Tier 1 situation.

31
32 In this case, the Tier 1 approach is used in exactly the same
33 way for Tier 2, but we're going to adjust the variation in the
34 probability function of OFL, or that standard deviation. What
35 we would do is we would take the output from the assessment,
36 which gives us a mean and a standard deviation. If that
37 standard deviation is not bigger than 1.5 of some minimum value,
38 we will set the standard deviation at that value or larger,
39 because we want to make sure that the uncertainty is increasing.
40 Therefore, the width of the normal distribution is increasing to
41 do our offset on.

42
43 In principle, there should be more uncertainty with data-
44 moderate approaches than data-rich approaches, and that makes
45 sense. Now, this value here, we have not set yet, but there are
46 empirical studies. The Pacific Council did a really nice
47 analysis of a fairly large number of what we would consider Tier
48 1 analyses and came up with an empirical value for that, which

1 was 0.36.

2
3 That may be a value that we choose, or we may choose something
4 slightly different from that, but the idea is to make sure that
5 we don't artificially get ourselves into a situation where we're
6 thinking there is less uncertainty than there really is. You
7 will see, as we go to the next system, that this value is going
8 to increase again.

9
10 Here is Tier 3, and this is the data-limited quantitative
11 assessments. The conditions for use is that we have relatively
12 data-limited or out-of-date assessments. We still are able to
13 get some of the parameters that we need. Most likely we will be
14 using proxies, such that might come from spawning potential
15 ratio or a yield per recruit analysis, and ABC is determined
16 from OFL, again reducing because of scientific uncertainty and
17 risk of overfishing, the same things that we had before, but we
18 have two situations.

19
20 Again, where the reduction factor is applied to the probability
21 density function of OFL, and this is the risk of overfishing,
22 then the probability density function is going to be used to
23 determine where the ABC is, where this variance now has to be
24 greater than or equal to two times that minimum value. That
25 will depend on what comes out of the assessments that are done
26 with the data-poor methods, and, when I talk about SEDAR, I will
27 show you an example of what that might look like, but we are
28 going to constrain the variance around that to be larger than
29 the variance from our more rich assessments, because it's to
30 reflect the level of uncertainty that we have.

31
32 This is where things come in. If there isn't the information --
33 If we do the assessment, but the PDF isn't really good enough or
34 we don't have the buffer set by the council, then there is a
35 reduction factor that we're going to use in addition, and that
36 reduction factor must be greater than or equal to 0.9. Then we
37 might be able to flip up to that, and so which one we use
38 depends on what comes out of this assessment.

39
40 Finally, there is Tier 4, and this is sort of where we are now,
41 although we've modified it to an a and b situation. What we
42 have is landings information and maybe ancillary information,
43 perhaps a productivity-susceptibility analysis or just
44 information on life history and expert opinion.

45
46 4a, the condition for use is there is no acceptable assessment,
47 but the stock is unlikely to be subject to overfishing and not
48 likely to be overfished. If we don't have a consensus on that

1 statement when we're looking at a stock, we automatically go to
2 Tier b, but let's look at Tier a first.

3
4 We don't know any of the parameter values that we would like to
5 have, and that's these, and so we're just going to say that our
6 OFL is going to be a scalar times the 75th percentile of the
7 reference period of landings. Since we are not in an overfished
8 situation, that scalar can be equal or less than two, and I will
9 show a graph of this, the 75th percentile of our reference
10 period, and then we will multiply that by two to set our OFL.
11 This value will depend on, again, what we think about how much
12 is it likely to be --

13
14 **ROY CRABTREE:** Richard, since you don't have an MFMT, and you
15 don't have any fishing mortality estimates, and you don't have
16 an MSST and you don't have biomass estimates, how do you come to
17 a determination as to whether it's likely to be subject to
18 overfishing or not likely to be subject to overfishing?

19
20 **RICHARD APPELDOORN:** That's a good question, and I could just
21 punt and say expert opinion, but we do have trends that are
22 available in catch records, and we do have length information.
23 That may not be good enough for an assessment, but if we're
24 getting large lobsters and there hasn't been a problem with the
25 fishery over time, as an example, we could say, okay, we don't
26 think it's overfished, but how much then comes into how much we
27 will adjust things. Remember that we have to have consensus on
28 this point. If there's no consensus on this point, we
29 automatically go to Tier b.

30
31 **ROY CRABTREE:** Consensus means everyone is in agreement or
32 exactly what does that mean on the SSC?

33
34 **RICHARD APPELDOORN:** It means everyone is in agreement to the
35 point that they're not going to raise a formal objection. In
36 other words, we work by consensus, and so it's rarely by any
37 kind of vote, but we have had situations where people say I'm
38 not so sure, but I will go along, but, yes, this is an important
39 point, and we particularly put this in here to make sure that
40 we're not just saying, okay, it's three to two and let's go
41 ahead. Three to two is not consensus. We have to have a strong
42 feeling that this is not going to be a problem, but we don't
43 want to penalize a fishery or a fishery that is just starting
44 up, for example, that we wouldn't expect to be in an overfishing
45 situation. That might be a good example as well.

46
47 Tier b is where either we don't know, it's unclear, or it is
48 likely to be overfished or undergoing overfishing. Again, these

1 values are undefined. OFL, again, is on a scalar, but now it's
2 going to be the mean of the recent landings, and the reason it's
3 recent landings here, as opposed to a reference period here, is
4 because, if we believe it's overfished, then that means the
5 recent landings must be too high already, and so we were
6 recommending the three most recent years of landings, and our
7 scalar now is going to be less than one, because we want to
8 reduce the fishing pressure in a situation we think that is
9 already likely to be occurring.

10
11 The ABC, again, is going to be relative to the buffer, where the
12 buffer needs to be, less than 0.9, and so there's a further
13 reduction on that. We're setting the OFL from the landings, and
14 then there's a further reduction from that to account for
15 uncertainty.

16
17 Let's go back to Tier 1, just to see how that works. This is
18 totally made-up data, but it's things that we see, where we
19 sometimes have trends, but then we get a spike here, and maybe
20 the correction factor for commercial fisheries was somehow high
21 that year, or recreational landings often show this kind of
22 pattern, where a couple of extra fish really spike the value
23 that year, because the total number of sightings in the
24 recreational landings might be low.

25
26 What we didn't want to do was use a maximum value for that to
27 estimate where our OFL is, and so, just as an example here, this
28 would be the mean of the catch, and this is the median, which is
29 lower, because the mean is driven up by this really high point,
30 and so what we want to do is make sure we're not using aberrant
31 data to overly set a very high OFL, even though we're going to
32 buffer that down.

33
34 In this particular case, here is the 75th percentile, and so 75
35 percent of the values are below that and 25 percent are above
36 that, and, in this case, I have just done it as a scalar. In
37 this case, it's 1.5. Remember that we could go to two, but it
38 brings us up to what our OFL would be, and then we have a buffer
39 down, which has to be at least 0.9 to get to our ABC. It could
40 be greater than 0.9, and so that's how the situation would work
41 during a stock that we are fairly confident that is not
42 overfished or undergoing overfishing.

43
44 We followed this discussion up with a couple of recommendations.
45 One is the SSC recommends a workshop for how the life history
46 parameters and ecological function would be used as input to the
47 management strategy evaluations and the development of MSY
48 proxies, such as percent spawning potential ratio, MSY proxies,

1 and/or scalar values.

2
3 As I said, our uncertainty is based on, in part, what we think
4 about the species. A species is slow-growing and lives a long
5 age and matures at a very late age, we're going to be much more
6 cautious on in setting our ABCs than we are for something that
7 grows very rapidly and reproduces very quickly.

8
9 We have a second recommendation. This is for you guys to have a
10 workshop on risk policy, and so the setting of what I was
11 calling the risk of overfishing, and I think Bonnie is going to
12 talk about that as well, and so it could be a workshop or it
13 could be something you discuss here in session, but it is
14 something that is critically important for the functioning of
15 the ABC control rule, and we want to make sure that the council
16 members are fully understanding of the process and what they're
17 being asked to do, so the output of that works for all of us.
18 The rest of this is going to be the SEDAR, and so I will stop
19 for that part, and so, are there questions on that?

20
21 **ROY CRABTREE:** Could you back up to the Tier a and b slide? I
22 think, when I asked about a consensus, I was told if one SSC
23 member objected that it's not --

24
25 **RICHARD APPELDOORN:** If an SSC member really objected, it would
26 not be a consensus.

27
28 **ROY CRABTREE:** How many people are on the SSC? Ten? One out of
29 ten, and so what would happen if one of the ten SSC members
30 objected? That means the stock is likely to be subject to
31 overfishing?

32
33 **RICHARD APPELDOORN:** It would mean that, yes, we would go to
34 that scenario.

35
36 **ROY CRABTREE:** Even though nine of the ten didn't believe that
37 was the case?

38
39 **RICHARD APPELDOORN:** There would be strong discussion on that
40 point. That's all I can tell you.

41
42 **ROY CRABTREE:** That's very troubling to me, and that seems to be
43 a flaw in this whole system. I mean, how do you rationalize
44 that? If nine of the ten believe it's not subject to
45 overfishing and one thinks it is and objects strongly, then it
46 is.

47
48 **RICHARD APPELDOORN:** The person who objects strongly is going to

1 have to provide the rationale for that objection, and it can't
2 just be, well, I don't think it is.

3
4 **ROY CRABTREE:** But what if it was I just don't think it is and
5 they had a poor rationale, but they still objected strongly?
6 Would you then dismiss their objection and overrule it or what
7 would happen?

8
9 **RICHARD APPELDOORN:** We have not faced that situation, and so it
10 was probably something that we either will try to formalize in
11 the next meeting or we would work it out at the time, but what
12 we were concerned about is any hedging the other way, and so --

13
14 **ROY CRABTREE:** What do you mean by hedging the other way?

15
16 **RICHARD APPELDOORN:** If we were split six-to-four in favor of
17 not likely to be overfished, to me, that would not be a
18 situation where we would want to go to 4a. It's going to depend
19 on the arguments that are used to set that, and if the arguments
20 that are being used to say that we're in a non-overfished
21 situation have a good basis for that, we're assuming we will
22 have consensus on that.

23
24 If the arguments are not so good or they're sort of equivalent -
25 - You know, we didn't want to have something where we're right
26 at it and then below it, because that's asking us to make really
27 fine distinctions where we don't think we have it, and so we
28 wanted to have it where either we're sure, and then we'll move
29 things up, or the certainty is such that we're not willing to
30 make that risk, and the conservative status is we go to the
31 other one.

32
33 Given the makeup of the SSC, there are a couple of, maybe four
34 people, who have a strong stock assessment background. We have
35 a number of ecologists who have a really good background in
36 what's actually happening in the field, and we are certainly
37 going to have inputs on some of these issues from the advisory
38 panels for the different islands, and how do they interpret
39 what's happening with their fisheries.

40
41 **ROY CRABTREE:** It does seem like, in this case, that there's not
42 a scenario where you -- If you just say we don't know --

43
44 **RICHARD APPELDOORN:** That would be b.

45
46 **ROY CRABTREE:** But then you're not saying we don't know. You're
47 saying it's likely to be subject to overfishing.

48

1 **RICHARD APPELDOORN:** No, we say or is unclear. We don't know.
2 That's the conservative part of it. If we don't know, we're
3 going to be conservative.

4
5 **MIGUEL ROLON:** The key to the whole thing is that the SSC brings
6 to the council OFL and ABC. We want to make sure that when they
7 bring that to us that we are not going to be sued by somebody
8 and go back through the whole process. There is two ways of
9 looking at it is what the scientists are telling us.

10
11 If the expert opinions say that they are certain that 4a can be
12 the way to go, that's what we're going to do, but, for the
13 council, what you're going to see is an ABC and OFL level for
14 each one of the species that are going to be managed. I don't
15 know whether, and this is for Iris, but, in the system that we
16 have now, once we get the ABC and the OFL from the SSC, that's
17 it. Then the council has to deal with the ACL and the other two
18 parameters. What are the possibilities of this being challenged
19 with the discussion, if any?

20
21 **IRIS LOWERY:** That is my understanding of how it's currently set
22 up. I think, by setting up the ABC control rule, this is not
23 changing that basic system. This is the ABC control rule that
24 the SSC uses to set the ABC, which the council then takes and
25 sets the ACL from that.

26
27 **CARLOS FARCHETTE:** I have Blanchard and then Bonnie.

28
29 **TONY BLANCHARD:** You know, that point that Dr. Crabtree just
30 brought up about the consensus, who determines the consensus?
31 We could have ten of us on a board, and because two of them find
32 it to be a problem, the direction we're going in, and because
33 they might be the two top scientists, we all decide that the
34 consensus goes in their favor, especially when the tendency is
35 to go to the overfishing that we look at, the tendency to hold
36 back and to be restricted to allow the fishery to be open more.

37
38 My point is this. When you have certain people, it's like going
39 down the road with no brakes. Just because it has not arisen
40 yet and you ain't hit nothing yet, it don't mean that you ain't
41 going to hit. Like Dr. Crabtree said, as for the consensus, you
42 need to have a number which sways the group or a certain amount
43 of information that sways the group to look the other way.

44
45 We just can't say, because we feel a consensus is going in this
46 direction, that we go, especially when our tendency is to look
47 at overfishing and to go that direction and to be more
48 restrictive. I am pretty sure you will back me on this. How we

1 run our fisheries here and come to a lot of decisions is looking
2 at Tier 3 and Tier 4.

3
4 That is what dictates the fisheries in the Caribbean, because we
5 can't say that we've got the data when we don't have the kind of
6 data that is looked for. We don't have moderate data, and so,
7 really, we run our fisheries down here in the Caribbean on Tier
8 3 and Tier 4, unless I am completely wrong.

9
10 Like I say, in my opinion, we have to be clear what consensus
11 is, and, to me, a consensus has got to be a number and a certain
12 amount of information. We just can't be firing shots in the
13 dark, because you ain't going to ever know where it lands,
14 especially when our tendency is to restrict the fisheries
15 instead of allowing them to be opened up further.

16
17 **CARLOS FARCHETTE:** Dr. Ponwith.

18
19 **BONNIE PONWITH:** Thank you, Mr. Chairman. First, I would like
20 to begin by congratulating the ABC Control Rule Working Group.
21 I think this is excellent work that the group has done, in
22 combination with the SSC, to arrive at this sort of suite of
23 choices and tiers.

24
25 I really like the fact that Tier 4 has a 4a and a 4b, because it
26 creates the possibility of, in cases where we don't have
27 adequate data to do a traditional stock assessment, to actually
28 capitalize on the quality of the data that we do have in hand
29 and be informed by it to make some decisions about how much
30 scientific uncertainty there is relative to that stock.

31
32 I like that we've got the latitude of that 4a. I think that I
33 would have to agree with Mr. Blanchard and Dr. Crabtree in terms
34 of being very careful to have a very crisp set of processes to
35 determine whether you rest at 4a or move down to 4b, because, to
36 me, those two categories make a lot of sense, because I can see
37 situations where we would find ourselves in one or the other. I
38 can picture that, based on awareness of the status of some of
39 these stocks and the type of data we have to evaluate that.

40
41 The thing that I think is the most important is to just have
42 very clear framework approaches for when you would make that
43 decision between a and b, and that may take a little more
44 discussion.

45
46 **CARLOS FARCHETTE:** Blanchard.

47
48 **TONY BLANCHARD:** Let me make a suggestion here. If 75 percent

1 are in favor -- In other words, the shift to be 75 to 25 on that
2 board for the consensus, and that would be fair, because if you
3 tell me that 75 is looking one way and the 25 is looking the
4 other way, we need to go with the 75 percent, because, for the
5 mere fact, and I will put this on the table, that anything we
6 here, we vote on as a consensus, and it goes by numbers. One
7 vote nay does not sway the rest of the council.

8
9 **CARLOS FARCHETTE:** I have Bonnie.

10
11 **BONNIE PONWITH:** The challenge that I have with that approach is
12 we're looking at two different things. We're looking at how
13 many people on the SSC are choosing a versus b, and we're
14 looking at the weight of the rationale for that decision. In a
15 case where there is expert opinion, the weight of that
16 rationale, I think, is really, really crucial, and I think
17 that's what makes the decision more complicated than a simple,
18 stand-up vote.

19
20 For example, if you were looking at a species that has undergone
21 a certain level of fishing for a very long time, the fishing has
22 been stable, and the length frequency has been stable, and you
23 know that the catchability hasn't changed, there could be strong
24 indications that that stock could comfortably be in a. You
25 would want to be able to weigh the quality of the information
26 you have with almost a matrix approach for how you make that
27 decision about whether it's a 4a or a 4b.

28
29 **CARLOS FARCHETTE:** Blanchard.

30
31 **TONY BLANCHARD:** Okay, but this is the way I see it. If they've
32 got ten of us here on a council, let's say just drawing a rough
33 estimate and example, and four of us have strong rationale going
34 in a completely different direction, and six is not, if those
35 four have a strong rationale that what is going to happen, if
36 you know what you're talking about, you're going to sway that
37 vote from one to the next, and so the consensus would shift, is
38 what I am telling you, because we all know what we're talking
39 about.

40
41 It would not stay a head-butting over something minor, in my
42 opinion, because we would all know what we're talking about, and
43 my argument would be so good that I'm going to sway your vote,
44 and so that's how I see it.

45
46 **RICHARD APPELDOORN:** That's exactly how we function, and that's
47 how I would expect it to work in the SSC.

48

1 **CARLOS FARCHETTE:** Roy.
2
3 **ROY CRABTREE:** The rules of how SSCs function isn't particularly
4 consistent from council to council, and, in the Gulf of Mexico,
5 the SSC operates under Roberts Rules of Order, and they make
6 motions and they vote. In the South Atlantic, the SSC is a
7 consensus body, and they operate similar to this.
8
9 There are problems with all of it, because you can have an SSC
10 in the Gulf that is operating under Roberts Rules of Order, and
11 they can have a vote that is eight-to-seven and passes by one
12 vote, and that is the answer that the council has to live with,
13 even though the SSC was split on it and there is no consensus
14 there. There are problems with all of it.
15
16 I think, ultimately, the difficulty with all of this is, in
17 these highly uncertain conditions where the answers aren't clear
18 to anybody, we are falling back on, as it says, opinion. The
19 trouble is, once that ABC comes out of the SSC, it's almost like
20 what's the council's role then in weighing in on those opinions,
21 because this council presumably is made up of experts as well.
22
23 They're maybe not scientific experts in every case, but experts
24 nonetheless on aspects of the fishery, and I think the tension
25 here and the difficulty is figuring out how the council and how
26 the SSC interact and how all of these opinions are melded
27 together into some sort of consensus between the council and the
28 SSC about how to proceed, because expert is opinion is fine, and
29 it's a good thing, but it's not the same as hard science that
30 tells you this is the answer.
31
32 It still is just an opinion, and I think that's really the
33 problem that we struggle with, and I have seen it, in many
34 cases, where councils felt like they were given an ABC and there
35 was nothing they could do about it and no avenue to really weigh
36 in on it if they disagreed with it, and so I think that's some
37 of the struggle here that we're dealing with.
38
39 **RICHARD APPELDOORN:** In the past, when we've been doing this,
40 especially when we were developing the rules that we're
41 currently operating on, we had a lot of input from the
42 fishermen, especially from the Virgin Islands, who came onboard
43 and said, you know, here is what's going on, in our best
44 judgment, and I think the SSC, if we're in this situation, would
45 feel uncomfortable, if there was input from the panels on what
46 they thought the situation is for these species.
47
48 As you said, it's expert opinion, and it's just not the expert

1 opinion of the SSC, if we're going to have to an assessment, a
2 guess, an estimate, about where a fishery stands. It's the
3 SSC's decision to make that final call, but, if we're not
4 looking at all of the available experts to weigh in on that, I
5 don't think we would be doing our job.

6
7 **ROY CRABTREE:** That gives me some comfort to hear that, and I
8 think that is true of the SSC, in my experience, and I think, in
9 these cases, some amount of back-and-forth and iteration between
10 the council and the SSC is needed.

11
12 **CARLOS FARCHETTE:** I have a follow-up by Blanchard, and then I
13 have Hanke.

14
15 **TONY BLANCHARD:** I am going to speak from experience, seeing
16 that I am a St. Thomas fisherman. The thing here that drives
17 our market is this is market-driven. People tell us what they
18 want, basically. It's like going to the supermarket and
19 something sells. Once something sells, you're going to push it
20 on the market more, because you've seen what is selling quicker
21 and what is not selling as quickly.

22
23 I can't see how we could keep labeling something as an
24 overfishing level when we can't say that we're overfishing to
25 begin with, because I can't see us going there in a market that
26 is selected on an island, because we don't export nothing, and
27 so this is the problem that I have when we want to start
28 throwing in overfishing levels and everything else.

29
30 You can't overfish, because you ain't pounding the fishery that
31 hard. Right now, we are scaling back on the amount of fishing
32 we're doing, because of the market. The market is slow right
33 now. You've basically got to pass out your fish on credit to
34 get it off your hands.

35
36 I mean, we keep throwing out this thing about the overfishing
37 level and overfishing, but I can't see how you overfish a
38 fishery that you ain't really putting the pressure on, because
39 it is a stable fishery. The numbers that these came off of --
40 If you look back at when Dr. Olsen was here, he had numbers
41 going back to when he first started doing catch reports.

42
43 The fishery, at that time, was showing stable numbers basically
44 across the board. There was only maybe one or two years in
45 between that time period where we went over a certain amount of
46 catch, and so the numbers that were taken from there, they're
47 basically flowing straight through, and so that was the numbers
48 that we take for the ACLs, and that's not to say that we

1 couldn't have pushed a higher fishing level if we had really put
2 pressure and starting exporting it, because then we would be
3 looking at a higher ACL for us.

4
5 Because of how our business is done, in a market-driven
6 industry, when fish move in, we press. When they slow up, when
7 business slows up, then we step back, and so I can't see how we
8 come to the overfishing thing.

9
10 **ROY CRABTREE:** When you're not pressing and the market is not
11 good and you pull back, and for fisheries that are mostly from
12 fish traps, how does that work, because the traps are still out
13 there, right?

14
15 **TONY BLANCHARD:** Yes.

16
17 **ROY CRABTREE:** Do you just stop pulling them or do you stop
18 baiting them?

19
20 **TONY BLANCHARD:** We stop pulling them.

21
22 **ROY CRABTREE:** The fish go in and out of the traps?

23
24 **TONY BLANCHARD:** We got a survey through the college that
25 verifies that the fish go in and out of those traps, because
26 there was an argument that continuously used to come to the
27 table where the traps were out there and they are fishing. They
28 hooked up a camera on the trap, and the trap was being
29 monitored, and it shows where the fish is going in and out of
30 that trap.

31
32 **ROY CRABTREE:** They go in and out the funnel?

33
34 **TONY BLANCHARD:** That's correct, and so that argument that was
35 being brought to the table, they just shut that down, and so the
36 pressure is dictated when the market. When the tourist boats
37 start coming back in, local people are going to start buying
38 more. They've got more money in their pocket to spend.

39
40 When the tourist boats leave, because we work off of tourism and
41 that's all the money we've got here, then we force a cutback,
42 and so, where we will go and fish maybe three times a week,
43 we're down to one day a week now, because we've got to try and
44 move that on the market. Where it would have taken us one or
45 two days to move it, now it's taking us a week to move it, if we
46 can move it, and so are restricted by the market.

47
48 **CARLOS FARCHETTE:** Miguel, and then I've got Hanke.

1
2 **MIGUEL ROLON:** I suggest to let Dr. Richard Appeldoorn finish
3 his report. He had three reports, and then we have to ask the
4 question to the council that will get into all of the
5 discussion, and please try not to confuse the SSC process with
6 the council process, which is what you are doing here.

7
8 What Dr. Roy Crabtree is bringing to the table is that, and
9 Richard answered that, is that, when you have an expert opinion
10 -- Actually, a long time ago, I said, when you don't have data,
11 politics rule. If we have a lot of data for all of these
12 fisheries, we won't be discussing any of this, but the fact that
13 we have a lot of species with very low information for each one
14 of the species, it forces science to look into ways that they
15 can assess the situation and then provide the advice that
16 legally they are supposed to provide to us.

17
18 Dr. Richard Appeldoorn already said that this is not something
19 that they did last week. It is something that they have been
20 doing through the process, and they have been conferring with
21 members of the industry and all of that, and they came up with
22 that.

23
24 For a scientist to condemn a fisherman not to fish for a
25 fishery, and he doesn't know much about it, it's a human thing
26 to feel that you don't feel -- You don't feel good about it, and
27 so that's what they are trying to offer, is something that,
28 number one, complies with the law, and, number two, from the
29 scientific point of view, is a sound thing to do.

30
31 I personally would like to continue with the consensus thing.
32 If you go with Roberts Rules, we are worse in an area like this,
33 because then you have a vote. Let's say that it's six-to-four,
34 because they have ten, and then you adopt an ABC that you have
35 to live with it, and it doesn't make any sense. That is what
36 Dr. Richard Appeldoorn is trying to convey here.

37
38 I encourage the group to wait until he finishes the presentation
39 and get into Bonnie's presentation also, because that's when we
40 are going to ask the council, or they are going to be asking the
41 council, what is the risk that you would like to authorize or
42 that you would like to adopt for this council on the species
43 that you need to manage, and the rule of thumb is how much we
44 can get away with. I want to fish as much as possible, and how
45 can I do it legally? This is all the discussion that we have
46 here.

47
48 The 50 percent of MSY is a you shall not go over MSY. You shall

1 not overfish. In the past -- Just put a period after that. You
2 shall not overfish, and so you have to play then with the tools
3 that you have, with the information that you have, and then you
4 have to make a decision as to how much of a risk that you are
5 willing to take that a fishery will not go in an overfishing
6 situation or overfished.

7
8 4a and 4b, the only difference is that when you have something
9 that is unlikely to be subject to overfishing, and so we feel
10 it's kind of okay, then we go with 4a. When we have a situation
11 where we think that this species, talking to the fishers or
12 talking to industry or looking at statistics, seems that they're
13 on the downward side, then we have to take this approach to
14 provide to the council the advice that they need to make a
15 decision, management decision, using the ABC that you will have.

16
17 Some of the species that you have here, you will never, ever
18 have the information that you need to have a decent ABC, and
19 that's why you have to have the expert opinion. We have 4,000
20 species here, and some of them -- The other day, we were talking
21 about it, and the ACL of a species is seven pounds. We got
22 nine, and we spent an hour talking about the two pounds
23 difference, and so we've got two streams, and then you have the
24 lobster and all that.

25
26 Can we allow Dr. Richard Appeldoorn to finish and make notes and
27 then we can get into the discussion of what he needs from us and
28 Dr. Ponwith, and then we can open the discussion again, because
29 there is a lot of complex formulas here. Every time I see a
30 formula, I shut down. I like the graphs. Please, can you
31 finish?

32
33 **RICHARD APPELDOORN:** Essentially, those two recommendations,
34 which were the next slide, were the end of the ABC part of that,
35 and so my understanding was maybe I was going to stop at that
36 point and the council would pick up that with Bonnie's
37 presentation, and then I will come back to the SEDAR 46 part of
38 that.

39
40 Just a comment on Tony's description of the market-driven system
41 is if you look at red hind landings as a perfect example, the
42 last couple of years, they have been going down, as the economy
43 and the demand has dropped. It would be irresponsible of
44 anybody to look at that and go, hey, that's overfished and we've
45 got to reduce from there.

46
47 That is exactly the kind of input we need to say the experts in
48 the field, in this case the people dealing with the markets, say

1 we're not anywhere close to where we used to be fishing and we
2 can't possibly be in an overfished situation and we need to go
3 to 4a and okay.

4

5 **CARLOS FARCHETTE:** Okay. Hanke.

6

7 **MARCOS HANKE:** I will try to be quick. The approach, what I see
8 from this presentation and this stop that we're discussing now,
9 we are looking for fairness and a clear path, because of the
10 legal aspects and scientific aspects and so on. What Tony
11 presented of the 75 percent as let's say a mechanism of the SSC
12 to go one way or the other is fair if -- The way I see it is,
13 first of all, have the intention of going for consensus, as an
14 instruction to everybody to look and do the hard work, like you
15 do now, for the consensus.

16

17 If you don't have the consensus, go to the 75, and then, with
18 all that input from that scientific discussion, come back to the
19 council and get more expert discussions now with more
20 information that the SSC is going to provide to us and then go
21 back to you guys and you guys can decide with all the expert
22 level of discussion, scientific and people from the field.
23 Otherwise, we're going to be leaning towards something that, as
24 a council member, I don't agree on the ten-to-one thing.

25

26 **RICHARD APPELDOORN:** We would certainly want to have that input
27 before we get into any consensus building and not afterwards.

28

29 **CARLOS FARCHETTE:** A follow-up?

30

31 **MARCOS HANKE:** My clarification is that once we give the input
32 and you guys have the discussion, it's different. After the
33 discussion that you deeply analyze and then you -- Let's say,
34 for any species, you have a problem, and just, under that
35 circumstance, the council should have another opportunity to
36 weigh in on this new information and analysis that you guys made
37 that maybe we have something to say and have a final decision
38 from you guys. The decision is yours. It's an SSC decision,
39 but it's just a request from the council to be more
40 participative and not partially be involved on the discussion on
41 the way in.

42

43 **CARLOS FARCHETTE:** You only have like one or two slides left for
44 the ABC?

45

46 **RICHARD APPELDOORN:** That's it.

47

48 **CARLOS FARCHETTE:** You're done? Okay. Then I have a question

1 from Julian.

2
3 **JULIAN MAGRAS:** Richard might be able to answer the first
4 question. My first question, before I get into a little
5 discussion here, is, when the SSC met, was there any discussion
6 at any point of taking into consideration that the U.S. Virgin
7 Islands fishery is market driven?

8
9 **RICHARD APPELDOORN:** Absolutely.

10
11 **JULIAN MAGRAS:** Okay, because I have a big problem when we say
12 overfishing and you use the word that comes up is "uncertainty".
13 Like Mr. Blanchard said earlier, how can you have overfishing if
14 you really don't know what the fishery is capable of because we
15 don't export and we are market driven?

16
17 You guys did a lot of work, and I appreciate all the work that
18 the SSC has done this week, and I know the whole process. I've
19 been to many meetings, and it's not an easy process, and what I
20 see always coming out of this here is to meet the expectations
21 of the Magnuson-Stevens Act and the duties that are given to you
22 guys is the fishermen are always the ones to be penalized
23 through this process. Because of that word "uncertainty" and
24 "overfishing", it's where we are hit the hardest, but, actually,
25 the uncertainty falls on the scientists and the people who
26 collect the information, and the overfishing is not there,
27 because you don't really know what the fishery is doing.

28
29 At least for the USVI, I can say that, and Tony laid it out
30 clear. Dr. Crabtree asked the question earlier about us scaling
31 back, and I am in the same situation as Tony. We were going
32 three times a week, and we're down to one day a week right now,
33 and the next competition that we are having right now, big time,
34 is, instead of we don't export, they are importing now.

35
36 They have just started to import the same fish that we are
37 catching in our fishery and selling it at a lot cheaper price
38 than what we sell it, and so here it is again, more competition,
39 where we have to scale back even more, but then we listen to the
40 words of "overfishing" and "uncertainty", and I am asking the
41 council and the SSC and the Science Center and everybody to
42 please take a careful look at this, when we're going to be
43 making this final decision on the ABC, because what's going to
44 happen in making this decision is going to cause us to go over
45 those levels when we have the opportunity to do that.

46
47 I appreciate all that you guys are doing, but, please, when you
48 guys sit down here -- We've been working together and we've been

1 collaborating more. You guys have been listening to the
2 fishermen, and we have been given more and more information. We
3 are even working with our local governments and creating new
4 catch forms to gather more new information, which you guys will
5 hear about later on today, but you guys need to really look at
6 the "uncertainty" and the "overfishing" words that are being
7 used, because you don't have that information.

8
9 **RICHARD APPELDOORN:** I will reiterate that I wouldn't want to go
10 through these determinations without you and Nelson and Ed in
11 that meeting, and perhaps others that can provide that kind of
12 information to these discussions at the time we're having them,
13 so there's no uncertainty in that point.

14
15 The situation you're describing now for the Virgin Islands, I
16 would agree with you is a very clear situation of currently
17 there is not overfishing going on, and the SSC would certainly,
18 I think, I agree with me, without any problem, on that.

19
20 Our challenge is going to have to -- It's going to be a
21 challenging process, because we have new data. The data that
22 we've been using in the past is probably not what we're going to
23 use, but that data is an underfished situation, and so we're
24 going to have to figure out how to combine all of that, but, if
25 you're talking about where we are now and the situation we're
26 in, I think most of us would agree that you're not overfishing
27 and we would be in a 4a.

28
29 The other point I wanted to make, and I will get into this when
30 I talk about the SEDAR results, is that we think we actually
31 have a situation, and we're starting to get data in the form
32 where we can actually move to Tier 3, and that's going to help
33 us a lot in determining how much uncertainty we have. If that's
34 true, that's going to be a whole new ballgame.

35
36 Now, obviously a lot of our stocks are not going to have the
37 data trends right away to be able to do that, but those data are
38 being collected for a good majority of them, and so possibly the
39 top ten species for each island platform might be able to fall
40 into these categories, based on the testing that's been done so
41 far. While we're arguing 4a and 4b, we're hoping we're going to
42 be moving into Tier 3.

43
44 **CARLOS FARCHETTE:** Coast Guard.

45
46 **LT. FAIR:** Thank you. Lieutenant Fair with the Coast Guard.
47 Just for a point of clarification, I wanted to ask -- We are one
48 council, but kind of broken up geographically all over the

1 place. Was there any consideration to establishing a
2 geographically-specific OFL based on the islands, based on San
3 Juan, instead of making it an overarching OFL, but maybe
4 geographically based to take into consideration --

5
6 **RICHARD APPELDOORN:** It's all based on each island platform.
7 Each island plan has its own assessment.

8
9 **CARLOS FARCHETTE:** Okay. I had a couple of questions, Rich, if
10 I understand my chicken-scratch here. If the council decides
11 not to have a buffer, you said that that's when the standard
12 variance comes into play?

13
14 **RICHARD APPELDOORN:** You have to have a buffer for the use of
15 the standard deviation to be used to set the ABC. If you don't
16 have that, then we will have to make two adjustments for
17 uncertainty, one that would act as if it was that kind of a
18 buffer, even though it would be based on scientific uncertainty
19 and not necessarily the risk of overfishing.

20
21 **CARLOS FARCHETTE:** Another question. The formula that you were
22 using there earlier, and it was mentioned here before, does that
23 formula take into consideration the plate-sized market, the no
24 export, and the release of larger fish?

25
26 **RICHARD APPELDOORN:** Yes, to the degree that that comes into
27 play, but this is your decision. Setting that level across all
28 fisheries -- Some of the species that have these different
29 aspects that you're talking about come in at the assessment
30 stage, and those assessments do build into the process the
31 things that you're talking about, to the degree that we possibly
32 can.

33
34 Remember the famous saying is all models are wrong, but some
35 models are useful. Models are simplifications, and our Tier 3
36 is about as simple as you can get, but they are indeed designed
37 to take into account those kinds of modifications, shall we say,
38 that are market driven.

39
40 You will notice that there are certain things that the SSC sets,
41 and that's how big is that variance going to be, and, to the
42 degree that we know that, hey, the spawning aggregations are
43 closed and those fish are safe and the big fish aren't being
44 caught and those fish are safe, et cetera, et cetera, the
45 narrower we can make that thing and the more closely the ABC
46 will be to the OFL, and so, yes, we're all cognizant that --
47 That's why we can't just give you a value, because it's going to
48 depend on the characteristics of not only the species, but also

1 the fishery and unique properties of that for each of the
2 islands, and so we want to be responsive to exactly those kinds
3 of things.

4
5 **CARLOS FARCHETTE:** I strongly recommend, I think in one of your
6 slides about the workshop for the council, and, that way, we can
7 understand it much better, the setting the risk of overfishing,
8 and so hopefully that will happen. Let me go to Hanke while I
9 gather my thoughts here on this other question.

10
11 **MARCOS HANKE:** Can you go back to the graphic where the variance
12 was expressed there, to have a question? My question is the
13 width of that graphic, which is the variance that you explained,
14 once we design the formats to collect the data and once you get
15 to the reality of how the fishermen provide information -- Let's
16 say lobster. If you have more compliance on one gear, on pots,
17 but divers are not reporting and so on, depending -- My question
18 is the variance would be very much affected by the compliance of
19 each sector or each gear that are being reported? How does the
20 reporting and those variations affect the variance, if any?

21
22 **RICHARD APPELDOORN:** That's a really good question. Only
23 certain sectors are collecting data on certain species, driven
24 by what they're targeting, obviously, and usually we will try to
25 take the best information available.

26
27 If a species is largely caught by spearfishing, we're going to
28 use the diving data. If it's caught by trap fishing, we will
29 use the trap data, et cetera, to try and run the assessments to
30 generate these kinds of probability density functions.

31
32 The changes that we were looking at will be driven by all
33 sources of fishing mortality. When you look at the average size
34 of the catch, that's driven by all the mortality that's being
35 placed on that, but we can use the best available data to say
36 that relates to fishing mortality, and the same thing with catch
37 per effort. What you catch is a function of what's out there,
38 regardless of what's killing it, but, if we have one good set of
39 data that's fairly standardized, we get a good catch index of
40 that.

41
42 Perhaps the one that's a little bit more problematic is size
43 structure, because, if different gears are targeting different
44 size groups, then we have to make sure that we're accounting for
45 that, and the models can do that, as long as we know that's what
46 is going on.

47
48 Yes, these can affect the variance, and so the more -- How the

1 variance is set is remember we said there's a critical value,
2 and it's got to be above that. As our uncertainty gets greater,
3 that critical value gets a little larger, but we could set it
4 much more than that if we really don't have confidence in the
5 data coming in. If there is lots of compliance and data is
6 coming in, we're going to set that at the minimum required
7 value. That just makes sense.

8
9 **CARLOS FARCHETTE:** We're going to go ahead and move forward to
10 island-based. I have some more questions, but I will wait until
11 after this presentation, but I would like to also recognize
12 Ricardo Lopez, and can you put your name on the record, please?

13
14 **RICARDO LOPEZ:** Hello to everybody. Good morning. My name is
15 Ricardo Lopez Ortiz, and I work in Puerto Rico DNR, especially
16 in the Division of the Fishery Research Lab.

17
18 **CARLOS FARCHETTE:** Graciela.

19
20 **GRACIELA GARCIA-MOLINER:** Although we are having problems with
21 Go to Meeting right now, you do have quite a number of people
22 listening in to the conversation and the discussion: Jeff Isely,
23 Meaghan Bryan, Stephen Holliman, Michael Jepson, Denise Johnson,
24 Kevin McCarthy, Shannon Calay. They are listening from the
25 Southeast Fisheries Science Center and the Region, and you also
26 have fishers from the USVI listening in. That's why we're
27 really trying to get this working, because they have called in,
28 and they want to listen to the discussion.

29
30 **CARLOS FARCHETTE:** We are working on the audio, but, Richard,
31 the show is yours again.

32
33 **MIGUEL ROLON:** Mr. Chairman, Richard just finished one part of
34 his presentation, and we are going to interject Dr. Bonnie
35 Ponwith's presentation, and then Richard will go back for the
36 third part of the discussion. Then, afterwards, you can go back
37 and make more questions and make sure that you understand
38 everything that is being said. The SSC has two more
39 recommendations, and so, at the end of the three presentations,
40 please look at the recommendations from the SSC and tell us what
41 you want to do, whether adopting those recommendations or
42 modifying them somehow.

43
44 **CARLOS FARCHETTE:** Okay. Dr. Ponwith.

45
46 **BONNIE PONWITH:** Thank you, Mr. Chairman. I've just got a
47 couple of slides that we will put up, and they're going to look
48 very familiar to you. They're going to be the same slides that

1 I showed you back in June, but use those as a backdrop to
2 discuss the decision that you've got relative to a probability
3 of overfishing.

4
5 Again, this is just kind of a refresher on the ABC control rule,
6 and I think Dr. Appeldoorn did a really good job of introducing
7 this, but just to rehash it again, it's an agreed-upon procedure
8 codified in the FMP for setting the ABC for a stock or stock
9 complex as a function of scientific uncertainty.

10
11 Each council must establish an ABC control rule based on
12 scientific advice from the SSC, and so that's what you just got,
13 is an overview from your own SSC about their ideas for the ABC
14 control rule. The SSC must recommend the ABC to the council,
15 and then they may recommend an ABC that differs from the ABC
16 control rule, but it has to explain why. Essentially, those are
17 your ground rules for setting ABC from that point forward, once
18 that ABC control rule is established.

19
20 It can involve complex drivers, based on measures of stock
21 biomass, measures of uncertainty, forecasts of environmental
22 effects, and other things. Again, it can be tiered, and we saw
23 a very good example of that in the tiered approach that you just
24 saw in Dr. Appeldoorn's presentation.

25
26 Today, what I would really like to focus on is the ABC control
27 rule, the portion of that that actually lands to the council for
28 their decision, and so, again, scientific uncertainty falls into
29 the role of the SSC to manage, to set OFL and to set the ABC
30 level and give that to the council, but, in advance of that,
31 it's the council's responsibility to take a look at their ABC
32 control rule and set the level of risk that the council is
33 willing to accept that overfishing will not occur.

34
35 The National Standard Guidelines give us some information about
36 that, and the Guidelines say that that probability cannot be 50
37 percent or higher. Essentially, what that means is that if you
38 set an ABC, the chance that that ABC actually results in
39 overfishing can't be greater than a 50/50 chance. It has to be
40 lower than that.

41
42 What we're talking to you about today is what should that
43 probability be? If 50 percent is the bar that you can't exceed,
44 what should it be? This is the decision that we are looking for
45 the council to make. The ABC control rule can't be completed
46 without the council's decision on this.

47
48 Again, what you see here is a graph. It's very similar to the

1 graphs that Dr. Appeldoorn showed, and it shows catch on the X-
2 axis that is going along that continuum, and you see, at the
3 very peak of that distribution, the OFL, the overfishing level,
4 and the idea is to pick a P* value, a probability, that never
5 exceeds that 50 percent chance of overfishing.

6
7 We have taken a look at what is a typical choice that other
8 councils have made. You're not held to what the other councils
9 have done in setting your choice, but those choices can be
10 informative. From our analysis, we have seen these percentages
11 set anywhere from 30 percent to 50 percent or lower, and the
12 decision process that they use for setting that is sometimes a
13 one flat decision, where they make that decision and it's used
14 all the time.

15
16 There are other times where they use an analysis called a
17 productivity and susceptibility analysis, where it takes some of
18 the life history of the animal into consideration in setting
19 that probability, but, again, just to review, the shape of that
20 curve, that blue curve, is defined by the uncertainty in the
21 status of the stock, and so that's driven by the animal itself,
22 and that's already been taken into consideration.

23
24 The decision that we're looking for the council to make is what
25 probability below 50 percent are you comfortable in selecting as
26 your probability that you will not exceed -- That the ABC that
27 the SSC provides you does not exceed the overfishing, does not
28 result in overfishing, and so I guess what I will do is stop
29 there and see if there are questions about this, because what we
30 would like to do is have a discussion within the council about
31 this and decide does the council have information that they feel
32 they need to set this level now or, if there is more information
33 that we can provide you, more discussion that we can have with
34 you, to help prepare you for making that decision, what you
35 think that information or those discussions might be.

36
37 **CARLOS FARCHETTE:** Miguel and then Blanchard and then Hanke.

38
39 **MIGUEL ROLON:** Bonnie, in the minds of everybody, it's almost
40 like, okay, how does that translate into the percentage that I
41 would be able to fish, and can you address that? I know the two
42 terms are different here, because we are talking about
43 probabilities, but the bottom line is, at the end of the day,
44 how much I can fish. One last question is this will apply to
45 every species or it will be by species-by-species?

46
47 **BONNIE PONWITH:** Excellent questions. I will answer the last
48 question first, and the answer is yes, we would pick this

1 probability, and it would be used across all the species, and so
2 it would be a decision that would be used for all of the species
3 that we're working with.

4
5 The question is how does this decision influence how much you
6 can catch? The answer to that was really illustrated quite
7 elegantly, I thought, in Dr. Appeldoorn's presentation. Take a
8 look at the shape of that blue line up there. The skinnier that
9 blue line is, the closer that percentage that you select, the
10 smaller the effect that percentage will have in your catch.

11
12 Again, here's the example right now. There is 40 percent, and
13 so let's just say that the council decides that a 40 percent
14 probability that the ABC you're using results in overfishing.
15 In that situation, and for the shape of this curve, that blue
16 line to the left is what that catch would equate to, and you see
17 that that catch is quite close to the catch you would have at
18 OFL.

19
20 Now, if the shape of this line, of this curve, were wide, then
21 what would happen is that line might end up down here instead of
22 here, and so the skinnier this curve is, the closer that is to
23 your OFL, and so, for any one species, the shape of the curve is
24 driven by scientific uncertainty and our knowledge of the true
25 status of that stock, and the percent that you're picking is
26 simply a probability that the ABC you're using will not result
27 in overfishing.

28
29 They're two separate things, but they both will influence catch.
30 Now, all things being equal, the lower you set that probability,
31 the more conservative that probability is. 50 percent is too
32 high. We want it something lower than 50 percent to meet the
33 needs of the National Standards, but the lower you have that
34 number, the more conservative it is and the more it influences
35 or reduces the catch that you're able to harvest.

36
37 We discussed some ranges of what other councils have selected.
38 They have been as low as 30 percent. A common level that's been
39 selected by other councils is 40 percent, and so what that means
40 is, if you use that probability, that means that the ABC advice
41 you're given from your SSC on any given species only has a 40
42 percent probability that it will result in overfishing, which
43 creates that comfortable buffer that you haven't exceeded
44 overfishing through the fishing advice that you're putting in
45 place.

46
47 **CARLOS FARCHETTE:** Roy and then Blanchard and then Hanke, and
48 then we need to take a break.

1
2 **ROY CRABTREE:** The problem is, Bonnie, that all sounds good, in
3 terms of theory, but the reality is we don't know what the blue
4 curve shape for anything is down here, as far as I know, and so
5 how are we supposed to make a choice? If the blue curve is
6 really big, we might make one choice, and, if it's very narrow,
7 we might make another choice, and so, without knowing it, I am
8 not sure how we get to that.
9
10 **BONNIE PONWITH:** With the council's indulgence, I think it would
11 be valuable to have Dr. Appeldoorn join in this conversation.
12
13 **RICHARD APPELDOORN:** That's the whole point of dealing with
14 uncertainty by the variance structure on that curve. If you
15 really don't have -- These are coming out of assessments, and,
16 if the assessment isn't very good, the curve is going to be
17 wider, and you're going to want to be more cautious, because the
18 assessment isn't just that good as one that has a very narrow
19 confidence, and this is really the basis of how ABC control
20 rules are driven in all the other councils, and so we're not
21 inventing anything new here, but we are saying that if the
22 variance is truly representative of our degree of uncertainty,
23 which statistically it is, that's what we want to use to adjust
24 the ABC by.
25
26 **CARLOS FARCHETTE:** Do you have a follow-up, Roy?
27
28 **ROY CRABTREE:** Almost all of our ABCs don't come out of
29 assessments. They're coming out of just landings, and, in
30 theory, I think we would all like to have a very low probability
31 of overfishing, but we also want to have fisheries, and so it's
32 difficult to know how to balance those two without some prior
33 knowledge of what consequences it has, right?
34
35 **RICHARD APPELDOORN:** But these are only being applied when you
36 have that kind of situation, and so, for us, it's going to be a
37 Tier 3.
38
39 **CARLOS FARCHETTE:** Bill and then Blanchard.
40
41 **BILL ARNOLD:** I just want to make sure that I've got this right,
42 and so I might not phrase this as a question, but it is a
43 question. As Roy points out, we don't have any assessments that
44 have been successful. It's not likely that anytime in the near
45 future we're going to have successful assessments and, even if
46 we do, it would be for a subset of the species we manage and so,
47 for a large number of species, we're going to have to use
48 average catch.

1
2 If I understand this correctly, the variance we're talking about
3 is really the year-to-year variability in landings around that
4 average, and so, if you've got a species that you pretty much
5 catch -- Your average is 100,000 pounds a year, and you never
6 really go above 105,000 pounds, and you never go below 95,000
7 pounds, you've got pretty tight bounds around that.

8
9 You could conceivably set your ABC closer to your OFL, because
10 you know you just don't vary that much, and so that's your
11 variability. It's not going to be very large. Your curve is
12 going to be tighter, because there's just not that much
13 difference from year to year.

14
15 Compare that to a species where you also average 100,000 pounds,
16 but one year you get 150,000 and another year you get 50,000,
17 and so now you don't really know, from year-to-year, what you're
18 going to get, and you're worried about those high years, because
19 it only takes one year of high landings to go over your OFL and
20 for us to declare that species to be undergoing overfishing.

21
22 For that one, you would want to have a much larger difference
23 between your OFL and your ABC, to try to keep your allowable
24 catch, in at least 50 percent of your years, and ideally more
25 than 50 percent of your years, below that OFL, so that you don't
26 enter a stage where you're undergoing overfishing and new
27 management measures have to be enacted.

28
29 That's the way I'm seeing it, but I'm not sure -- This is
30 basically your Tier 4 situation, the one we're facing for most,
31 if not all, of our species, and that's how I am understanding
32 it. I don't know to what degree that is correct.

33
34 **CARLOS FARCHETTE:** Blanchard.

35
36 **RICHARD APPELDOORN:** Can I respond to that?

37
38 **CARLOS FARCHETTE:** Sorry. Rich.

39
40 **RICHARD APPELDOORN:** You are mixing two things. This P* buffer
41 that is on the screen now only applies to a distribution of a
42 probability density function of MSY or OFL, and, when you're
43 dealing with a landings situation, you don't have that. You're
44 not dealing with say a normal distribution of landings and then
45 applying some P* value to that. That is not what is happening.

46
47 Now, you are correct in the sense that if something has fairly
48 narrow band on its landings versus something that has a wide

1 variation in its landings, that there is a difference in concern
2 about those, but the first determination would be are those
3 reflective of something that is overfished or not?
4

5 You can have large fluctuations in landings, say our
6 recreational landings, that are driven by the data collection
7 system and not reflective of necessarily whether the stock is
8 overfished or not overfished. If we thought a stock was
9 overfished, and there is wide fluctuations in the landings, yes,
10 we would be concerned about whether a really high landing could
11 lead to a rapid decline, and that might then go into the level
12 of scientific uncertainty about where we are, but the buffer
13 that you're talking about here is not being applied in Tier 4.
14 That's a whole different thing.
15

16 **CARLOS FARCHETTE:** Blanchard.
17

18 **TONY BLANCHARD:** Dr. Crabtree just made a very good point, but
19 I'm going to ask this, because it's a legal question, and it's
20 going to Iris. What's the smaller buffer that legally we can
21 get away with here?
22

23 **IRIS LOWERY:** As Bonnie stated, what the National Standard 1
24 Guidelines currently say is that the probability of overfishing
25 must be 50 percent or less.
26

27 **TONY BLANCHARD:** Okay. What's the least, the smallest, that we
28 could get away with legally?
29

30 **IRIS LOWERY:** I think it depends on the circumstances, which is,
31 I recognize, a very legal answer, but it really is going to
32 depend on the circumstances of the fishery, and I would
33 encourage the council to think about the basis for any decision
34 that you're making here and how the record is going to support
35 that decision, and so I can't answer what is the least, but I
36 would really encourage you to think about what's the rationale
37 for whatever level the council decides, ultimately.
38

39 **TONY BLANCHARD:** Let me give it a rationale. You are kind of
40 deflecting the answer that I'm looking for, but I understand
41 what is going on. The statement I am going to make here is we
42 are a market-driven business down here. We ain't talking about
43 in the states and how they run their business.
44

45 As far as I'm concerned, we ain't going straight across the
46 board with ones we overrun the percentages that we are pulling
47 off is going to be straight across the board, because if we've
48 got more information on one species than the other, I don't

1 think it should be directly as something comes into play that we
2 push the 30 percent reduction on or whatever we decide on. This
3 should be going by species and what information we have on them.
4 Now, I understand, to make it easy, it's probably easier to go
5 that road, but I ain't really into the easy thing.

6
7 Now, why I'm asking what's the smallest percentage we could get
8 away with is because, like I said, I don't feel that our markets
9 has been pushed as far as we could push it, because we don't
10 export anything. I really want to catch as much as I can catch
11 legally, so I can make my money, and that's the bottom line.
12 This is all about money and who is making it, and I'm trying to
13 make mine, and so I want to know legally how much I can ask for,
14 to push that button there.

15
16 I probably ain't going to get what I ask for, because I ain't
17 Santa Claus, and so we ain't going to go that route, but I am
18 going to try and get away with as much as I can get away with
19 once I get the information to back what I believe is going on,
20 and so that was my question. I know you don't want to throw a
21 number out there, but that was the question.

22
23 **CARLOS FARCHETTE:** Miguel and then Bonnie.

24
25 **BONNIE PONWITH:** I am observing something by your question, and
26 that is that I want to make really clear that the thing that
27 we're discussing isn't a cut in your landings directly. It's
28 not you need to take a 50 percent cut in your landings. What it
29 is, it's an analysis that says if you set an ABC with the goal
30 of avoiding overfishing, and so you set that ABC -- The SSC
31 gives you ABC advice, and the goal is to not allow overfishing,
32 and it is looking at that ABC advice, using statistics, to say
33 what is the probability that that advice actually does avoid
34 overfishing?

35
36 What the law is telling us is, according to counsel, is that it
37 has to be 50 percent or lower, and, if you pick 50 percent, what
38 you're saying is that if you set an ABC like that, using that,
39 there is an even chance that that ABC ends overfishing or does
40 not end overfishing, which creates an awful lot of risk that you
41 didn't end overfishing.

42
43 The goal of this discussion is to say, well, if 50 percent is
44 the maximum you could do, and that creates, by definition, a
45 50/50 chance that you're not overfishing, and you think that
46 that is too high of a risk, then what is an acceptable risk?

47
48 Instead of actually cutting your catch, what you're doing is

1 saying what risk are we willing to live with that we've actually
2 ended overfishing by setting that ABC and then take a look at
3 that risk level and see how that equates to actual catch, and
4 so, today, the decision is about the risk.

5
6 **MIGUEL ROLON:** Bonnie, this is where it gets complicated, and I
7 told Graciela, since the beginning that this was going to be the
8 mix-up of the whole thing, because we are talking about oranges
9 and apples here.

10
11 If I am following what you say, if you want to get lower on that
12 percentage, that means that your catch will be lower. The catch
13 that will be allowed to you, the ACL will be lower. If you get
14 that too high, it will be like flipping a coin heads or tails,
15 but the consequences could be that the fishery will be closed in
16 the EEZ if you go over the 50 percent, and that's what we're
17 talking about here.

18
19 Usually, if I am a fisherman, I would like to see how much I can
20 get away with from a legal point, how much can I get away with
21 fishing without going overfishing without getting penalized,
22 over penalized, the next year. You keep talking about market
23 driven, market driven, and that's fine, but, guys, the whole
24 thing is the whole thing about the ACL is it doesn't apply to
25 the fishers like this. This is a jackknife approach of
26 something that it works when you have a lot of data. It's a big
27 guess when you don't have that data, and that's what we have
28 here.

29
30 Many of the things, the poor scientists who are working with it
31 are trying to make sense of the whole thing, make it workable,
32 and they are taking into consideration all the fishery issues,
33 all the issues that we have discussed here before, and that's
34 why I wanted you to focus on what they were recommending.

35
36 It doesn't mean that you're going to change your vote on
37 anything, but, if we have a workshop, as they are recommending,
38 maybe these things could be explained a little bit more, and
39 that's why this is -- The word that I used the other day about
40 twenty times discussing it with the fishermen is
41 counterintuitive. When you see this here, it's, okay, I want to
42 get the lower, because I think that I can fish more, but it's
43 the other way around. The more risk you have, the more chances
44 you have of having a fishery close that doesn't need to be
45 closed.

46
47 When you have a P* that is lower than 50, let's say 45, for an
48 argument, in between 40 and 50, and you have a fishery that

1 behaves like that one, then you will be catching more, but if
2 you have a large uncertainty about that fishery, if you don't
3 know that much about the fishery, that curve will be wider, and
4 then your catch will move to zero, and it will be in between
5 zero and where it is right now.

6
7 In essence, let's say that you have a thousand fish and the OFL
8 is 500, because the MSY is 500, half of the thousand fish. Then
9 you are catching 500 for two years, but the risk of going over
10 500, which will be your OFL, is flipping a coin 50/50, and then
11 you catch 501, and, the next year, you will be penalized
12 somehow. If you say, okay, I don't want to catch 500 and,
13 because of uncertainty, I will catch 450, that buffer there will
14 be your safety net for not overfishing, and that's why this is
15 mixed up. It's very difficult to grasp, because, here, we're
16 talking about probability.

17
18 The probability of meteor hitting the Earth will be on that
19 curve somewhere, but we don't care about probability. We care
20 about that meteor hitting our head, and that meteor will be how
21 much you can catch next year or how much you can catch the
22 following years.

23
24 The SSC is asking the council about how much of a risk you are
25 willing to take, based on this discussion, and I believe that
26 you need to know, okay, I will take that risk and what will
27 happen to my fishery and how the rest of the equation will
28 behave, and that's why the SSC has recommended this workshop.
29 By the way, if we have any kind of workshop, it has to be
30 something like this. It cannot be a workshop at the council
31 office with only certain members. It should be something like
32 this, so people can all participate and the lawyers will be
33 happy about it.

34
35 **CARLOS FARCHETTE:** I've got to take a break, and then we'll come
36 right back and I have Julian, Blanchard, Appeldoorn, and myself.
37 We will take a ten-minute break.

38
39 (Whereupon, a brief recess was taken.)

40
41 **CARLOS FARCHETTE:** All right. We are continuing. Hanke, you
42 were pending on a question.

43
44 **MARCOS HANKE:** A question and a position, and I think this
45 discussion has been presented in a way that everything is very
46 clear. Once that is said, when Bonnie just explained to us that
47 these numbers would be established for all the species, for me,
48 it's totally contradictory, because, after that, there was a big

1 explanation of how the variation in the graphic and the numbers
2 will change per species, and this is not something that can be
3 taken lightly, because we have that variation, which was a
4 question that I made on the Appeldoorn presentation, about the
5 life history and the number of fish and market driven and gear
6 restrictions and compliance.

7
8 All of those things are going to have an effect on that graphic,
9 on the outcome, of the shape, of the final graphic that we see
10 there, and it doesn't make any sense to me that we establish
11 something because it is just easy to establish a number. It's
12 unfair to the fishermen, and it's unfair to the science, because
13 it's not a correct science approach, in my opinion. It's much
14 better to treat lobster with their own characteristic and queen
15 snapper with their own characteristic, just as an example.

16
17 **CARLOS FARCHETTE:** I did have Richard pending, but my comment,
18 after the break, was along the same line as Hanke, having a P*
19 across the board when you have something like lobster, which we
20 have the largest carapace length. We all say it's healthy, but
21 yet you have grazers who have a great ecological importance in
22 the reef system, and I don't see how they can all be all the
23 same, but anyway, Richard.

24
25 **RICHARD APPELDOORN:** Two things. What you're looking at here is
26 your tolerance of going overfishing. Overfishing leads you into
27 an overfished situation. If you hit an overfished situation,
28 you have to go into a rebuilding plan, and nobody wants to do
29 that. That's decades of pain.

30
31 That is the real point of having that kind of buffer, is to make
32 sure you don't get into that situation. This is very different
33 from exceeding an ACL, where there is some accountability
34 measure. A rebuilding plan means potentially closing down the
35 fishery or just drastically reducing the catch or some other
36 things that you're going to do to try and get your thing out of
37 the rebuilding program, and so that's one of the reasons the
38 buffer is there.

39
40 This is the risk you are willing to undergo, regardless of the
41 species. Where the species comes in is what comes out of the
42 assessments. Remember that this only applies to Tiers 1 through
43 3, where there are assessments, and the variance of that
44 distribution is where what we know about the uncertainty is
45 coming into play.

46
47 When you talk about how does it play out for individual species,
48 that's where those adjustments are made, and if you have

1 something, as your example was lobster, where the carapace
2 length is really high, you can see lots of large lobsters out
3 there. If you do an assessment, first of all, you should have
4 something where your mean value is way to the right on that
5 graph. Where you're saying MSY is going to be at something
6 higher than what you are fishing now, because, if we're correct
7 in the measures that we have in place now are actually
8 protecting that resource, the MSY is going to be higher,
9 certainly higher than what we're doing, and so we already have,
10 if you will, buffers built into the situation.

11
12 You would be buffering something that you're not going to
13 harvest anyway, because of say the minimum size rule, the
14 minimum carapace length, and so if you're in a situation that
15 you think you are not approaching overfishing, all of this
16 discussion is, to some degree, academic, because the OFL and the
17 ABCs are going to be set all higher than where you're fishing
18 now.

19
20 The third point that I wanted to make was that, from the SEDAR
21 stuff that we've been looking at, I would guess -- I am more
22 optimistic than Bill is that we will have a fair number of
23 species, maybe five per platform within five years, falling
24 within Tier 3, and that number is going to grow.

25
26 As the even newer Virgin Islands data comes online, the number
27 of species eligible for that will grow even more, and so, while
28 there's a lot of work to be done and struggle with the actual
29 applications of these things, I think we're clearly moving into
30 a situation where we will have Tier 3 assessments that produce
31 something that doesn't quite look like that, but operates the
32 same way. From that, we're going to have to make those kinds of
33 assessments. The subject isn't about individual species. The
34 subject is about how much risk do you want to put in there about
35 being wrong and falling into a rebuilding program.

36
37 **CARLOS FARCHETTE:** Roy and then Hanke.

38
39 **ROY CRABTREE:** Richard, so what harm does it do or what
40 consequences are there of not making a decision about this until
41 we actually are at a point where we have some Tier 3 assessments
42 and we can actually look at the PDF and actually evaluate some
43 of these and then we make a decision about risk at that point,
44 because I'm having a difficult time with the concept that we
45 wouldn't choose a different level of risk for one species as
46 opposed to another. That is counterintuitive, to me, and I am
47 not quite grasping why that's the case. Nonetheless, if we're
48 two to three or four years away from this, why do we need to

1 make the decision now?
2
3 **RICHARD APPELDOORN:** Well, that's a good question, and it wasn't
4 my idea. The SSC was suggesting a workshop to discuss this, and
5 so it's not something that has to be done now, but that's all
6 your decision.
7
8 **ROY CRABTREE:** If it doesn't have to be done now, I would
9 suggest that we move on to things that do need to be done now.
10
11 **RICHARD APPELDOORN:** I would just like to make it clear about
12 what's actually being talked about. I think it was Miguel that
13 made the point. If you stay with 50/50, which you obviously
14 can't go beyond that, because of the law, you are putting
15 yourself in the situation where half the time you in fact are
16 confident that you're going to be in an overfishing situation,
17 and that seems to be counter to what the law is trying to do,
18 which is to prevent overfishing.
19
20 **CARLOS FARCHETTE:** Hanke.
21
22 **MARCOS HANKE:** Roy just touched on the points that I was going
23 to touch on.
24
25 **CARLOS FARCHETTE:** Before I go any further, Ricardo is our new
26 council member sitting around the table, and he replaced Miguel
27 Garcia, who has gone on to bigger and better things. I believe
28 he might have hit the lotto. No, he just went to another job,
29 and so Ricardo will be our decision maker for DNER. I have a
30 quick question here.
31
32 **MIGUEL ROLON:** For the record, the letter appointing him has
33 been sent and received by the Regional Administrator, and so you
34 are legal.
35
36 **CARLOS FARCHETTE:** Okay. I noticed that I don't see MSY. Is it
37 MSY and OFL, or MSY is equal to OFL?
38
39 **RICHARD APPELDOORN:** In this situation, the preferred
40 application of the control rules would say that OFL is -- OFLs
41 are an approximation to MSY. How that might differ would be, if
42 we didn't have a good assessment, we might have to come up with
43 some proxies, but the idea would be that we get a distribution.
44 The mean of that is our best guess at MSY or OFL, and that ABC
45 is going to fall out of this P* value and any additional -- The
46 width of the variance, which is the uncertainty, and there might
47 be some play in that in terms of susceptibility.
48

1 A goliath grouper is going to be more susceptible than a lane
2 snapper, and so there might be an uncertainty adjustment for
3 that kind of thing, but what we're hoping we would just do is we
4 get the OFL and we have the variance and the ABC falls out from
5 the application of the P*.

6
7 **CARLOS FARCHETTE:** But this has nothing to do with the ACLs,
8 right? Okay. Perfect. Because ACLs -- We don't overfish,
9 because, if we go over the ACL, we just get accountability
10 measures, but there is still a buffer between that, and so we're
11 not really overfishing, but it's just --

12
13 **RICHARD APPELDOORN:** Well, if they're set correctly, absolutely.
14 If this is set correctly, the ACLs can be -- If we have a good
15 assessment, you can set the ACL at the ABC, which is --

16
17 **CARLOS FARCHETTE:** Roy.

18
19 **ROY CRABTREE:** Just to point out that it does affect the ACLs
20 though, because the ACLs can't be higher than the ABC. All of
21 this is intermeshed.

22
23 **CARLOS FARCHETTE:** Right. Okay. I've got it. All right. Have
24 we finished beating this to death for now? We're going to move
25 forward to -- Is it island-based or SEDAR?

26
27 **GRACIELA GARCIA-MOLINER:** You have two recommendations that the
28 SSC made, and so those were the two slides that Richard has put
29 up again, and then we will move into SEDAR 46.

30
31 **RICHARD APPELDOORN:** There were two recommendations for
32 workshops. One is for the SSC and the other is directed at the
33 council. The council one is a recommendation to further discuss
34 exactly what you were talking about, that buffer, that P* thing
35 that was on the graph, and I would assume such a workshop would
36 -- Our view is that such a workshop would bring in experts from
37 some of the other councils who have struggled with this and what
38 was their rationales and how is it working and how is it
39 affecting their catches, if that's a question for you, so that
40 everybody is clear about what's being discussed and how it's
41 going to be used.

42
43 The second workshop is a recommendation for the SSC, and so our
44 job is to look at scientific uncertainty, and we want to see how
45 we can use information on life history and ecological value to
46 look at the uncertainty and how this might play into the
47 uncertainty and the impact, because there is a larger picture
48 here.

1
2 There is what we're catching, and then there is the role of
3 these fishes in supporting the environment that, in the end,
4 supports the growth of all the fisheries, and so species that
5 are important for grazing seagrass, for instance, are going to
6 have an impact on the quality of that seagrass as a nursery
7 habitat for other species, and so we want to make sure that all
8 of these functions are taken into consideration, such that our
9 systems as a whole remain healthy and productive.

10
11 We have individual species, and I mentioned that goliath grouper
12 is kind of the poster child of something big, large, old. We're
13 going to be more cautious with something like that, but how much
14 caution should we be talking about?

15
16 What kind of information do we have available? How should we
17 use it? Can we set some guidelines on that? That's what the
18 SSC would like to have a workshop on, so we're not being
19 capricious or arbitrary when we are looking at uncertainty based
20 on these factors that we have some guidelines that say this is
21 how we can use things, or do we even have to worry about them at
22 all? Have we captured all of that uncertainty in the models,
23 for example?

24
25 That's where we're uncertain, if you will, and so we would like
26 to have some guidance on that and, again, this would entail not
27 just the experts in the region about these species, but some of
28 the other councils or SSCs that have dealt with these processes
29 and how have they done it and has it worked or not. Some of
30 them have built elaborate systems that they ended up not liking,
31 and so we don't want to repeat those same mistakes, and so what
32 can we learn from everybody?

33
34 **CARLOS FARCHETTE:** Miguel.

35
36 **MIGUEL ROLON:** To the first one, how many people are you talking
37 about? The SSC, ten people, plus --

38
39 **RICHARD APPELDOORN:** The SSC workshop or the council workshop?

40
41 **MIGUEL ROLON:** The first one, the SSC workshop. Would it be ten
42 people plus five? If we are going to do something like this, it
43 would be nice to bring somebody from the Pacific, where they
44 have the same type of setup, in terms of the islands and
45 fisheries and all of that, but I probably will rest on your
46 recommendation as to whom should be at that workshop and when
47 and where, and this workshop is for the scientists.

48

1 **RICHARD APPELDOORN:** Yes.

2
3 **MIGUEL ROLON:** Then the second workshop, I believe that, if the
4 council approves that, this second workshop should include not
5 only the council members, but the DAPs and other people,
6 because, similar to what we did in March of this year, we had
7 the three DAPs, we had the SSC, and we had the council.

8
9 For this workshop to work, we should have those people involved,
10 because, sooner or later, they will be asking these kinds of
11 questions and they will be asked to answer these questions, and
12 so, if we have a workshop like that, I believe that we -- The
13 staff has to really sit down and work it together with the
14 Chair, but, from here, we need to have some direction from the
15 council. Number one, do you want to have the workshop? Number
16 two is the setup of the workshop, when and where, and what is
17 the timeline.

18
19 For the SSC, we have ten people and maybe five more experts. We
20 can bring a hundred experts from the federal government, because
21 I don't have to pay for it, but, with the other guys, we have to
22 be careful, and I know that, if the council approves this, then
23 the Chair of the SSC, Graciela, Carlos, and I will put something
24 together to present to you not for the next time, but, whenever
25 it is appropriate, we will have the workshop described to the
26 councils.

27
28 **RICHARD APPELDOORN:** Right and so, in terms of the workshop for
29 the SSC, we actually didn't discuss in any detail what the
30 makeup of that would be, in addition to the SSC members, but
31 certainly we were thinking of representatives from the other
32 SSCs and probably other individual scientists that have dealt
33 with these matters, maybe from an NGO that might have been
34 advising some of the other councils. The MRAG people have done
35 a lot of work in this area, but, like I said, we hadn't looked
36 at the specific makeup of that committee, but you're probably
37 talking ten plus five plus three or something like that.

38
39 In terms of timing, this would be when we're -- It needs to be
40 done before we're actually making decisions in the application
41 of the control rule, and so it doesn't need to be done
42 immediately, but, as we are looking towards accepting and then
43 applying the control rule, that's when we would want to have the
44 meeting, and so I would think it would not be before -- We have
45 other things that we're doing in December, and so I would think
46 it would be after that, but how much after, that depends on how
47 far we move down the road, how rapidly.

48

1 **MIGUEL ROLON:** Let's say, for the sake of argument, because we
2 haven't adopted anything, we would be talking to have an SSC
3 workshop in the first half of 2017, and so I need to hear from
4 the council members whether this is a good idea or not.

5

6 **CARLOS FARCHETTE:** Blanchard.

7

8 **TONY BLANCHARD:** I've just got a question, and I've got a
9 statement. Like Dr. Crabtree brought up a while ago, if we
10 really don't have to address this right now, why don't we just
11 sit back and table it for now, until we get a couple of the
12 better data coming in, and then we can decide from there where
13 we're going to go. If we don't have to take it on now, we just
14 sit back and let the information come in, and then we'll deal
15 with it.

16

17 **MIGUEL ROLON:** Yes, but the idea is to be prepared for that time
18 where you -- If you do nothing, you will come back here in the
19 future to discuss this and it will be exactly the same thing.
20 We will get all tangled up in 50 percent and 30 percent and 10
21 percent and nothing will happen.

22

23 This way, at least with this recommendation, all of you will
24 have a chance to take a look at all of this without making a
25 decision. By the way, in a workshop, you don't vote for
26 anything, just to make sure.

27

28 You will have a chance, between here and 2017 somewhere, to get
29 better information. The data that you're talking about probably
30 will be available, and you will be able to have better tools,
31 better ammunition, to make up your mind and come to a decision
32 whenever it's necessary. That's the whole idea behind it.

33

34 **CARLOS FARCHETTE:** Roy.

35

36 **ROY CRABTREE:** I think having the SSC have a workshop like that
37 is fine, if they want to work on the science end, but, for the
38 council, one, it's not clear to me how a council workshop is
39 different than a council meeting, but I am not sure what we're
40 going to get until someone has some information to put in front
41 of us so we can have some basis to decide some of these things,
42 and it seems to me like we're -- I am not hearing anyone from
43 anything that they have that sort of information yet, and so I'm
44 not sure that I'm ready to decide on the council workshop or the
45 council meeting, but I think having the SSC have a meeting next
46 year to talk about some of these things might be a good idea.

47

48 **CARLOS FARCHETTE:** Hanke and Ruth.

1
2 **MARCOS HANKE:** Following Roy's way of thinking, I think the SSC
3 work to improve the discussion and to start to get ready for
4 when it's really meaningful is important, but we shouldn't
5 exclude either the DAP representatives or the council from being
6 there to listen and to also get educated, if you're going to
7 make that effort. My recommendation is that, if you're going to
8 do that exercise, just give the opportunity for us and/or the
9 DAP representatives to be there, and not participating, but just
10 listening and getting educated.

11
12 **CARLOS FARCHETTE:** Ruth.

13
14 **RUTH GOMEZ:** I agree with Marcos. There is one point that I
15 disagree with, though. I believe that at least the DAP members,
16 because they really are the true experts, and they need to be
17 involved. They don't need to just sit and listen. They need to
18 be involved. The council members are a different story. I
19 agree with Roy.

20
21 I am not quite sure what we're doing here, and then you're going
22 to ask me to take a vote, or at least make a vote, on something
23 that I am not sure of the process, how we got to it, or what
24 we're doing. There is uncertainty, and that just keeps ringing
25 in my head. When it comes to the council workshop, I'm not
26 quite sure. It's like Roy said.

27
28 Bring something to the table, something solid, with something
29 that you can substantiate with solid data or whatever, and then
30 I can feel comfortable doing that, but if you ask me to make a
31 decision on something of where we are right now, if two years
32 down the road we are still where we are, I cannot do that, but,
33 to get to that, yes, I do agree that the SSC and the DAP and
34 whoever they choose should get together and at least have active
35 involvement and interaction with the DAP members, because these
36 gentlemen know the fishery, and we have all established and we
37 continue to say the same thing over and over again, that the
38 Virgin Islands fishery, and I can't speak for Puerto Rico, and
39 they can speak for themselves, but it's a very unique fishery.

40
41 It does not fit in any of your applications you have in the Gulf
42 or any of the other councils, and so, be that, they need to be
43 involved when it comes to the SSC and whatever will come out of
44 that committee as far as a recommendation to bring to the
45 council.

46
47 **CARLOS FARCHETTE:** Miguel.

48

1 **MIGUEL ROLON:** Everything that has been said is all good, but
2 you have to put some order into things. In the case of the
3 first part, that will be just looking at technical issues
4 regarding to all of this. You can be there, and, actually, all
5 of you can be in Go to Meeting and you will have everything,
6 sitting in your home, and you will see the whole thing.

7
8 The second one is really what is addressing Ruth's concern. The
9 DAPs should be included, and the council members too. If you
10 want to come, fine. If you don't come, that's fine too, but
11 this first part is high-tech. Around the table, there are a
12 couple of people here that understand all of this back-and-
13 forth, but there are very few of them.

14
15 In order to have this, you have to have a better PhD than the
16 one that Carlos and I have, and so I believe that the second
17 one, the SSC recommendation to have this group, hear this
18 presentation is the way to go. As I said, you don't have to
19 make a decision on everything, but you will be able to have more
20 information received by you, and, at that workshop, at least the
21 way I see it, I don't want to see more formulas and more
22 percentages without any meaning to the local fisheries.

23
24 I hope that we have one fish, one lobster, one whatever, and we
25 follow through the whole system, since the time that we have the
26 percentage of risk all the way down to what happened to that
27 fishery, all the way to what regulations will come into play,
28 and that workshop will be able to give you a better idea of what
29 this is all about.

30
31 We did some similar meetings when we have the meeting in March
32 with the DAP and the SSC and the council members met, and it was
33 productive, and so it's up to you, really. My only concern is
34 the time and the money, because we can set a workshop here and a
35 workshop there, but, if nobody is willing to pay for it, it
36 doesn't make any sense. I have money for the SSC next year, and
37 we have money for the second recommendation, and I believe that
38 we should follow the SSC workshop. Once they have all this
39 information, then they can bring it to the rest of the group, in
40 an orientation type of workshop.

41
42 As I said, you don't need any of this for making a decision if
43 you want to just throw a dart and, voila, this is our risk of
44 percentage and all that, but I believe that, in all honesty, we
45 don't have to rush into anything and you should have the chance
46 to make sure that you understand the whole process and how that
47 process will affect you as a fishery and you as a government
48 official and so forth.

1
2 The last thing is that we have to be mindful of not stopping the
3 island-based FMPs, the way we are doing it, and so we have to
4 run this parallel to the island-based FMPs, and some of the
5 issues in the island-based FMPs have to do with the ABC control
6 rule, and so I will ask Bill how this could affect our schedule.

7
8 **BILL ARNOLD:** As we discussed at the last council meeting, as we
9 develop these higher-level assessments, we still -- We don't
10 want to wait on those assessments and our ability to conduct
11 them before we complete our island-based fishery management
12 plans, and so Action 3 in those island-based fishery management
13 plans is developing reference points and ultimately developing
14 our ACLs that are required by Congress.

15
16 We have ACLs in place. One alternative could be just to
17 continue with those ACLs. The problem with that is we are
18 adding new species for management and we're taking some species
19 out, and so we would have to address those species and set ACLs
20 for them under any circumstance. As it stands now, of the ABC
21 control rule tiers that were presented, the only one that we are
22 ready to implement at the present time is Tier 4, which is using
23 average catch.

24
25 The first question with average catch is what years of catch are
26 you going to use to develop those averages, and there is a lot
27 more questions that go along with that. When we set these ACLs
28 back in the 2010 and 2011 amendments, we didn't just use
29 averages. For Puerto Rico lobster, for example, we used
30 medians. For some, there were various reductions used to
31 account for uncertainty and there were different year sequences
32 used, depending upon which species we were talking about, et
33 cetera, et cetera. There were a lot of factors that went into
34 that.

35
36 If we're going to keep moving with our island-based fishery
37 management plans, and if we accept that to keep moving we're
38 going to have to use average catch, then the most immediate task
39 that the SSC needs to address is determining what that MSY
40 proxy/OFL is, based on what average catch we use, and then
41 applying the ABC control rule to convert that MSY proxy/OFL into
42 an ABC that can be provided to the council, so the council can
43 then decide what level of management uncertainty they need to
44 apply and, from that, to develop their annual catch limit.

45
46 While I am certainly supportive of these workshops, a more
47 immediate concern is to have the SSC meet and address these
48 issues, and that's something that I would like to see done

1 between now and the December meeting, so we could come back at
2 that December meeting with guidance from the SSC, and maybe not
3 a complete set of ACLs or even ABCs, but at least guidance as to
4 how they intend to process the data to get to those ABCs.

5
6 **CARLOS FARCHETTE:** I've got Julian.

7
8 **JULIAN MAGRAS:** Miguel, I disagree with the statement that you
9 made that the DAPs should only be involved when the council is
10 actually meeting, because it was earlier stated for the record
11 by Dr. Richard Appeldoorn -- He clearly made a statement that,
12 moving forward with any of these decisions, that he would love
13 to have or like to have the DAP chairmen's involvement from the
14 beginning and not for us to be coming in on the tail-end when we
15 might not have a PhD on paper, but we have the PhD in fishing.

16
17 The scientists in the room have the PhD on paper, but we know
18 what actually is going on in our fishery, and, like stated
19 earlier by Director Gomez, it's always been said that the
20 fishery here in the Caribbean, the U.S. Virgin Islands and
21 Puerto Rico, is unique. You cannot take our fishery and fit it
22 into any of the other councils. It does not work. It does not
23 work in none of the models, because it's a totally different
24 type of fishery.

25
26 I am here as the DAP Chair for St. Thomas/St. John and asking
27 the council to put on the record, which Mr. Blanchard did
28 earlier, and Ms. Gomez did, to have our involvement from the
29 beginning instead of us going backwards.

30
31 At the last council meeting, we stated that, when we were doing
32 goals and objectives, that the DAPs would have met with the
33 groups before this council meeting to discuss the goals and
34 objectives, so we would have our opinions to put forward, and
35 those DAP panels did not meet, and so here it is that you have
36 three chairmen sitting at this table, and we are here fighting
37 for each of our fisheries, and it seems like we are just sitting
38 here as, okay, well, we have their involvement and let's move
39 forward with our agenda, and I don't think that's right. If
40 you're going to move forward with our input, then we must be
41 involved in the entire process.

42
43 **MIGUEL ROLON:** Julian, what you're suggesting is the three
44 chairs -- The second part is with all the DAPs, but what you're
45 suggesting is that the three chairs be present at the SSC
46 meetings? Is that what you're saying, because that can be done.

47
48 **JULIAN MAGRAS:** Yes, that's what I'm saying, that we be present.

1 It was also recommended by the Chair of the SSC, Dr. Richard
2 Appeldoorn.

3
4 **CARLOS FARCHETTE:** Okay. I have a question on Bill's comment
5 with average catch. Go ahead.

6
7 **RICHARD APPELDOORN:** My earlier recommendation regarding the DAP
8 was for actually setting the ACLs, but I have no problem with
9 accepting his recommendation that they be part of this
10 recommended workshop, just for the record.

11
12 **CARLOS FARCHETTE:** I wanted a little clarification on what Bill
13 said about using average catch, because the average catch now,
14 if we look at them, they would be lower than the ACL, or are we
15 going to start all over again from before we had ACLs, to
16 determine an average catch?

17
18 **BILL ARNOLD:** That's up to the SSC. That's not my decision to
19 make, but any sequence of years that the SSC, and Richard can
20 correct me on this if he wishes. He is the Chair of the SSC.
21 I'm not even on the SSC, but I would assume that any sequence of
22 years for which they have data could be identified by the SSC as
23 the most appropriate sequence of years to use to set those
24 averages, and I don't want to bias the conversation by stating
25 any particular year sequence, but it seems to me that everything
26 is on the table.

27
28 **CARLOS FARCHETTE:** Graciela.

29
30 **GRACIELA GARCIA-MOLINER:** The thing is that you asked the SSC to
31 look at this ABC control rule and SEDAR 46, which is still on
32 the table, and so there are many things going on at the same
33 time. Actions 1, 2, and 3, which are the ones that -- The SSC
34 pretty much dealt with Action 1. They still need to look at the
35 stock complexes and decide how they're going to look at that
36 information, if they're going to use indicator species or not,
37 and then come into the realm of setting ABC, which is what
38 they're going to give the council for you to set the ACL.

39
40 Keeping things as they are is one of the alternatives. Moving
41 forward and changing the way things are done is another
42 alternative. Using some of the information that we have now
43 that might generate some additional information for OFL, if we
44 are at that stage for any one of the species, might be on the
45 table.

46
47 One of the things that we have in the roadmap is that you're
48 going to look to see that we have the SSC discussing Actions 1,

1 2, and 3 in this past meeting, but it just took way too much
2 time, and it was good, because it was excellent discussion, and
3 it not only deals with what we have now, but it really looks
4 into the future of what we might have available or what we will
5 have available in the future. Now, we are down to having the
6 SSC meet again sometime before the end of the year to look at
7 Actions 1 through 3, and that's one more meeting that they have
8 to have.

9
10 **CARLOS FARCHETTE:** Roy.

11
12 **ROY CRABTREE:** Bill, remind me, or Graciela, when we did this
13 last time in the ACL amendment, we actually had an action in the
14 amendment that chose the year sequence that was then used, and
15 so the council chose the year sequence in the amendment, and the
16 SSC then calculated their ABC off of the landings for that year
17 sequence, I think, and then we had a control rule in there that
18 ABC equals some percentage of average landings, and that was the
19 action in there.

20
21 I think that's how we did it, and so I guess you could change
22 the years, if that's what you wanted to do in this amendment.
23 The SSC is going to be part of that conversation, and they may
24 well have some strong opinions about it, but, at least last
25 time, we did it as a council action, I think.

26
27 **CARLOS FARCHETTE:** Bill.

28
29 **BILL ARNOLD:** As with everything, we did it both ways. For the
30 2010 species, snapper grouper, parrotfish, and queen conch --
31 Not queen conch, because the ABC was basically provided
32 outright, but, for certainly snappers and groupers, really the -
33 - If I remember correctly, and I think I do, the SSC picked
34 those specific year sequences. For the 2011 species, we had
35 different year sequences as alternatives and the council
36 identified preferred year sequence alternatives that ultimately
37 were selected. They go out to public hearings, et cetera, et
38 cetera.

39
40 Actually, Roy brings up an important point. From a management
41 point of view, from a NEPA point of view, all we're doing now is
42 developing alternative approaches. Nobody is asking that
43 preferred alternatives be identified or that, beyond that, final
44 decisions be made. We're really just trying to develop a suite
45 of alternatives that can be considered by the council in
46 developing each of the actions that will be contained in each of
47 these fishery management plans.

48

1 **CARLOS FARCHETTE:** Graciela.
2
3 **GRACIELA GARCIA-MOLINER:** A follow-up. The SSC will be
4 considering, as will the Science Center and the Regional Office,
5 changes that have taken place after the 2010 and 2011 ACLs,
6 which includes, among other things, changes in regulations and
7 changes in the way that the data are collected and the type and
8 amount of data that have been collected.
9
10 All of that information needs to be brought to the SSC, which
11 then might recommend to the council to keep the same year
12 sequence that we have looked at now or how we are going to deal
13 with the setting of the ACLs in 2010 and 2011 and the amount of
14 landings that are coming in because of the ACLs in addition to
15 the overages that have happened over that period of time when
16 there have been overages for at least six or seven species over
17 that period of time. These are issues that the SSC will be
18 looking at at the next SSC meeting.
19
20 **CARLOS FARCHETTE:** Okay. Miguel.
21
22 **MIGUEL ROLON:** Do you want to table this until we get into the
23 things that we need to do more immediate, like what we're
24 discussing now in the next meeting of the SSC, or do you want to
25 proceed and decide now what we should do with the recommendation
26 from the SSC?
27
28 **CARLOS FARCHETTE:** Bill.
29
30 **BILL ARNOLD:** We can't complete the reference point process
31 without an ABC control rule. Bonnie would argue that you can't
32 establish an ABC control rule until you have set your acceptable
33 level of risk, and so, from that point of view, and correct me
34 if I'm wrong, Bonnie, you would have to do that, even though
35 that acceptable level of risk really does not play into Tier 4
36 application.
37
38 It only plays into Tier 1 through 3 application, and we will not
39 be using -- It appears that we will not be using Tiers 1 through
40 3 in the ABC control rule to develop our next cycle of OFLs and
41 ABCs and ACLs, and so you've got to solve that little dilemma
42 right there, really, before we can move forward. That's the way
43 I'm seeing it, and maybe that's not correct, but that seems to
44 be the way I'm seeing things.
45
46 **CARLOS FARCHETTE:** Roy.
47
48 **ROY CRABTREE:** I think the key is, for the purpose of these

1 amendments, we're using Tier 4, and so I don't think we do need
2 control rules for Tier 3, 2, and 1. Those are down the road.
3 This is nothing we haven't done before. We have ABCs and all
4 these things in place now, and we didn't go through all of these
5 complications last time around either.

6
7 It seems, to me, what we need is we need what species are we
8 going to manage, what time period are we going to use for
9 establishing these things, and then we're going to have to come
10 up with some notion of what are the buffers we're going to use
11 on the average catch landings.

12
13 **CARLOS FARCHETTE:** Bill.

14
15 **BILL ARNOLD:** A possibility would be that you establish an
16 interim ABC control rule that is only the Tier 4 component of
17 the proposed ABC control rule and that you don't fully flesh out
18 the Tier 1 through 4 ABC control rule until farther down the
19 line, because you've got time on that.

20
21 I remind, as I do at practically every one of these meetings,
22 that we have our seven-pound ACL for wrasses. We have species
23 we're bringing into management that don't have ACLs, and we've
24 got three groups, angelfish, squirrelfish, and one other one,
25 for which they've been added to the reporting form. Every year,
26 we say we're not going to implement any management, even though
27 the landings are way above the established ACL, and so the point
28 is we need to -- It's been five or six years now, and with data
29 that's almost a decade old that we're operating.

30
31 The data is not really important, but the fact is that,
32 periodically at least, reference points should be revisited and
33 reconsidered. I would say it's probably time to do that. The
34 council seems to be intending to do that within their FMPs, and
35 so, even in an interim sense, I think it would be advisable to
36 move forward with that.

37
38 **CARLOS FARCHETTE:** I've got Richard and then Roy.

39
40 **RICHARD APPELDOORN:** Bill is right that it's going to be a
41 complicated system, because of the factors that have been
42 affecting the data, in terms of it being market driven or be it
43 that it's new or be it that it's been affected by past ACL
44 levels that have contained fishing.

45
46 All of this has to be taken into consideration, in terms of what
47 we're doing. I am a lot more optimistic than Bill about having
48 Tier 3 assessments available soon. We just did six species, and

1 I think some of those are going to come through eventually.
2 We're not quite there yet, and so I think we are moving into a
3 Tier 3 scenario, and that could be fairly quickly.

4
5 The rules that we have in place, or that we are recommending,
6 are designed to be the things that we use. That is what get
7 fixed. There is nothing that I am aware of, and please correct
8 me if I'm wrong, of reassessing species when the need arises,
9 and normally this is done through the SEDAR process.

10
11 We did six species or six species groups last time. If that's a
12 pace we could actually maintain, and that's not clear yet, but
13 if that's a pace we can maintain, we could actually start
14 running through a lot of species fairly quickly. You wouldn't
15 want to hold up the plans for that to happen, and so the species
16 might go into Tier 4, but, in the next SEDAR, it may be bumped
17 up to Tier 3. That's just as fast as the SEDAR process can turn
18 things over for us, is how quickly we move in that direction.

19
20 I don't think the control rule debate is holding up anything,
21 because it's designed to have that flexibility, including
22 whether you guys set a P* value or not, because I said, if
23 there's not a P* value there, our control rule says we're going
24 to establish some scalar to at least allow us to use the
25 variance structure to set the ABC, and so I think we can move
26 forward.

27
28 It is going to take time, however, to actually generate new ABCs
29 for all the species, because of the problems with the new data.
30 We're going to have to go back and revisit all the data for all
31 the species and decide what's the best time series to use and
32 how we can use it within the guidelines of the control rule.
33 That is not going to be trivial. If you wanted a default thing,
34 it would be you carry everything over and, as soon as we can
35 make the new assessments, they get incorporated.

36
37 **CARLOS FARCHETTE:** Roy.

38
39 **ROY CRABTREE:** As I understand it, for the purposes of the
40 island-based amendment, we're not going to have any Tier 3 ABCs.

41
42 **RICHARD APPELDOORN:** I am not going to commit to that, no. I
43 think that we might, depending on what your timetable for final
44 passage is.

45
46 **ROY CRABTREE:** Well, we have a roadmap, right, that we're going
47 to look at, and we can look at the timetable of it and then we
48 can figure that out, but, the way I have thought of this

1 amendment, is we're going to put it in place and it's going to
2 be based on average landings and then, as these assessments come
3 in, we will make amendments and refine things, but, if we keep
4 waiting and waiting and churning all of this, I am worried that
5 we're just never going to get done.

6
7 I think we have control rules now. We have time periods now.
8 All of that was done in the ACL amendments and so we could, in
9 theory, come in and do the island-based amendment, using the
10 same timelines and the same control rules and the status quo,
11 and just update them all with the new landings.

12
13 Now, Bill is right that there may be a reason to change some of
14 those kinds of things, but I think if we start trying to pull
15 all the Tier 3 decisions into that the timeline of this whole
16 thing becomes, one, very uncertain, because we don't even know
17 when we might get some of the Tier 3, and so we really need to
18 decide whether that's going to be part of this or not, and, if
19 it's not, then let's focus on the island-based amendments and
20 get them done.

21
22 **CARLOS FARCHETTE:** Bonnie.

23
24 **BONNIE PONWITH:** Thank you, Mr. Chairman. The challenge is that
25 we did finish the last stock assessment, and we're still working
26 very closely with the SSC to address questions that they had on
27 the results of that assessment, but, if we get to the point
28 where those questions are satisfied, then our ability to use the
29 results of those assessments depends on having the ABC control
30 rule.

31
32 In other words, the structure of the current ABC control rule
33 can't accommodate the results of the most recent assessment,
34 which is -- So we have three things that are happening,
35 finalizing the results of the most recent stock assessment, the
36 ABC control rule, and trying to get the island-based done, and
37 we need to synchronize them, so that we are capitalizing on the
38 gains that we made through this most recent round of stock
39 assessments.

40
41 **CARLOS FARCHETTE:** Roy.

42
43 **ROY CRABTREE:** I get that, and, when we get one of these
44 assessments that is ready to go, we're going to have to amend
45 the plan in order to base any action on the new stock
46 assessment. When we amend the plan, we can implement the
47 control rules that we need then, it seems to me.

1 **CARLOS FARCHETTE:** Rich.
2
3 **RICHARD APPELDOORN:** I am willing to bet that, and this will be
4 really more of a decision for Bonnie, because she will see the
5 recommendations and say, okay, how long would it take us to meet
6 that, but I am willing to bet that we will have assessments for
7 some species before you have a plan.
8
9 **CARLOS FARCHETTE:** Bill.
10
11 **BILL ARNOLD:** I talked about this at the last meeting. What
12 concerns me is we develop, based upon a certain number of
13 species with new assessments, and then some that aren't, and
14 it's looking like about a two-year process.
15
16 We get those and we incorporate them and we get them into our
17 amendment and we discuss them and we take them out for public
18 hearings and, while we're doing that, we get another round of
19 SEDAR and another group of species that have been assessed, and
20 now we've got new reference points for those species. We have
21 to plow those in and rewrite the fishery management plans and
22 take them back out to public hearings, creating a six-month or a
23 year delay. Now, instead of 2018, and I'm just making that
24 number up, now we're talking about 2019, and we rewrite and we
25 move forward, and this iterative process keeps going.
26
27 There are over 120 species by island combinations. We have done
28 six in SEDAR 46 species by island combinations. You've got
29 triggerfish in Puerto Rico, lobster in St. Thomas, lobster in
30 St. Croix, parrotfish in St. Croix, and so six of those. These
31 are not complexes. These are individual species that are being
32 assessed. You can, I hope, appreciate my concern that we will
33 iterate ourselves into the next ten or twenty years. Then, at
34 that point, then we're going to have to come back to the species
35 that were originally assessed and start over on them, because
36 their assessments are going to be out of date.
37
38 Now, maybe this is all just totally my paranoia, but that's my
39 concern, and I think that that concern -- I respectfully would
40 request that that concern be properly addressed, so we get some
41 idea of if and when we're actually going to get these new
42 fishery management plans in place, and it's my understanding,
43 again, that we've got a consensus that these new fishery
44 management plans need to be developed and put into place.
45
46 **CARLOS FARCHETTE:** Miguel.
47
48 **MIGUEL ROLON:** Remember the fact that you're paranoid, it

1 doesn't mean that nobody is following you. I believe, Mr.
2 Chairman, we are close to lunch. Actually, we're twenty-five
3 minutes into it. We table this until maybe tomorrow. When we
4 come back, we decide how you want to proceed.

5
6 When we see the roadmap, probably you will be able to have a
7 clear picture as to where we're going or where we're supposed to
8 go. Right now, if we do nothing, as Graciela mentioned, we go
9 back to where we are now, which is the control rules that we
10 have, the consensus that we had before, and then we move forward
11 with that. We will have the ACLs and everything that we have,
12 and I believe that not many people that I have met are very
13 happy with the ACLs nowadays, especially if you are a fisherman,
14 and so can we do that?

15
16 Can we table it, but please be ready to make a decision when we
17 come back as to how we should proceed, and also do not take
18 lightly the recommendation by the SSC. They spent the whole
19 last week talking about this, and there is a lot of intricacies
20 about discussing issues related to the ABC that you have to
21 address, and so it seems, to me, that you are talking about
22 running the two processes parallel to each other. We will
23 continue developing the plans, and, if we have better rationale
24 to change the control rules between here and 2020, so be it,
25 but, this way, we will be able to continue forward with the
26 island-based FMPs.

27
28 **CARLOS FARCHETTE:** Okay. What we will do is we will break. I
29 know that we kept hearing about all of these PhDs knocking
30 about, and Miguel mentioned about my PhD, but I want to clarify
31 that mine is a public high school diploma, and so we will break
32 for lunch. It's 12:30. We will come back at 1:30, give or take
33 five.

34
35 (Whereupon, the meeting recessed for lunch on August 23, 2016.)

36
37 - - -

38
39 August 23, 2016

40
41 TUESDAY AFTERNOON SESSION

42
43 - - -

44
45 The Caribbean Fishery Management Council reconvened at the
46 Vanderbilt Hotel, San Juan, Puerto Rico, Tuesday afternoon,
47 August 23, 2016, and was called to order by Chairman Carlos
48 Farchette.

1
2 **CARLOS FARCHETTE:** Okay. We're back online here. What we're
3 going to do is, when Richard completes his presentations, and
4 Richard has been a very busy man here today, we're going to go
5 and change the agenda and go to the roadmap, so we can see how
6 we're moving with this, and then we will touch on the island-
7 based fishery management plans, so we can move forward with
8 that, because the ABC control rules have flexibility, where we
9 can always deal with that when the Science Center comes up with
10 a better understanding of what we're looking for. Richard.

11
12 **DISCUSSION OF SEDAR 46**
13

14 **RICHARD APPELDOORN:** Okay. Part 2. This SEDAR was different
15 from all the other SEDARs we have had before, because this one
16 is really trying to do several things at one time, and, most
17 importantly, it's trying to upgrade our assessments, or at least
18 assess our ability to upgrade our assessments, to a Tier 3
19 scenario.

20
21 It came in two parts. The first deals with a management
22 strategy evaluation, or MSE, and this is assessing the
23 performance of the model. It's a theoretical performance of the
24 models, and I have to stress the word "theoretical". It's
25 relative to performance criteria, and I will go through what
26 those were.

27
28 Then the second part was to apply those models as a test of the
29 data-limited toolkit, and so how do the models perform across
30 different datasets, and those datasets were chosen to offer a
31 range.

32
33 Just as a hypothetical look at what the output might look like
34 from these models -- This is a probability density function of
35 catch for each model, where the catch at the median value would
36 equal OFL. Then, if you have multiple models that are producing
37 answers, and this is an extreme situation, you would have to
38 have criteria to decide which of those you're going to go with
39 or, if they are equally meeting criteria, those performance
40 criteria, equally meeting whatever standards you're putting in,
41 you could combine them and use the combined model.

42
43 In the combined situation here, here are two models. This is
44 supposed to be what they look like combined, and I am not sure
45 whether that's exactly the case or not, but here is a line that
46 is supposed to represent the median. It doesn't look like the
47 median to me either, but they are not my figures, but that would
48 be where your catch recommendation would be. That would be your

1 OFL, and this would be the distribution then that you would
2 apply the further reductions to get to ABC, in the lines of what
3 we were talking about earlier this morning. Remember this is
4 just hypothetical.

5
6 The species that were thrown into this were two for each island,
7 and so six total. They're the ones in yellow and pictured at
8 the bottom. They were selected by the SEDAR process and, as I
9 said, they were designed to present a range of data quality and
10 quantity to the models, because we wanted to see how the models
11 would perform, and so we weren't trying to get our best
12 scenario. We were trying to find out a range of scenarios that
13 this might help us in.

14
15 Let's first talk about the management strategy evaluation,
16 because that's where the really good news is. The evaluation is
17 designed to evaluate model performance. It's not the assessment
18 itself, but it's really trying to tell you which models you
19 could use to conduct the assessment with, and so it incorporates
20 the best information, and that's information that was previously
21 vetted by the various data workgroups, and this is information
22 on life history, catch per unit effort, and any other
23 information that goes into the models was reviewed at this time,
24 what is our best estimates of those, and what is our expected
25 range of variability. This is our best guess, but it could be
26 between here and here, and so we wanted to make sure that here
27 and here was incorporated for any parameters that were going
28 into this, and so what's the confidence in your data?

29
30 Those parameters are then used to simulate a known population,
31 and so this is all simulation, and that simulated population is
32 what is used to evaluate the model performance. Now, in doing
33 this, you are incorporating all the variability that you thought
34 existed in the system, and so you're checking to see how robust
35 the models are relative to that variability. As I said, they're
36 designed to evaluate model performance against specific
37 performance criteria.

38
39 Some of these, most of these, were selected at the SEDAR data
40 workshop or assessment workshop that was held in November, and
41 there was an additional one at the SSC requested and provided by
42 the Southeast Fisheries Science Center.

43
44 These are as follows. The probability of not overfishing, this
45 is not probability of overfishing, but it's probability of not
46 overfishing, and the reason for this is so, when we look at
47 these, high scores are consistently good. A high probability of
48 not overfishing is good.

1
2 The second one, probability of not being overfished, what we're
3 calling B50, again, a high score means you are less likely to be
4 overfished. Those two are mandated under Magnuson-Stevens
5 National Standards, and then we added three others. One was the
6 average annual variability in yield, and so that's the
7 probability of having a low variability in yield. Your catch is
8 going to be fairly similar year to year, instead of swinging
9 wildly.

10
11 Long-term yield, and you can see this is for the last five years
12 and the next one is the first five years, and these are based on
13 those forty-year simulations that were done. Long-term yield is
14 where are we going to be forty -- What might we look like forty
15 years from now? How much yield would we get, as an indicator of
16 which models we might want to choose from us. One might do a
17 better job of getting us a higher yield, and maybe we want to go
18 with that one, but there is a short-term yield. What penalty,
19 if you will, or what sacrifice do you have to make now to get
20 that gain later on?

21
22 These are the ones that were used. We will have some comments
23 about how those were parameterized that could be used to improve
24 them in the future. As I said, the simulations were run for
25 forty years, and the whole point of this is that, if you meet
26 the performance criteria, it only indicates that the model is
27 robust to the degree of uncertainty that was given in the model
28 inputs, and so what we're looking at is what models perform
29 under the degree of uncertainty that we think is represented in
30 our data.

31
32 If they perform well, they get good scores and we would then go
33 on to say that, yes, here's a model we can use for that species
34 and so let's go to Step 2. Right now, we're just talking about
35 Step 1, and I will just give a few examples of what it looks
36 like. The data toolkit is rapidly evolving. I don't know how
37 many tools are in there. I think it was about fifty at the time
38 they did this, and there is probably sixty or seventy now, in
39 the newest iteration that just came out, we were told.

40
41 You're running a lot of things through here and then you're
42 finding out which ones are at least in the ballpark for you to
43 use. If they don't show up, they're just not going to be
44 considered.

45
46 This is kind of what an output looks like. These are a number
47 of models that were somewhat getting close. This is the
48 simulated population, and you can see that these are not all

1 100s, because these numbers represent a proportion of times
2 things came out on the good side of things. What you are
3 looking at is how everything scored relative to this line here,
4 and so this is the MSY reference.

5
6 The first thing you would look at, because of the guidelines we
7 have to abide by, are these first two. If you don't meet -- If
8 you have a model that can't tell you well whether you're not
9 overfishing or whether you're not being overfished, you don't
10 want to use that model, and so anything that's scoring under 50
11 percent here, you would throw that out right away. It's just
12 not going to work for you.

13
14 Here is 51 percent. Here is 55 percent. Do you want to go with
15 55 percent? It's only 5 percent more than 50 percent, whereas
16 you have others that are scoring up in the almost 70 percent for
17 that criteria, and you have others that were -- This tends to
18 score fairly well, but you can see these two models, again, were
19 not doing well, and so, again, you throw those models out.

20
21 You have a suite of models up here that seem to be okay, but
22 they are not doing too well on long-term yield. This bottom
23 model here is really particularly bad on that, and then all of
24 them tend to do fairly well in looking at the variability in
25 catch. Short-term yield, however, there is problems, and so we
26 look up here and we say, okay, these meet the legal
27 requirements, but it doesn't do a really good job at predicting
28 either the long-term or short-term yield, but they're at least
29 something that might work, whereas, down here, you might say
30 this is really too small of a probability and we don't want to
31 use that model.

32
33 This was for simulated population from the St. Thomas spiny
34 lobster results, and here is queen triggerfish. The data that
35 goes into the simulated model is data on queen triggerfish, and,
36 again, the suite of models are not the same. There is one here
37 that does not meet that criteria and another one that is
38 marginal there, but they're all doing pretty well on the
39 criteria about whether they can keep the population from being
40 overfished.

41
42 Some of them do okay for long-term yield, but we've already
43 thrown that one out, and the reason that -- That may be
44 aberrant, because of the factor. The others, these are at least
45 doing better than the previous model was doing. Here is another
46 one though that scores very low on short-term yield. If you had
47 to make a choice between a model like this and a model like
48 this, if both models are running, you might say, well, we accept

1 the outputs, but this is really not good at telling us what kind
2 of risk or what kind of sacrifice we're going to have to make,
3 but it's going to be large and maybe we don't want to go with
4 that one and we want to go with one or more of the other ones.

5
6 Again, this is just simulation, and here's a third example, and
7 this is stoplight parrotfish. Stoplight parrotfish was
8 specifically chosen to see whether it could handle something
9 where the data is very limited, and so this is like our poster
10 child of worst case that we were considering, and some of the
11 models were robust to that situation. Again, there are some
12 things here that we might want to throw out right away, but
13 there are others that are at least potentially performing, and
14 I've got to stress again that this is just potential. Are you
15 robust against the amount of uncertainty that we feel is
16 incorporated into the data that we have? If it fits that, then
17 we can try to do the assessment.

18
19 Our first comments are, first of all, we want to commend the
20 Science Center for the work done in SEDAR 46, because, with
21 respect to the scope, the quality, and the quantity of work
22 performed, it was -- As I said, it was a two-part process, and
23 it was looking at six species and not maybe the two that we do,
24 but they were incredible.

25
26 We're really excited about the management strategy evaluation
27 approach and the potential for using the data-limited toolkit to
28 provide management advice, and, specifically, we mean trying to
29 set OFL guidance, give us OFL guidance.

30
31 We find that the management strategy evaluation does represent
32 the best available science. Having said that, we do have a few
33 comments about maybe how that can be improved, but we are really
34 excited about this.

35
36 We recognize the value of the approach for further use, and we
37 have some specific recommendations on the improvements.
38 Unfortunately, we only had three days, and so, given the time
39 available and the time that we had to also address the control
40 rule on the agenda, we really were limited in our ability to
41 evaluate the results of the SEDAR 46.

42
43 We felt we needed more discussion of the models that came out of
44 these, because, normally when we have a SEDAR and it comes to
45 the SSC, there has been a conscious decision about what model is
46 the best one, and so the data gets explained, the model gets
47 explained, the outputs get explained to the SSC, and we're in a
48 good position to make a ruling.

1
2 In this case, we are dealing with so many different models, and
3 we just didn't have the time, and so we needed more discussion
4 of the models that came out, and we needed some discussion about
5 what you do after that point, the rationale for making a choice
6 between the models when we either need to make a choice or we
7 choose to combine the output of models, and so those things were
8 still pending, and we didn't think we could make decisions as
9 the basis for that.

10
11 We also thought that future presentations, either to ourselves
12 or to you guys, really need to have sort of an oversimplified
13 manner in how they're presented, so everybody is confident that
14 they understand what is going on.

15
16 Having said that, we did not feel that the results of the
17 applications, that is to say the specific species assessments,
18 could be used for management at this time, due to a couple of
19 factors. What we were concerned about is, one, there appears to
20 be a discrepancy between expected performance from the
21 management strategy evaluation and the resulting catch
22 recommendations from the applications. The second one was
23 difference in the magnitude of catch recommendations between two
24 model classes.

25
26 Now, there is lots of reasons for this, and I will give you an
27 example of just one of them that was really obvious, but we
28 didn't recognize it right away. One of the models for Puerto
29 Rico uses the expanded catch records and another model uses
30 catch per effort, and so that's not using the expanded catch
31 records. One model presents its output in expanded catch and
32 the other one does not. We were looking at those and saying,
33 how are these so far apart? There was a pause, and someone
34 actually had to go back and say, no, one is expanded and the
35 other one is not. When you expand it, they are much more
36 aligned.

37
38 There were little simple things like that that were coming out
39 that just needed to be checked. I showed you a number of
40 models, and a lot of those models differ just in slight -- Some
41 of them build buffers into them and some of them do not, and so
42 what impact do those buffers have? We actually had runs done on
43 the spot, well overnight, to see what's the answer without the
44 buffers, and so what is that most equivalent to in terms of a
45 regular assessment. Again, the Science Center did a really good
46 job turning those over rapidly and letting us look at that.
47 Nevertheless, we think some of this needs to be addressed, and
48 we have some recommendations on how to proceed with that.

1
2 **CARLOS FARCHETTE:** Rich, do you want questions?
3
4 **RICHARD APPELDOORN:** Sure.
5
6 **CARLOS FARCHETTE:** Blanchard.
7
8 **TONY BLANCHARD:** I've got a question, because I'm confused, and
9 I'm going to be honest with you. I was looking at the different
10 models that you used against the spiny lobster, and so I've got
11 a couple of question on that.
12
13 I am curious to know why we used certain species like the
14 lobster and the olewife and stuff like that, number one. Number
15 two, looking at the models that were used, how some of them is -
16 - The numbers are way off from let's say meeting the B50 to STY.
17 You are looking at 93 to 48 and about a thirty-something rating
18 difference, and my question is this. Are these the top
19 performing models?
20
21 **RICHARD APPELDOORN:** These are the models -- Well, by
22 definition, yes. These are the models that came out of the
23 evaluation that said, okay, we can consider applying these
24 models, but, if you're being strict about this, these two would
25 be thrown out right away, because they don't meet the legal
26 standards.
27
28 **TONY BLANCHARD:** What I'm looking at is if these are the top-
29 performing models and the numbers are so far off from one to the
30 other in performance, that is a little skeptical, to me, to
31 decide to take any one of them.
32
33 **RICHARD APPELDOORN:** Well, and that's why we talked about the
34 possibility of combining outputs, because every model has its
35 own -- I don't want to say biases, but it performs better in
36 certain situations and certain types of data than other models,
37 and a lot of the variability that you're seeing in there is due
38 to the variability that was put into the simulations, and so
39 variability is driving -- That's what we're testing here. How
40 well do you perform under variability? The variability affects
41 the models differently.
42
43 Then, as I mentioned, some of these -- These Islope things,
44 they're all the same model, but they have different buffers
45 built into them. This one has no buffer and this one has a
46 larger buffer and this one still has a still larger buffer.
47
48 One of the comments we're going to make is how these things were

1 parameterized. We had some discussion of that, and we had some
2 recommendations, particularly on short-term yield, but even on
3 things like the probabilities are actually not probabilities.

4
5 They are the number of runs where you met the criteria and the
6 criteria was defined for something like B50 as the answer being
7 at least above the mean of the reference population, and so
8 there might be better ways to parameterize these performance
9 criteria, so it will smooth out some of that difference that
10 you're talking about, but, again, a part of this is just that's
11 the difference between models in a highly-variable state.

12
13 If your degree of variability in what you know is reduced, these
14 things will start coming together, and so, if this was a Tier 1
15 assessment, we wouldn't have this kind of result, because all
16 the models should be saying the same thing. As we get more and
17 more uncertain about what's going on, you're using different
18 models, and they are going to key in on certain different types
19 of data, the ones that they're designed to work with, but
20 because the data themselves will have variability, that's going
21 to be reflected in these model evaluations.

22
23 Remember that one of the concerns that we had was it didn't
24 seem, and we actually tried to apply that, that the outputs
25 mirrored how their performance criteria look like, and so it's
26 sort of kind of what you're getting at.

27
28 **TONY BLANCHARD:** Me just sitting down here, if I've got to look
29 at this and you're going to ask me, if I was to choose, which
30 one I would choose, to be honest with you, I wouldn't choose any
31 one of them, because of the variability from one to the other,
32 especially if these are the top-performing models.

33
34 Then, when you start plugging in variations, a very small shift
35 in variation is going to mean a very big difference in the
36 outcome, and my thing is if you are asking for my vote of
37 confidence, I don't have any confidence in voting in any one of
38 them, and I don't mean to sound rude. I am just sitting down
39 here looking at the numbers.

40
41 **RICHARD APPELDOORN:** This is why I said there needs to be a lot
42 more debate about these things and they need to be presented in
43 a much more simplified manner, so everybody understands, because
44 the SSC went through these same kinds of questions with the
45 Science Center representatives, and I am not sure -- I don't
46 know, personally, how all of these things were parameterized.
47 We went through some of them and not all of them, but the degree
48 of variability you're seeing here should represent the largest

1 degree of variability, because that's what is built into the
2 system.

3
4 If the models can take the full range of variability, they
5 should work. Their ability to predict an outcome that you would
6 like, to be robust to giving you an outcome that we would have
7 confidence in, depends on both the model and how that
8 performance criteria was parameterized.

9
10 Some of the criteria really don't make a difference. These are
11 the same models with different buffers in. The short-term
12 sacrifice you have to make here is not any really different, nor
13 is the gain you're going to get out of its predictions in that,
14 and so they're kind of robust to the level of buffering put into
15 them, but all of them say, for long-term -- These are all based
16 on catch and effort, and these are all based on length-based,
17 and, for this particular criteria, the catch at effort ones are
18 performing better than the length-based ones.

19
20 For this criteria, the length-based ones perform better, but
21 remember we're throwing out these. Why do these fail? Because
22 they're letting you harvest too much in the short term,
23 probably, and so the difficulty you're having in interpreting
24 this, I think, is one of the things that we also had, and so
25 there is some work to be done with that, but the approach, we
26 think, is very solid.

27
28 Remember these are relative scales and they're not -- You are
29 comparing these 34's to that 48. You are comparing these to the
30 68, and, again, I reiterate that it all depends on how you
31 parameterize the performance criteria, and we had some issues
32 with some of that.

33
34 We didn't accept any of the applications to the species. One
35 species clearly did not fit. There weren't any models that
36 generated anything close, and that was for the parrotfish, and
37 so that was our test case for bad data, and it wasn't good
38 enough to really generate. Even though there are models that
39 said it could deal with it, when you actually put the real data
40 in, it wasn't giving us what we felt were reliable outputs. The
41 other ones were generating outputs, but we don't think those had
42 incorporated some things that needed to be adjusted before we
43 would accept the actual numbers that would come out.

44
45 Here are the recommendations for what we would like to see
46 further in SEDAR 46. The first one is to tune the operating
47 model to the observations from the fishery or demonstrate why
48 such a treatment is not going to affect the application of the

1 methods to each species.
2
3 By tuning, we mean that the input of the observed time-effort
4 series is conditioned to fishing mortality, and so the models
5 that we were looking at were not tuned to the data, and so if
6 the data has a trend or something like that, it wasn't adjusted
7 to account for that trend, and we felt that that was an
8 important consideration or, if the model is robust to that, then
9 we don't need to do it, but we need the demonstration if that
10 was the case.
11
12 Reevaluate the range of depletion inputs that go into the
13 management strategy evaluation, and that's the simulation part.
14 We were particularly concerned about the range of depletion used
15 for the lobster, and this goes back to concerns that lobster is
16 not overfished and their depletion range that was used was not
17 allowing for the population to actually be as large as people
18 think it is, and so we want to see how the models evaluate that.
19 A new suite of models could come out that do better if the
20 population is actually more not overfished than we think.
21
22 To avoid confusion, methods that do not meet the performance
23 criteria should not be presented, and so I just violated that
24 one right away, but I wanted to show you kind of the output that
25 we look at, but that was consistently a problem, is we would get
26 stuff and start talking about it and then we would go back and
27 say that we shouldn't be considering that one, because it didn't
28 meet the criteria.
29
30 Further work on performance metrics needs to be done and present
31 a full distribution of all the performance metrics. As an
32 example, short-term yield gives us the probability that the
33 proportion of runs of that model that met a certain level of
34 performance, on average, but what we're concerned about also is
35 if any of those runs drove the system to extinction, and so what
36 we're looking at is an average scenario, but we're not looking
37 at the variance on that scenario.
38
39 If a model gives you a good output on average, but on some of
40 those times you actually crash the fishery, that's not good, and
41 so we would like to have that kind of change, and so that's I
42 think probably the fifth point. More robust treatment of the
43 indices, as indicated by also the independent review panel that
44 looked at SEDAR, and they came up with that, or demonstrate why
45 those treatments of indices are not going to affect the
46 application.
47
48 This is really talking about catch per effort, but it could be

1 any other indices that you're using. We want to make sure that
2 the best practices are used, and, again, in trying to do this
3 whole package, everybody was under a lot of strain to meet
4 deadlines and see how these things evaluate, and so we would
5 like to see just a little bit more robust treatment again or
6 show that the methods are not subject to that, that they don't
7 need that kind of treatment to be applicable.

8
9 **MIGUEL ROLON:** Richard, can you go through what were the
10 concerns on Number 3, regarding the lobster?

11
12 **RICHARD APPELDOORN:** Quite a number of the methods need to know
13 where you think you're starting from, as I understand it, and so
14 a potential range of depletion going from not depleted at all,
15 and that is to say, by depleted, I mean not past your 50 percent
16 biomass criteria, to some things that are depleted, and so there
17 is a range involved.

18
19 In looking at the data, I think the mentality was that we're
20 trying to apply this to species that are largely overfished and,
21 therefore, to put into our model, we'll look at the range of
22 potential depletion, and we came back and said, no, that doesn't
23 account for some of the species where we think -- I am going to
24 use the word "depletion", but it's really they're in healthy
25 states, healthier than you have included in your range of data,
26 and we want to have that healthier state also represented in the
27 data, because there might be other models that, for species that
28 are in good shape, actually perform better.

29
30 **CARLOS FARCHETTE:** Blanchard.

31
32 **TONY BLANCHARD:** I've just got a question. These models that we
33 have here, did they ever -- Were they ever tested against data-
34 rich fisheries, like probably in Alaska, where you have a lot of
35 data on a species, and see how they run, see how the numbers
36 run, because we are dealing with data-poor, but I want to see
37 how they run against a good solid fishery with a lot of
38 information.

39
40 **RICHARD APPELDOORN:** I am going to hedge on my answer, because I
41 have not seen that, and so I can't say absolutely yes, but the
42 fact of the matter is that these models really could not be out
43 in the literature and past peer review if they weren't put up
44 against that kind of comparison, but, as I said, there is lots
45 and lots of models in there, and I don't know how many of those
46 went through versus some of those buffered ones, which are the
47 same model, but the buffered ones come up or should have come up
48 because they thought the un-buffered ones were not performing at

1 a level, but these are just coming in from the literature, and I
2 have not seen the literature, and it was not presented to us.

3
4 At some point, that's -- I don't want to say it's beyond the
5 SSC, but it's not our first concern. It's when stuff comes into
6 us, and so we had that same question of how do these perform
7 with real data from real fisheries, and they have been applied.
8 They seem to perform okay, but I couldn't give you the details,
9 because I haven't seen that literature first-hand.

10
11 **CARLOS FARCHETTE:** A follow-up?

12
13 **TONY BLANCHARD:** Because the point I'm trying to make here is if
14 these models don't stand up with good solid data, or they even
15 perform average with good solid data, with a species with a lot
16 of data on it, how are we expecting them to stand up against a
17 data-poor assessment, a data-poor species?

18
19 **RICHARD APPELDOORN:** Okay, but what our management strategy
20 evaluation is doing is two things. It is simulating a
21 population, and so it's simulating a situation where we actually
22 know perfectly what the population is doing, and then, from
23 that, you run the models against that perfect population, to see
24 how they perform when we incorporate all the variability in
25 there, and so you're taking, in this process, an ideal
26 situation, and so this is actually better than a well-studied
27 fishery. It's an idealized, we-know-everything fishery.

28
29 Then we are taking the degree of variability that we think is
30 inherent in all the data that we have, be it catch or catch-
31 effort or life history, whatever, except depletion, which we
32 wanted to have longer, and throwing that in, and it says how
33 well does the model work under that situation? Does it still
34 hold up?

35
36 You can see that we were getting maybe, best case, eight things,
37 and some of those didn't fit, and so maybe six, out of fifty-
38 something models, and so we're weeding out a lot of things based
39 on those ideal situations.

40
41 Again, going back to your question of have they been tested
42 against real live data in other places in the world, my answer
43 to that is probably yes, because I don't think they would get
44 through peer review, but this situation is actually testing them
45 against the still better scenario, which is we actually know
46 perfectly what's going on.

47
48 **CARLOS FARCHETTE:** We're good?

1
2 **RICHARD APPELDOORN:** Here is the deliberations of the SSC on --
3 This is control rule stuff, after two days of workshop on the
4 control rule thing, and so there was still a lot of discussion
5 going on, and we had to get down to just drawing stuff, and we
6 tried not to do it on the actual council walls.
7
8 **CARLOS FARCHETTE:** Thanks, Richard. Now we're going to move to
9 the roadmap.
10
11 **MIGUEL ROLON:** What are you going to do with the report?
12
13 **GRACIELA GARCIA-MOLINER:** And the recommendations that you have
14 on the screen?
15
16 **MIGUEL ROLON:** This is a couple of things that we discussed this
17 morning that is connected to this, and, just for the sake of
18 discussion, probably we can try to do both. In the long run,
19 next year, we can put together these workshops, but, at the same
20 time, we have an immediate need to move forward with the island-
21 based FMPs.
22
23 This morning, we were saying that perhaps we could use the ABC
24 control rule that we have so far in place and then the SSC can
25 use whatever information they have now to attempt to have an ABC
26 for as many species as possible between here and December 31,
27 and, as I say, this is just for the sake of discussion.
28
29 If we merge the two ideas, then we will have an SSC workshop
30 next year, probably followed by the other workshop with the
31 council members and the DAPs and everybody else, but the first
32 question we need to ask is how are we going to move? Perhaps
33 when we discuss now the roadmap that we can go back to these
34 questions, and so we don't have to push it at this time.
35
36 Also, we found that there is a lot of theoretical issues that
37 have been discussed today, and, by the way, everybody has that
38 presentation in the flash drive that we sent, so you can chew on
39 it a little bit more at home.
40
41 Mr. Chairman, we suggested that we would change the order of the
42 agenda to going to the roadmap and then Graciela and Bill can
43 guide us through that roadmap and see how it fits into what the
44 council would like to do with the island-based FMPs and these
45 issues related to the technicalities of the -- Not
46 technicalities, but the science behind the assessment that the
47 SSC has to give to us, provide to us, especially in terms of the
48 ABC and OFL.

1
2 Graciela will guide us through the roadmap draft that was
3 prepared by the staff. This roadmap is something that you would
4 like to consider, so anybody who comes from anywhere can read it
5 and will know where the council is and where we're heading to.
6

7 By the way, Mr. Chairman, I will be sending to everybody, and I
8 don't know if Graciela did it, but Ken Stump sent us a risk
9 policy roadmap that was prepared by the New England Council.
10 They changed the name, but it's exactly the same thing that we
11 were discussing before, just for perusal, so you will know if
12 you adopt anything like this, how it looks, in terms of the
13 document that you will be using for guidance. At this time, we
14 will just be happy with the roadmap discussion.
15

16 **GRACIELA GARCIA-MOLINER:** Did you just say that you sent it to
17 everyone or do you want me to send it to everyone?
18

19 **MIGUEL ROLON:** No, I can send it.
20

21 **CFMC ROADMAP TO COMPLETE IBFMPs**

22

23 **GRACIELA GARCIA-MOLINER:** What you have on the screen is
24 basically dates and the -- We are going to track changes,
25 because we already have a change to the roadmap from the time
26 that we sent it around. You are going to see that it's dates,
27 and it goes through what needs to be done in order to have the
28 island-based FMPs implemented at the end.
29

30 August of 2016, at the council meeting, we are going to discuss
31 and approve the goals and objectives, and that's a draft that
32 you have in the briefing book that was sent out. The SSC Chair
33 discussed the status of the ABC control rule, and, at the last
34 SSC, we did not get to the updates on Actions 1, 2, and 3.
35

36 The reason for that is because, when we were developing this, we
37 also had the SEDAR process ongoing, and we had hoped that you
38 would have finished by now and had given us OFL advice, so that
39 that could be brought to the council and the SSC could deal with
40 the ABC to give to the council and for the council then to see
41 if they were going to set ACLs close to that ABC or less than
42 that.
43

44 That was one of the options that we had, and so that, as Bonnie
45 said this morning, was running parallel to the effort of
46 developing the island-based FMP with the actions, as they had
47 been presented previously, and so, right off the bat, we can
48 move the updates in Actions 1, 2, and 3 to the next SSC meeting.

1
2 Come September or November, the SSC then needs to meet again to
3 finish the ABC control rule and to update the Actions 1 through
4 3 and actually go into the framework actions and essential fish
5 habitat. That is Actions 4 and 5.

6
7 At that meeting, there should be a review, and there should be a
8 letter from the council to the Southeast Fisheries Science
9 Center requesting the data availability to review landings data
10 and develop recommendations to council on appropriate year
11 sequences to be included in the control rule.

12
13 The alternatives right now include not doing anything and
14 leaving everything the way that they are, the way that they have
15 been set up for the ACLs, but it also includes the possibility
16 of looking at other year sequences besides the years that we
17 took as reference years earlier, and so then, at this stage, you
18 also need to incorporate the DAP chairs in the discussion, and
19 they should meet with their DAP members to report about the ABC
20 control rule.

21
22 That is one thing that we would have liked to have ready for
23 this document and for the development of the island-based FMPs,
24 because that's really basic in moving us up the tiers that the
25 SSC recommends to the council, and so that's something that
26 should not be left for later, or at least that's the feeling
27 that the SSC, I think, has conveyed, and staff agrees with that,
28 because it really is at a stage that it deserves to be
29 continued. If we drop it at this stage, then everything else
30 will move down the schedule.

31
32 The DAP members need to provide input on this ABC control rule,
33 and the CFMC will consider all of this for the December meeting.
34 That, at this stage, we don't foresee that it's really going to
35 happen unless the council provides guidance in terms of the P*
36 or the buffer, although the SSC has already included in the
37 tiers that if the council does not provide that information to
38 the SSC that the SSC will consider another scalar to provide the
39 council with an ABC. That is already part of the ABC control
40 rule. That has already been written in there, and so we have
41 then basically pushed the schedule back, so we are beyond
42 December, most likely, already.

43
44 One of the questions that was raised earlier had to do with the
45 response from the Science Center in terms of the SEDAR 46 and
46 whether that could be done within the next few months, before
47 the next SSC meeting, and so that would have to be in
48 consultation with the Southeast Fisheries Science Center, and

1 that would bring two things to the table.

2
3 One is the response to that SEDAR information that's been
4 requested and two is the review of the landings data to
5 determine what reference years we're going to use, and that then
6 would be from the Southeast Fisheries Science Center to the SSC
7 to discuss.

8
9 In addition to that, there are the DAP meetings that have to be
10 scheduled between now and December to also review the landings
11 information and to discuss, as we did for both the SFA and the
12 ACL, what issues need to be considered when you're looking at
13 reference years, if there have been regulations in place or if
14 there have been dramatic changes to the fisheries over that
15 period of time or if the changes in the form really have a
16 bearing on the type of landings information that we will be
17 looking at, and so all of that information has to be brought,
18 again, to the table for discussion at both the SSC and the DAP
19 meetings.

20
21 If we were going to be on schedule, then, at the December
22 council meeting, the SSC Chair and the DAP Chairs would have to
23 be presenting a final draft of the ABC control rule. The
24 council would have to discuss and vote on draft actions and
25 alternatives, and then there would be a request of staff to
26 develop the public hearing draft for the spring council meeting.
27 Are there any questions so far or any comments? Okay.

28
29 The January to April of 2017, we're already looking at dealing
30 with a couple of things at the beginning of 2017. The DAP
31 meetings would have to review all of the actions and
32 alternatives. The SSC meeting will be to review all actions and
33 alternatives, and the staff will develop a public hearing draft,
34 and so that will be the first quarter of 2017.

35
36 By the April 2017 council meeting, there will be discussion on
37 the public hearing draft and a vote to conduct public hearings.
38 The DAPs would meet and informational meetings with the public,
39 and so staff will be taking the information to the public in a
40 very non-public hearing type of meeting. There will be
41 questions and answers and a discussion to inform the public
42 about what is coming in the public hearings and to convey the
43 message of what we're trying to do to the fishing community.

44
45 It's basically to bring everything that's in the island-based
46 FMPs to the public at the same stage to review the information
47 that's available, the actions and alternatives that are in the
48 document, and what bearing that has on the fishing community.

1
2 April of 2017, the public hearings would be conducted in Puerto
3 Rico, four of them, and St. Thomas/St. John and St. Croix, one
4 each. August of 2017, the council meeting, review the public
5 hearing comments and consider adjustments to the actions and
6 alternatives.

7
8 August to December of 2017, conduct a second round of public
9 hearings. It's been the experience that when we're dealing --
10 Because you will be, most likely, setting new ACLs and there
11 have been changes that have taken place in the way that business
12 is conducted, most likely there would be a second round of
13 public hearings to consider any changes that have been made.

14
15 Then, by December of 2017, the council will review the public
16 hearing comments and make changes, if needed, to the preferred
17 alternatives. Finally, the spring to the summer of 2018, the
18 council considers the codified text and the final draft for
19 submission to the Secretary of Commerce. That was the roadmap
20 two or three weeks ago, before the SSC meeting, and so we have
21 already, most likely, moved everything down by three or four
22 months, from the top to the --

23
24 **MIGUEL ROLON:** Can you go back from here to December?

25
26 **ROY CRABTREE:** I appreciate all the thought and work that went
27 into that, and it's interesting, but my preference is that we
28 come up with a much quicker timeline on this, and so this
29 amendment is one of these things that I wanted to get done
30 before I retire, and I'm not sure this roadmap gets me there.

31
32 You know, I worry that we're trying to pull too many things into
33 this and trying to do too much with this amendment, and I think
34 we ought to keep in mind that the process of amending these
35 plans is ongoing, and so we don't need to try and do everything
36 in this amendment.

37
38 I think we already have worked through the species that we want
39 to manage, and we've made good progress on that. That's Action
40 1. It seems to me, with the species groupings, that we can
41 maybe tweak what we've already put together, but I don't think
42 we need to make wholesale plans on it at this time.

43
44 My suggestion for you on the reference points and the landing
45 years is we've got the status quo landing years that we're using
46 now. Now, I think we have some species in, I believe it's just
47 St. Thomas, but maybe St. Croix as well, that weren't in the
48 form prior to 2011 or so, and those we have not been applying

1 AMs to, because it was a reporting thing, and so it seems, to me
2 that, we need to refine those based on the more recent
3 timeframe, but I don't really see that we need to get into
4 wholesale changes there.

5
6 It seems to me, with the control rules, that we've got Tier 4,
7 and that's what we're going to use in this amendment, and we
8 ought to have our status quo control rule Tier 4 as an
9 alternative to that. Then we would be largely done with this,
10 and so my timeline on this would have us review all of the
11 alternatives at the December meeting and complete the analysis
12 of it by the March meeting and approve a public hearing draft in
13 March, take it out to public hearings, and come back in August
14 of 2017 and vote it up and submit it to the Secretary.

15
16 I would hold off on Tier 3 of the ABC control rule and the
17 outcome of this SEDAR until another day and another amendment
18 and get focused on this and get this done. I think the biggest
19 decision, and the most important part of this whole thing, is
20 the action to decide what species we're going to manage, and
21 that, we need to get done.

22
23 I think with the Tier 4 alternative in there that there may be
24 some modifications to some of the ACLs, maybe in the case of
25 spiny lobster, that give us a few more fish. I don't know, but
26 it seems to me if we took that path on it that we could do this
27 at least a year earlier and ahead of this one and it would be
28 something manageable.

29
30 I am just worried, with so much in this amendment and taking so
31 long on it, you know between now and August of 2018 that there
32 are going to be all kinds of other issues that come up. When we
33 get the results of this SEDAR, there may be rebuilding plans or
34 who knows what all is going to be there, and if we keep dragging
35 more and more into this amendment, my worry becomes that it just
36 goes on forever, and so my recommendation to you would be that
37 we simplify this a little bit and not try to deal with
38 everything. Keep this something manageable, and let's try to
39 get it done by the late summer of next year.

40
41 **CARLOS FARCHETTE:** Blanchard.

42
43 **TONY BLANCHARD:** I am going to support Dr. Crabtree and his
44 move, yet again. Really, I think we're trying to bite off too
45 much at one time. You don't knock down a wall by taking the
46 middle of the wall. You knock it down from top to bottom, piece
47 by piece.

48

1 I think we've got too much on the table right now, and we need
2 to get certain things straightened out, because all we're going
3 to be doing is in a standstill, spinning in a circle and going
4 in place, and so I believe his approach is the right approach,
5 and I will support that.

6

7 **CARLOS FARCHETTE:** Dr. Ponwith.

8

9 **BONNIE PONWITH:** Thank you, Mr. Chairman. I certainly think
10 finding a way to expedite this is smart, because you're right
11 that there's always going to be another thing coming around the
12 corner to take into consideration.

13

14 One counterproposal to that is the notion of the ABC control
15 rule. Right now, the issue that is causing the most
16 consternation is the setting the P* value, and the way the SSC
17 has set up that ABC control rule is that if that is not done
18 that they've got a Plan B, and that is to apply a scalar within
19 the SSC.

20

21 Without having that decision made, postponing that decision
22 still results in an ABC control rule that has utility, and that
23 has the advantage of, if we get to a point where the SSC is
24 comfortable with the analyses and the results from this last
25 round of stock assessments, those can actually be used, and so
26 that would be my one amendment to the recommendation.

27

28 **CARLOS FARCHETTE:** Any other comment? Marcos.

29

30 **MARCOS HANKE:** I agree. I didn't intervene at first, but I
31 really agree that we have to expedite everything, and I need to
32 know if we need to make a motion or something for this. Roy, I
33 agree with what you said, and are you going to make a motion to
34 move this on or what is the procedure?

35

36 **ROY CRABTREE:** I think, just as long as staff is clear and
37 understands what the guidance from the council is -- Otherwise,
38 if you feel like you need a motion, I would have to think about
39 how to put all of that in a motion.

40

41 **MIGUEL ROLON:** I believe that we don't need a motion. What we
42 need to really write on the screen is what is it that we're
43 going to do, and Graciela and Bill probably will have to write
44 something along the lines of what you're saying, so people can
45 take a look at it and we will know where we are.

46

47 We are saying that we are going to expedite -- In the roadmap,
48 we would like to have, by the summer of next year, a document

1 that can be taken to the Secretary for consideration. Between
2 here and now, you have to meet with the SSC and then forget
3 about P* for a while. Then you look at the species that you
4 have and try to come up with an ABC using 4b for the majority of
5 the species.

6
7 Then the staff has to prepare the document accordingly. Between
8 here and December, we will have to have another SSC meeting, at
9 least, and I don't know, Graciela, how much time the SSC will
10 need to do that, and Richard.

11
12 **GRACIELA GARCIA-MOLINER:** Not only an SSC, but you also need to
13 meet with the DAPs.

14
15 **MIGUEL ROLON:** I know, and that's part of it, but the other
16 thing about the DAPs is that the DAPs need to have some
17 questions addressed to them, because you don't go to the DAPs
18 and look at them and -- They will need to have some direction as
19 to what is it that you need from them, for the specific
20 questions to them. I believe that Bill has some wise words to
21 follow.

22
23 **BILL ARNOLD:** I would suggest that we don't need anything
24 between now and December. We can build at least the first three
25 actions and their alternatives. I think Bonnie is comfortable
26 and Richard are comfortable with the ABC control rule that was
27 created last Monday and Tuesday. We would use that in our
28 alternatives and we can come back with a draft document in
29 December that would give you guys something to look at with
30 specific details, actual actions with their alternatives.

31
32 Then you could have an SSC meeting to actually use that
33 information to develop your reference points through the ABC,
34 and that could be considered by the DAPs if they so wish, but we
35 can make those decisions in December. I think we've done
36 everything we need to do to build those actions and
37 alternatives. Maybe not Action 4 and 5, but Maria is going to
38 talk about those in a little while, and I think we'll get enough
39 guidance to do Action 4 and 5 as well.

40
41 **CARLOS FARCHETTE:** Roy.

42
43 **ROY CRABTREE:** It does seem to me that what we need now is to
44 bring back the bones of the amendment, all the alternatives and
45 all the actions, all the pieces of this, for us to look at in
46 December. Then if we're okay with it at that point, then, yes,
47 you can take that to the DAPs and we can get their comments. If
48 you want to go back to the SSC with it to fill some in, we can

1 do that.

2
3 I am still of the opinion that the P* and the Tiers 1 through 3,
4 when the SSC gets done with these assessments and all the output
5 from this latest SEDAR, bring that all to us. We will have to
6 amend the plan to deal with that and we can adjust the control
7 rules accordingly. If that means they have to use some interim
8 buffer or something like that, that's fine, but understand the
9 process of implementing what comes out of that, we will try then
10 to pick up a risk of overfishing, but it seems to me, until that
11 comes back to it, I don't know how we have a basis for doing
12 that.

13
14 As much as we got wrapped around the axle this morning, I would
15 prefer for us to move forward with this with just the status quo
16 and the Tier 4 and get this done, and so I think, right now,
17 what staff needs to focus on is fleshing out this amendment as
18 much as we can, doing as much of the analysis and putting all
19 the pieces together on this, and let us look at in December.

20
21 Then, if we're on an August timeframe for final action, we have
22 time to go back to the SSC and the DAPs and get a public hearing
23 draft ready and do the public hearings and review all of that.
24 Maybe we meet in June if we need to or whatever, and then we try
25 to stick to that kind of path. Then we will deal with the new
26 SEDAR when it comes in. If we get this new SEDAR and all of
27 this presented to us in the spring or summer of next year, then
28 we deal with that and try to implement that in 2018.

29
30 **CARLOS FARCHETTE:** Maria.

31
32 **MARIA LOPEZ:** This is Maria Lopez, and I'm the lead of the
33 interdisciplinary plan team for this action from NOAA Fisheries,
34 and I just have a point of clarification. For the island-based
35 fishery management plans, we have three fishery management
36 plans, one for each island, and we also have associated NEPA
37 documents. That means that we have six documents that the staff
38 is preparing for this.

39
40 What we are doing right now, these actions that you are looking
41 at are the actions, once we choose the preferred and the council
42 is set with what they want to do with those actions, that is
43 what is going to go into those fishery management plans with
44 those particular actions. Everything else, we're bringing from
45 the old plans.

46
47 Again, as Roy said, in the future, we can amend these fishery
48 management plans to include everything else that we want to do,

1 but I just wanted to bring that to your consideration for timing
2 purposes. It's six documents, and, again, we're going to have
3 five -- Right now, we have five draft actions.

4
5 We have the species, and you guys are pretty much set on those
6 right now, the groupings. Still some decisions need to be made
7 on management reference points and framework actions and
8 essential fish habitat for those new species, and we can talk
9 about that a little bit later.

10
11 **CARLOS FARCHETTE:** Miguel.

12
13 **MIGUEL ROLON:** In essence, if we copy what Roy said, that will
14 be our mini-roadmap to finish the island-based FMPs by the
15 summer of 2017. I need to know if that's -- If nobody says
16 anything to the contrary, then the staff will move forward.
17 Then, by the December meeting, considering everything that Maria
18 just mentioned, you will have a document that you can look at,
19 and then that document could be taken to the DAPs and maybe the
20 SSC again, and hopefully, between January and May, we will be
21 able to go to public hearings. You will have the input of the
22 public by maybe the June meeting or earlier.

23
24 **CARLOS FARCHETTE:** Roy.

25
26 **ROY CRABTREE:** Yes, that sounds good. I mean, its ambitious,
27 because, as Maria pointed out, it is three amendments, but I
28 think that's a good goal, and I think it's doable, and at least
29 it gets us on a path of certainly trying to get this all taken
30 care of sometime next year.

31
32 **CARLOS FARCHETTE:** Blanchard.

33
34 **TONY BLANCHARD:** I would like to defer my statement to Mr.
35 Magras in the back there, because he has some concerns and he
36 needs some clarification. I will let him speak.

37
38 **JULIAN MAGRAS:** Maybe I am not clear this time. Normally, I'm
39 pretty onboard with what's going on, but I don't see what is the
40 big rush to try to get this document in one year instead of
41 getting it done in two years.

42
43 I understand you might want to retire, but no disrespect for
44 that, but, when you retire, you're going to be collecting a
45 check. I fish for a living, and my fishermen are fishing for a
46 living, and, if we're going to come up with an island-based
47 management plan that's going to work for St. Thomas and St.
48 John, I want to make sure that it's done with enough time that

1 all of the users in my DAP panel can provide their input with
2 the working with the Science Center and all the powers that be,
3 to ensure that when the document is completed that it not only
4 works for what the scientists want, but it actually works for
5 what the fishers want.

6
7 I am here, once again, going to put forward to this council that
8 you guys have got to be careful what we're going to be rushing,
9 because I thought the plan that was put up, that Graciela
10 presented at first, was a very good plan. It gave the different
11 groups a chance to ensure that the information that was going to
12 be provided for this plan would have time for it to be vetted
13 and time to make sure that everything was included correctly
14 this time around, instead of having to try to come back down the
15 line and go through another whole long, drawn-out process, which
16 we know how long it takes to change something, with all the
17 public hearings and public comments and everything. The same
18 time it will take you do this here and, if you run into a
19 problem, it's the same amount of time it's going to take you to
20 go back and make a correction. I am a little worried about
21 rushing this through in a one-year period, and that's my
22 comment.

23
24 **ROY CRABTREE:** Let's remember that I think we've been working on
25 this now for three years. I think it has been two to three
26 years. Bill, we've been at this quite a while.

27
28 **MIGUEL ROLON:** April of 2014.

29
30 **ROY CRABTREE:** 2014, okay. It's been over two years, going on
31 three years, and so I don't think we're rushing it, and the
32 trouble is trying to pull in a whole new set of science that we
33 don't have yet and waiting on that or going ahead and getting
34 this done and then dealing with the new science that's coming
35 in.

36
37 If you keep waiting and waiting like this, there is always new
38 science coming. Science is a never-ending process, and, if you
39 keep waiting and waiting, it's a recipe for not getting things
40 done, and so I hear what you're saying, Julian, and I don't want
41 to rush this, but it seems to me that we've been at this a good
42 while now, and I would like to find a way to make a little
43 better progress on it and move it forward.

44
45 **MIGUEL ROLON:** To that point, Julian, and to the others, what
46 Roy is saying is rushing this is not rushing the decision. It's
47 rushing to put together the paper. Right now, you don't have
48 anything to shoot at. What you have is a bunch of ideas here

1 and there, and what Bill mentioned is they are proposing to have
2 a document by December, so we will know what we're talking
3 about.

4
5 Personally, I believe there's a rush to examine the ACLs. That
6 is killing the fisheries, and you won't be able to do that until
7 you have a plan in place. These plans will be addressing each
8 one of the areas, and one of the problems we have now is that
9 it's very difficult to focus on St. Thomas/St. John and St.
10 Croix and Puerto Rico piecemeal.

11
12 The plans will give us a better focus on each one of the areas
13 and what we need to do and everything. The DAPs and the other
14 groups will be embedded in the discussion. Actually, nothing
15 will be moved until we get the input from these groups and the
16 general public, but at least this way, and I am not in favor of
17 it one way or the other, but I just want to move it. I will
18 probably retire before Roy Crabtree, and so I don't care one way
19 or the other, but, if we have this document by December, at
20 least we will know where the gaps are, where the problems are.
21 Actually, at the December meeting, you can say, well, we need
22 three more years to discuss this, or we can do it in a couple of
23 months.

24
25 By that time, you will be able to know exactly what you are
26 talking about. You will have in writing what this is all about
27 and the possible alternatives of how to direct this.

28
29 The other thing is that we tend to think that when we do
30 something that we forget about the others or it's either this or
31 the other. We can run parallel to this the other things that we
32 discussed this morning about the workshops and all of that, but,
33 at least this way, you will have something in place by next
34 year, probably, that you will call a draft IBFMP for each one of
35 the areas.

36
37 You can also identify where we are lacking information and where
38 do we need to work a little bit more to improve the system. The
39 ABC control rule could be changed if we have better information,
40 if we validate everything that we talked about this morning, and
41 so I am saying all this to give you an idea of what will happen
42 if we adopt this strategy for proceeding, having a draft
43 document by December and then following with meetings of the
44 DAPs in the first quarter of 2017.

45
46 **CARLOS FARCHETTE:** I have Bill and then Julian.

47
48 **BILL ARNOLD:** I don't know who came up with this crazy roadmap

1 idea, but, actually, they're good. We've got timelines. Roy
2 has the short-end of the timeline, and Graciela laid out the
3 long-end of the timeline, but all we can do within the framework
4 of those timelines is come back to the next council meeting, and
5 that's all I'm asking.

6
7 Regardless of what the timeline is, give us a clear objective
8 for the December council meeting. We will come into the
9 December council meeting having achieved that objective, and you
10 can look at what we've done and then we can worry about the next
11 steps. There is no sense getting ahead of ourselves.

12
13 As Miguel hit the nail right on the head, not only do we need --
14 I'm pretty sure everybody agrees with this. We need to get
15 these ACLs updated, but also we need to get these island groups
16 separated, and, when we talk about timing here in a little
17 while, you're going to set yet another example of why we've got
18 to start working on an island basis and get away from the
19 species basis, because you're going to find, with the timing,
20 that the Puerto Rican group wants something completely different
21 from the USVI group.

22
23 As long as they're bunched together, it's much more difficult to
24 accomplish everything for everybody, and so I say, as I always
25 say, over and over again, the sooner we can get these new FMPs
26 in place, the better we're going to be able to manage fisheries,
27 in my opinion, in the U.S. Caribbean. That should be our focus
28 and, as Roy says, there is always going to be updates. There is
29 always going to be changes.

30
31 That is going to go on for the next ten or twenty or thirty
32 years, eventually, even as I get old, and so I really think that
33 the directive now to staff should be get those actions together
34 and get those alternatives together and get them in writing, so
35 we can put them on the screen clearly and coherently and bring
36 them back to the December meeting and let's go from there.

37
38 **CARLOS FARCHETTE:** I have Julian and then Graciela.

39
40 **JULIAN MAGRAS:** I still don't understand what the rush is, but
41 you know we met here earlier this year and we came up -- Each
42 one of the different islands had their opportunity to go and sit
43 down and create their list of how the different fish should be
44 looked at for setting ACLs.

45
46 St. Thomas/St. John and St. Croix took those lists and we took
47 it a step further. Fish and Wildlife and their team created the
48 new catch report form that was given to the fishermen at

1 registration in July of this year. In between those few months,
2 a new catch report form was formulated and presented to the
3 fishermen. Education was given to the fishermen on how to get
4 all the information that's needed now for setting the ACLs for
5 these different groups and single species.

6
7 I know it takes a couple of years of collecting that data, in
8 order for anything to be used, but to sit here and try to rush
9 the process and say that we are just going to move with Tier 4
10 and throw the other three tiers out, I have a problem with that,
11 because, from having some discussions earlier today, I
12 understand that a lot of our species actually, in the top ten,
13 can fall into Tier 3, but that's not on the table for discussion
14 here, and so I am just a little weary of how fast sometimes we
15 try to move stuff along and then what happens in the long run is
16 the fishermen are fighting to try to get things corrected or
17 revisited.

18
19 A perfect example is the seasonal closures that were put in
20 place twelve years ago. Nothing has been done with that, and
21 guess what? They are still closed for three months every year.
22 Do we know what those species are doing? No, we don't know
23 nothing about them, and so, as a representative for my group,
24 and also being a commercial fisherman, I tend to look at
25 sometimes we rush to put rules in place because it helps you
26 guys move forward as scientists and the people who set the
27 rules, and you don't really take into consideration the
28 stakeholders, which are the fishers, which we have to provide
29 for our people, and so I've got my comments out there, and I am
30 looking forward to seeing how we're going to move forward with
31 this.

32
33 **CARLOS FARCHETTE:** Bill.

34
35 **BILL ARNOLD:** I am sensitive to Julian's comments, and I
36 certainly understand where he's coming from, and I mean that. I
37 am not trying to rush this, and I'm not trying to make it go
38 slow. All I'm trying to do is say here is our next step for our
39 next meeting. At this point, I really think we need to focus on
40 that.

41
42 Forget about how long. Forget about March. Forget about
43 December of 2017 or 2018 or 2019. Let's just focus on December
44 of 2016 and what we're going to do at that meeting, and I think
45 Graciela and Maria and I and everybody else who may be involved
46 feels, and slap me if I'm wrong, feels pretty strongly that we
47 can accomplish what we're being asked to do for the December
48 2016 meeting. Personally, I think this horse is starting to

1 suffer a little bit, and let's get it done and give us our
2 direction and move on to the next topic, because we've got a
3 whole bunch of things to discuss, and that's not to rush it, but
4 it's just to get us to work. That's what you're paying us for.

5

6 **CARLOS FARCHETTE:** Bonnie.

7

8 **BONNIE PONWITH:** Dr. Appeldoorn has suggested some additional
9 analyses that the SSC is interested in the Southeast Fisheries
10 Science Center staff looking at and the clarity of those
11 instructions would be really helpful, so that we can be careful
12 in budgeting our time of the analysts and whatever data time we
13 need to be able to get that done as effectively and efficiently
14 as possible. The reason that I mention that is, in the roadmap,
15 one of the bullets is to review the data landings and take a
16 look at the landings data to look at the time series.

17

18 If there is any data prep required above what has already been
19 done, there again, I would urge us to be in good informal
20 conversation to talk about what we think is needed and land on a
21 clear understanding of what that is and then actually get a
22 written tasking memo, to make sure that we don't do any spinning
23 of wheels and that we also partition our time to the highest-
24 priority tasks, to keep this moving.

25

26 **CARLOS FARCHETTE:** Graciela.

27

28 **GRACIELA GARCIA-MOLINER:** A couple of things. We do need the
29 SSC to finish up the Action 2, to review the stocks and stock
30 complexes, because that will determine how you're going to use
31 the landings that are available from the Science Center, and so
32 the SSC has to meet.

33

34 The SSC probably needs to meet also with the DAPs, probably a
35 day each and separate, so that there will be no -- It will be
36 easier to deal with all the data from one place, and then the
37 DAP Chairs can remain for the rest of the days, but they won't
38 need that input in order to finish up that Action 2.

39

40 Once that is done, then you move into Action 3, and that's where
41 the information from the Science Center is important, and it's
42 important because, yes, there have been changes to the forms,
43 and that needs to be brought to the SSC and to the DAPs, to see
44 how that conforms to the stock complex, because if the SSC
45 decides that they would like to request or suggest or recommend
46 to the council that you use indicator species for the stock
47 complexes, instead of the way that they are set up now or doing
48 species-specific information, then that also needs to be

1 considered. How are we going to look at these different
2 species? Which one is going to be the most vulnerable? Which
3 one is going to indicate that there is something wrong with that
4 unit?

5
6 These are issues that will take at least one more meeting of the
7 SSC and the DAPs and the Science Center and the Regional Office
8 together to bring that to fruition, and so Actions 2 and 3, yes,
9 they can be written if you're just doing the status quo, and
10 that's one thing, but, because you do have eighteen new species
11 for Puerto Rico and three for St. Thomas and two for St. Croix,
12 you might not have all the information from the landings data,
13 and so all these life history parameters and ecological function
14 has to be brought in.

15
16 It requires that that be built up from the SSC, with
17 recommendations to the council, and the DAPs are extremely
18 important, because, if there is any missing information, in
19 terms of the availability of landings data or life history
20 parameters or ecological function or habitat distribution, the
21 DAPs are going to be the ones to supply you with that
22 information, and so one more meeting between now and the next
23 council meeting for the SSC and the DAPs is a must, or at least
24 that's my recommendation.

25
26 **CARLOS FARCHETTE:** Roy.

27
28 **ROY CRABTREE:** My thought would be that, at this point, we're
29 going to have to make some adjustments to the stock complexes,
30 because we're going to take some species out and add some
31 species in, but that doesn't mean that we need to come in and
32 make wholesale changes to it, and I would recommend that we hold
33 off with indicator species until a later date and not get into
34 that now.

35
36 Right now, as far as I can tell, we don't have information
37 telling us what the status of a species is, and so I'm not sure
38 what it's going to indicate to us. Once we get that, then I
39 think that's something we come back to. My thought, right now,
40 is we would go with the status quo species groupings and then we
41 would need staff to bring us some alternatives with the new
42 species and we would decide whether they go in an existing group
43 or whether they stand alone or something, and so I am less
44 convinced than Graciela that all of that is needed, but I
45 wouldn't get into wholesale adjustments of the species groups
46 and all that at this point.

47
48 **CARLOS FARCHETTE:** Bill.

1
2 **BILL ARNOLD:** We're not coming back in December with a final
3 document with any decisions made. What I am suggesting is that,
4 before the SSC meets again, before the DAPs meet, that we have a
5 clearly laid out set of actions and alternatives that they can
6 then look at and say, all right, this is good or this isn't so
7 good or we need to change this. Nobody is going to be assigning
8 any numbers. No reference points will be set or anything.

9
10 We are just going to give them the structure, give you the
11 structure, at that December meeting that you can then say, okay,
12 now we're going to schedule a set of DAP meetings and now we're
13 going to schedule an SSC meeting and here is what you're going
14 to be working on very specifically, because the DAPs have been
15 through all of this. They have given us -- All three DAPs have
16 given us their species choices, species for management choices,
17 and given us tables. They have given us tables of how those
18 species should be grouped, and so we've been through that
19 process.

20
21 The SSC has given us their ABC control rule. We have all of the
22 default year sequences and everything else that have been used
23 to create the reference points, and so we can bring all of that
24 together into a single document for each island group, because
25 there is no sense in the Puerto Rico DAP looking at the St.
26 Croix scheme.

27
28 Then we can put those in front of them and they can evaluate
29 them. They can provide guidance as to needed changes. I feel
30 that, and rarely do I disagree with Graciela, but I just feel,
31 in this case, those meetings would better be scheduled in the
32 early winter of 2017, after we have this document structured.
33 Then everybody is going to be on the same page. Everybody has
34 pretty much got the basic structure of each of these five
35 actions, and I think we'll have five then, and they'll all be
36 able to make very specific comments on very specific aspects of
37 the actions and alternatives. That is just what I am getting
38 at.

39
40 I am not trying to take the DAP out of this process or the SSC
41 out of this process. Just the opposite. I am trying to give
42 them -- Take all that they've given us and put it together into
43 coherent documents and then go on from there, because they've
44 given us a ton of stuff. They have spent hours and hours and
45 days working on this stuff, and we still don't have a document
46 to show them that reflects the fruits of all of that labor.

47
48 **CARLOS FARCHETTE:** Miguel.

1
2 **MIGUEL ROLON:** I agree. Tony Blanchard, Roy Crabtree, and
3 Marcos Hanke already moved this morning -- They told us this
4 morning that they wanted to move forward with this. The rest of
5 the council members, looking at your emails and everything, do
6 you agree that this is what we should do, to bring to the table
7 a document that will encompass everything that the DAPs have
8 told us before and everything that Bill said, so you can move
9 forward with the discussion at the DAP level, the SSC level, and
10 other levels that you need to? If you keep quiet, then, by
11 consensus, we will go ahead and do it.

12
13 **CARLOS FARCHETTE:** So moved.

14
15 **MIGUEL ROLON:** Then, for the record, we will bring to you, at
16 the December meeting, the document as described by Dr. Arnold.
17 By the way, the genius behind this roadmap is our illustrious
18 Dr. Arnold, and so that's why he was criticizing it. He was
19 alluding to himself there. He's got a good sense of humor. Can
20 we move, Mr. Chairman, to the rest of the agenda?

21
22 **CARLOS FARCHETTE:** Okay. We are going to go to Goals and
23 Objectives for the IBFMPs. While that is being brought up, I
24 want to put this on the record, because we keep talking about
25 how lobster is looking good and that we may be doing something
26 different for lobster, because of outside recruitment and all
27 this, for the record, I'm sure that's for both the USVI and
28 Puerto Rico, but, particularly for St. Thomas, I want the
29 scientists to look at red hind and queen trigger, because they
30 are very abundant species on St. Thomas, and so we need to take
31 a look at that, too, and I think that the ACL needs to change on
32 that also. Not for St. Croix, but St. Thomas. Graciela.

33
34 **GRACIELA GARCIA-MOLINER:** I just have a point of clarification.
35 In my agenda, it says that you wanted, after this, to talk about
36 EFH and the action, or do you want to go into the goals and
37 objectives?

38
39 **MIGUEL ROLON:** We are going to go into goals and objectives now,
40 and Ruth requested a thorough explanation of EFH when we got
41 into the goals and objectives.

42
43 **GRACIELA GARCIA-MOLINER:** Okay, and so do you want to present
44 what the Virgin Islands brought regarding the goals and
45 objectives or do you want to start from scratch?

46
47 **MIGUEL ROLON:** Ruth, what do you prefer? Do you want to give us
48 your input first or --

1
2 **GRACIELA GARCIA-MOLINER:** You have an edited version of what we
3 sent, right? Then probably look at that first.

4
5 **ISLAND-BASED FISHERY MANAGEMENT PLANS**
6 **GOALS AND OBJECTIVES OF IBFMPS**
7

8 **MIGUEL ROLON:** We sent to everybody the goals and objectives
9 draft, and I believe that what the Virgin Islands has done is
10 they went through that draft and they have some input and some
11 modifications for you to consider.

12
13 **CARLOS FARCHETTE:** That was sent to us by email also by the
14 USVI?

15
16 **GRACIELA GARCIA-MOLINER:** It's in the briefing book.

17
18 **CARLOS FARCHETTE:** Okay.

19
20 **RUTH GOMEZ:** Pretty much what happened was Julian Magras, Tony
21 Blanchard, myself, and Commissioner Henry got together and took
22 a look at the draft goals and objectives that was sent to
23 everyone, and what we did, or what I did, I think, to make it
24 less of a confusing process, is, if you scroll down, in red is
25 what the Virgin Islands would like to see as a goal and
26 objective, and so pretty much what you have there is nothing
27 changed for your goals from 1 to 4, except we added "as a major
28 endeavor" and so everything remained the same, and we struck out
29 "and to the extent practicable". The strikethroughs are what we
30 want removed, and the red is what we want to be added.

31
32 **MIGUEL ROLON:** Ruth, can you explain the phrase "as a major
33 endeavor" versus "to the extent practicable"? What is the
34 rationale?

35
36 **RUTH GOMEZ:** Exactly as a major endeavor. It's important to the
37 Virgin Islands. Everything else, we were happy with, from 1 to
38 4, and we didn't change anything.

39
40 **CARLOS FARCHETTE:** Okay. Are there other changes in there
41 though, in the objectives?

42
43 **RUTH GOMEZ:** In the objectives, there is a lot of changes.

44
45 **MIGUEL ROLON:** Let's take it one at a time and see if the
46 council agrees with the phrase the substitutes "to the extent
47 practicable" in Goal Number 3 and then we can move forward to
48 any other changes that they have.

1
2 **CARLOS FARCHETTE:** Iris.
3
4 **IRIS LOWERY:** I haven't seen this document before, but I would
5 just be a little concerned. I believe that the language in Goal
6 3, as stated, is a reflection of a National Standard, and so,
7 Bill or Graciela, if you were more involved in the drafting of
8 this, and so I don't know if we want to depart from that
9 language, or maybe you could provide a little more explanation
10 for why you prefer "a major endeavor" as opposed to "the extent
11 practicable".
12
13 **RUTH GOMEZ:** I am going to have Julian come and sit next to me,
14 because, when we got together to go through these goals and
15 objectives, we were trying to take a look at what would be -- We
16 wanted the fishermen's input, and the government also wanted to
17 have their input, and so there are some changes that are best
18 explained by the fisher, and there are some changes that are
19 best explained on the government's behalf, and so I am going to
20 have Julian come, or give him a mic.
21
22 **MIGUEL ROLON:** Ruth, while he looks for his note, what happened
23 with Goal 3 that Iris is saying is that it follows the National
24 Standards that are obligated for us to follow. The idea is, if
25 you don't change the essence of Goal Number 3, then it's okay.
26 "As a major endeavor", I believe that you are referring to
27 continued health of the fishery resources, and the major
28 endeavor that you want is to minimize adverse economic impact.
29
30 **RUTH GOMEZ:** Correct.
31
32 **MIGUEL ROLON:** Rather than to the extent practicable.
33
34 **RUTH GOMEZ:** Correct.
35
36 **MIGUEL ROLON:** You can say "and minimize adverse impacts" and
37 then it describes the whole thing, or why minimizing adverse
38 impacts, and it will do the same as "to the extent practicable"
39 and "as a major endeavor".
40
41 **CARLOS FARCHETTE:** It can actually read "As a major endeavor, to
42 the extent practicable, minimize economic impacts." You really
43 wouldn't be deleting a word.
44
45 **ROY CRABTREE:** I don't have a problem right now if you want to
46 make that change to it. This is all draft, and Iris is aware
47 it's in there, and if they feel like it's a big thing -- The
48 thing is, if we ever got challenged, the standard the court

1 would hold us to would be what's in the statute and not what's
2 in the FMP.

3
4 Now, it's not totally clear to me what a major endeavor versus
5 the extent practicable -- From a practical matter, it's not -- I
6 don't know exactly what that means, but it doesn't give me a lot
7 of heartburn if you want to use a little different language in
8 there at this point, and the attorneys can circle up. If it
9 does look like an issue, they can let us know down the road.

10
11 **CARLOS FARCHETTE:** Okay. Then we will go ahead then and leave
12 it like that, since it's all draft. Is everyone comfortable
13 with that, because I'm not hearing much.

14
15 **MIGUEL ROLON:** Just go ahead to the objectives.

16
17 **CARLOS FARCHETTE:** Okay. We will keep going.

18
19 **RUTH GOMEZ:** We took a look at Objective Number 1, and we
20 weren't happy with 1a to c, and so we came up with 1d. Before
21 we go any further, what we did was we, in the majority of these
22 revised objectives, we liked some language in one, and not all,
23 and we liked other language in another, and so the majority of
24 these are a combination of 1a and 1b. Some of them we didn't
25 like at all, and so we got rid of it in its entirety, and so I
26 don't know if you can shrink it, so you can see 1a, b, and c.

27
28 **MIGUEL ROLON:** What you are doing, Ruth, is that you scratched
29 1a through 2b and then you want that paragraph, or do you want
30 to add a 1d after 1c?

31
32 **GRACIELA GARCIA-MOLINER:** Let me give a little bit of history of
33 this. Remember that you had requested that these objectives
34 from the two sources that you had seen in the previous two
35 council meetings, from the IPT and from the Pew Charitable
36 Trusts, be merged together, and so they are under Objective 1
37 under the same topic, to ensure that you have optimum yield,
38 achieve optimum yield, and so on down the line.

39
40 The language, as we had talked about the last time, is
41 reflecting the same thing in the three different objectives, and
42 so the council needs to give us direction like this of what
43 language you don't want to see, but what do you want to convey
44 to the IPT so that they can develop the rest of the FMP based on
45 your objectives?

46
47 She is going to be looking at deleting language that is
48 repetitious and creating the new language, if that's the case,

1 in terms of when they are read and adding a new objective, and
2 so everything that you've seen before, in this case, is gone and
3 presented with a new objective for optimum yield. You don't
4 have to keep them all. This was just a first attempt at
5 drafting goals and objectives.

6
7 **MIGUEL ROLON:** Graciela, my question was still more basic than
8 that. Who scratched that? I believe that's your draft.

9
10 **RUTH GOMEZ:** That's us.

11
12 **MIGUEL ROLON:** Okay. Then the only question I have is do you
13 the red paragraph to substitute all of that or do you want to
14 add 1d? According to what you have there it's kind of unclear,
15 and so you can please let us know?

16
17 **RUTH GOMEZ:** For the U.S. Virgin Islands, we want 1d to be our
18 goal and objective for Number 1.

19
20 **GRACIELA GARCIA-MOLINER:** So it would just become Objective 1?

21
22 **RUTH GOMEZ:** Correct.

23
24 **MIGUEL ROLON:** That's the point, that you delete the 1d and then
25 Objective 1 is to achieve blah, blah, blah.

26
27 **CARLOS FARCHETTE:** Julian.

28
29 **JULIAN MAGRAS:** In this Objective 1 that we want for the U.S.
30 Virgin Islands, we actually took some of the language out of 1a,
31 and we took some of the language out of 1b, and we created what
32 here now is 1d, but we want that to be Objective Number 1 for
33 the U.S. Virgin Islands.

34
35 Like Ruth was explaining, we sat down and we went through the
36 different languages, and we weren't comfortable with how some of
37 the language was written, and so we sat down with the
38 Commissioner and we went over everything, and we created what we
39 wanted to see as our objectives, but we did use, in almost every
40 case, language that was already present, but we just changed a
41 few words that makes a big difference in how we see the language
42 presented.

43
44 For right now, our objective for Number 1 would be to achieve
45 optimum yield in the utilization of the federal fishery
46 resources to include the benefits of food production,
47 recreational opportunities, and protection of marine ecosystems,
48 minimizing the impacts to non-target species. That would be our

1 Objective Number 1.

2

3 **CARLOS FARCHETTE:** Roy.

4

5 **ROY CRABTREE:** Yes, and I think all of us are in agreement with
6 what you've got in Objective 1d, but just understand that, for
7 example, the Objective 1c that we're striking out, we still have
8 to do that, because it's a National Standard in the statute, and
9 so whether it's a goal or an objective of your FMP or not, we
10 still have to prevent overfishing and rebuild overfished stocks
11 and achieve optimum yield on a continuing basis, because it's a
12 requirement of the Act.

13

14 **MIGUEL ROLON:** Graciela, if we write Objective 1d added to all
15 the other things that we scratched, will that be okay, in terms
16 of the language capturing the essence of what we need to do?

17

18 **GRACIELA GARCIA-MOLINER:** There was an overarching goal that was
19 presented previous to that that basically just said to prevent
20 overfishing, et cetera. These are very repetitious, one after
21 the other. You really have to clean it up.

22

23 **MIGUEL ROLON:** That's my point, and that's why we -- In the case
24 of the objectives, what we want to make sure is that the
25 language that we have encompasses what we need to do, and then
26 we can eliminate the repetition, but you have to also be careful
27 with eliminating something that is already a mandate, like
28 preventing overfishing.

29

30 **JULIAN MAGRAS:** You see, in that case, then Objective 1c should
31 have never been standing out there by itself. It should have
32 been included in a or b, as part of preventing overfishing, but
33 it is standing out there as an objective by itself, leaving a
34 and b totally different, and so what we did is we took what was
35 there and we created 1d.

36

37 If you want 1d to mention something about preventing
38 overfishing, I think that you guys should add that to it, but
39 just to have prevent overfishing, rebuild stocks, and achieve
40 optimum yield on a continuing basis, I think we're already doing
41 that. That is why we have the annual catch limits and all the
42 different rules in place.

43

44 **MIGUEL ROLON:** Most of the things that we have in the goals and
45 objectives, we already have been doing that since the get-go.
46 It's just that we want to put it now on the screen and on paper,
47 but the other thing about objectives that you have to be careful
48 with is that the objectives have to be measureable. Whatever

1 you write there that is not measureable, it should not be an
2 objective, and so you have to be mindful of that part.

3
4 I think, Mr. Chairman, that we won't be able to do this the way
5 that we're doing it now. Probably we should allow Graciela to
6 meet with Ruth and try to merge them, so maybe tomorrow we have
7 a better picture of what is it, and maybe we can send it to
8 everybody, but we're not going to go anywhere with this.

9
10 **GRACIELA GARCIA-MOLINER:** Remember that there are goals above
11 all of this, and one of the goals says to prevent overfishing
12 while achieving, on a continuing basis, the optimum yield.
13 Before that, there is an overarching goal that would be the
14 introduction to the FMP, which actually states the overarching
15 goal of each of the island-based FMPs is to ensure the continued
16 health of fishery resources occurring in waters surrounding each
17 of the Puerto Rico, St. Thomas/St. John, and St. Croix Exclusive
18 Economic Zone within the context of the unique biological,
19 ecological, economic, and cultural characteristics of those
20 resources and the communities dependent upon them.

21
22 Then you have the Goal Number 1, which they kept the goals as
23 they are, and then you go into the objectives. What they have
24 done is that they have taken away the repetitiousness of the
25 objectives and come up with what should be there, I assume,
26 because it says "USVI", that it's both St. Thomas/St. John and
27 St. Croix.

28
29 If you go through this and look at what they have deleted as a
30 suggested language, that is exactly what we would want from the
31 council members, to tell us which of these objectives you want
32 to bring into the FMPs.

33
34 **MIGUEL ROLON:** That's provided that all of the members have a
35 photographic memory. None of them have been able to memorize
36 the document that we sent to them, or even read it. Otherwise,
37 we would have a very lively discussion at this time over all of
38 this.

39
40 If we continue this discussion and the council agrees with the
41 suggestion -- Because these three fellows, Julian and Ruth and
42 others who participated, they put a lot of work into this. They
43 put a lot of thinking into this, and so, perhaps if we go
44 through the whole red areas and then come back one-by-one, we
45 can dispose of it, but, at this time, Graciela, what I would
46 like to hear from you is that if the red language is the same as
47 what we had before, in other words, eliminating the repetitious
48 language that you mentioned before. If we can do it through

1 this process, fine. If we need more time for you guys to sit
2 down, especially with Ruth and Julian, and figure this out, the
3 better, but --

4

5 **CARLOS FARCHETTE:** Ruth.

6

7 **RUTH GOMEZ:** I just need to say something. At the last council
8 meeting at the Buccaneer, we were told that we failed to do our
9 homework and that we kept coming to these meetings and we didn't
10 take a look at the documents and we were unprepared and we were
11 prolonging this process.

12

13 We went home, and these gentlemen gave up their fishing day and
14 met with the Commissioner and myself to do exactly what we were
15 asked to do, which was go and come up with goals and objectives
16 for the U.S. Virgin Islands. It was a failure on whoever's
17 part, and I am not pointing any fingers, that all of these
18 prerequisites weren't given to us, so that when we went home to
19 do our homework that we didn't do it with all the information
20 that we needed or all the prerequisites we needed. This is what
21 we were asked to do, and this is what we came here with.

22

23 **CARLOS FARCHETTE:** No, it was not determined to be a failure.
24 The Commissioner requested more time, because she didn't have a
25 chance to review it.

26

27 **RUTH GOMEZ:** Regardless, Carlos, we came back with our goals and
28 objectives, like we were asked to do, and now we're being told
29 that maybe we didn't have all of the information and there are
30 certain things or specific language that needs to be in there,
31 right?

32

33 That is just not acceptable to me, and this is me personally.
34 We made time. We did our homework, and we came back prepared
35 with goals and objectives that we felt were suitable or
36 pertinent to the U.S. Virgin Islands fishery.

37

38 **CARLOS FARCHETTE:** Miguel.

39

40 **MIGUEL ROLON:** That's exactly what I was saying before, and
41 that's why I offered, because all of you said that Graciela and
42 you meet together so that all of this will not be wasted, and I
43 believe that most of the red stuff that you have there is
44 already something that the council can adopt easily.

45

46 Then, for the other things that you're referring to, what are in
47 the National Standards and all of that, Graciela has all of
48 that, and so, rather than keep discussing this, I suggest that

1 we allow Graciela and Ruth and Julian to sit down with this and
2 make sure that the document that we'll be discussing tomorrow
3 will add or will include all of your work and all of the
4 concerns that any of the council may have.

5
6 **CARLOS FARCHETTE:** Well, wait a second, because I read these
7 documents, and I did my homework, and I highlighted those that I
8 thought were important, but, yet, St. Croix was not involved in
9 you all's meeting with the Commissioner, and so I don't know how
10 this took place without St. Croix's involvement. Bill.

11
12 **BILL ARNOLD:** Just a quick reminder that we're preparing three
13 fishery management plans. Each will have its own goals and
14 objectives that can be unique to that plan. They can be
15 identical if you want them to be, but they don't have to be
16 identical among the three FMPs. They should be tailored to that
17 particular fishery management plan.

18
19 Puerto Rico may have some objectives, and maybe not, but they
20 could that are different from the objectives that St. Thomas/St.
21 John has or that are different from the objectives that St.
22 Croix has.

23
24 **CARLOS FARCHETTE:** Okay. Miguel.

25
26 **MIGUEL ROLON:** So do you want to do a little bit more today and
27 then tomorrow come and finish this? You can bring the St. Croix
28 concerns, and you have the St. Thomas/St. John USVI, and then
29 Graciela can give you some ideas of what we have.

30
31 **CARLOS FARCHETTE:** One second. What you're saying here, Bill,
32 is that Puerto Rico will have their own goals and objectives and
33 review what they see and what they like and St. Thomas/St. John
34 will review, which they have there in red, and then St. Croix
35 has to come up with their own goals and objectives of what they
36 see or would want to change on each?

37
38 **GRACIELA GARCIA-MOLINER:** That's why I asked, because, at the
39 top of the document, it says "USVI goals and objectives", but
40 that's the idea, that you are separating. You are doing this
41 for each island separate, and so Puerto Rico will -- If they
42 didn't like any of these objectives and they came up with a new
43 list, then that would be brought to the council and to the IPT
44 for discussion.

45
46 If St. Thomas/St. John decided that this is what they want,
47 that's what they are bringing to you, and so now, with your
48 concern, yes, you can go back and get the St. Croix objectives

1 figured out.

2
3 **CARLOS FARCHETTE:** Right, and, if you scroll all the way down,
4 you're going to see a Puerto Rico goals and objectives, and so
5 that means that that was done already?

6
7 **GRACIELA GARCIA-MOLINER:** No, we gave you one set of goals and
8 objectives and said, in the first or second paragraph over in
9 the draft document that we gave you, that these could be the
10 same, but they didn't have to be the same.

11
12 **CARLOS FARCHETTE:** But, if you scroll all the way down, you're
13 going to come up with a document that says --

14
15 **GRACIELA GARCIA-MOLINER:** No, because the only group that has
16 brought this to the table that changes what you have as the
17 draft document of goals and objectives is Ruth right now.

18
19 **CARLOS FARCHETTE:** Roy.

20
21 **ROY CRABTREE:** This is one of the reasons we need to get this
22 stuff written down and come back to the next meeting and have
23 three actual management plans written down in front of us,
24 because they're exactly right. The goals and objectives can be
25 tailored for each FMP, and they don't have to necessarily be the
26 same. I guess they could be, but that's part of the problem in
27 the way we're coming at this right now, is we don't have three
28 different plans we're looking at, and everything is getting
29 mushed together.

30
31 Now, I don't have any real problems with any of the things that
32 Ruth has put up there, in terms of the content of it, but I
33 wouldn't presume to tell you how to tailor this. I think you
34 guys are going to have to figure that out.

35
36 **MIGUEL ROLON:** I don't think that we're going to go anywhere
37 discussing among ourselves issues that we have already
38 discussed, but let me see if this is okay with everybody. What
39 Graciela did was to merge the two documents that we received at
40 that time, at the last meeting in June.

41
42 Then the Commissioner requested more time, so they can -- They
43 indicated it was so the USVI can look at it and then come up
44 with their recommendations, and they did that already. We now
45 are saying that we can divide the goals and objectives into
46 three areas, which is the logical thing to do, and the goals
47 should be more or less the same for all the areas. You want
48 motherhood-and-apple-pie for everybody, but the objectives may

1 change from St. Thomas/St. John and even some of the goals and
2 then St. Croix.

3
4 Probably what we should do is allow the staff to work with St.
5 Croix. St. Thomas/St. John already did your assignment. Then
6 we can have three documents, the goals and objectives for Puerto
7 Rico, because we only have one here, the Federal Fishery
8 Management for Puerto Rico Goals and Objectives, which is what
9 Roy just mentioned.

10
11 Then you will be able to -- All of you will be able to have a
12 document that you can look at it. I propose that we have this
13 for the December meeting, merged with the other document, and,
14 between here and there, you will have a clear picture of what
15 St. Thomas/St. John goals and objectives should be. We will
16 allow St. Croix to sit down and look at them, too, and Puerto
17 Rico. Who will do that? It will be probably the staff with
18 some key members of St. Croix, St. Thomas/St. John, and Puerto
19 Rico. They all agree, because of the silence, or because they
20 are tired of hearing me.

21
22 **CARLOS FARCHETTE:** Hanke.

23
24 **MARCOS HANKE:** I agree. The only thing, in terms of the
25 instructions that were given to us about the goals and
26 objectives, once Miguel mentioned that some people didn't read
27 them or didn't understand, is that, to Puerto Rico, we were not
28 instructed to bring a different objectives or whatever. I was
29 prepared to get the discussion on the floor, like the usual
30 business, and go from there, and I just wanted to mention that.
31 I think the suggestion that Miguel gave, once I clarified the
32 first part, is the right way of doing it.

33
34 **CARLOS FARCHETTE:** Schuster.

35
36 **EDWARD SCHUSTER:** Director Gomez, reading this here, where
37 Commissioner Henry requested more time, are you speaking on
38 behalf of both islands?

39
40 **RUTH GOMEZ:** St. Thomas/St. John.

41
42 **EDWARD SCHUSTER:** So if you or Commissioner Henry are the
43 representative for the USVI, who is going to represent St.
44 Croix? If we had a meeting -- If you guys had a meeting like
45 this to come up with alternate recommendations here, shouldn't
46 St. Croix be included onto it?

47
48 I can make no recommendations based on the USVI, meaning St.

1 Croix. If they're different island-based management, St. Thomas
2 represents St. John and St. Thomas, and St. Croix stands alone.
3 I cannot make any changes to the goals and objectives and have
4 the council vote on it.

5
6 **RUTH GOMEZ:** What I think we've clarified is that we need to
7 have goals and objectives for each district, and so you would do
8 it no differently than St. Thomas/St. John did. You get
9 whatever fishers you want to get together and you sit down with
10 the Commissioner and you do it no differently. You go through
11 the same thing we did, and you come up with your own goals and
12 objectives. These gentlemen took the time to do it, and
13 Commissioner Henry is not averse to doing it for St. Croix.

14
15 If you really looked at this, yes, this is just a representation
16 of the St. Thomas/St. John District, because it only had fishers
17 from that district there. St. Croix, like Carlos said, he took
18 his time and he went through and he made notes on what he would
19 like to see changed. Then we would have something to reflect
20 the island of St. Croix.

21
22 My suggestion is to make an appointment, just like these
23 gentlemen did. They pushed her, and they got an appointment to
24 sit with her, and they did it. You guys do the same thing, and
25 I am sure she would be more than willing to do so.

26
27 **CARLOS FARCHETTE:** We would probably need to do that through
28 you, since you are the Director of Fish and Wildlife.

29
30 **RUTH GOMEZ:** That's not a problem.

31
32 **CARLOS FARCHETTE:** Okay. Bill.

33
34 **BILL ARNOLD:** I reemphasize that everything we're working on is
35 very draft. Not only do the fishers of St. Thomas, St. John,
36 St. Croix, and Puerto Rico have plenty of input into this, but
37 we still have to take these out to public hearings, and
38 everybody who wishes to come to those public hearings is going
39 to be able to comment on the goals and objectives for each
40 specific island group, and so my suggestion would be that, and I
41 emphasize this, too. These are the council's goals and
42 objectives. You own these goals and objectives. You use these
43 to guide us, your staff and NMFS staff, as they develop these
44 fishery management plans and the environmental impact statements
45 that go along with them.

46
47 You basically a created a list of goals and objectives, and you
48 have placed those into the hands of -- Certainly I commend St.

1 Thomas/St. John for taking those and revising them as they see
2 fit. I think St. Croix should have the same opportunity, and
3 Puerto Rico should have the same opportunity. No opportunity
4 has been missed. Everybody still has it all in front of them.

5
6 I would ask that they review the goals and objectives as they
7 stand and customize them to their specific island and their
8 specific situations and get those suggestions, because that's
9 all they are, because, again, the council owns these goals and
10 objectives, back to the council for council staff to massage and
11 work on. Then, ideally, to provide those to basically the
12 interdisciplinary plan team, who is creating and writing these
13 fishery management plans and their associated environmental
14 impact statements.

15
16 I would suggest, and this is just a suggestion, by maybe October
17 15 or something like that, so that the IPT staff can then
18 incorporate them into the documents that we're going to be
19 bringing back in December, and I think that gives everybody a
20 very preliminary shot at it.

21
22 As our GC, Iris, will remind you, these goals and objectives are
23 fluid. They can be revised or changed or adapted as needed, as
24 we go forward into the future, and correct me if I'm wrong, but
25 I don't think I am, and so it's not like you have established
26 some anchor that you can't pull back out of the bottom. These
27 are just guidelines that we use to make fishery management
28 decisions with some semblance of coherence, and so that would be
29 my suggested plan.

30
31 Everybody has got a shot at it, and the fact that St. Thomas/St.
32 John got an early shot doesn't give them any advantage, because
33 their fishery management plan is separate, and so we're no
34 longer in competition among the islands. We are totally
35 separate. Everybody needs to get really used to that idea. You
36 have a management plan for your federal waters around your
37 island or island group. St. Croix doesn't have to worry about
38 St. Thomas/St. John or Puerto Rico anymore, and Puerto Rico
39 doesn't have to worry about vice versa. Everybody gets to focus
40 on their world and make it their way within the constraints of
41 council and federal laws and guidelines.

42
43 **CARLOS FARCHETTE:** But whatever goals and objectives that each
44 island comes up with, and like Iris mentioned, has to fall
45 within the National Standard Guidelines, right? You just can't
46 come up with any objectives we feel we want to have. It has to
47 fall within the Guideline, right?

48

1 **BILL ARNOLD:** You can't possibly think I'm going to argue
2 against my GC advisor.

3
4 **IRIS LOWERY:** Right, and so anything that you all develop for
5 the island-based FMPs is constrained by the Magnuson Act and the
6 National Standards, as I'm sure I'm not telling you anything you
7 don't know, but that is certainly something to keep in mind,
8 and, as you're developing these goals and objectives, I think
9 that it is, as you've talked about today, a very complicated
10 process, and it may be important to keep in perspective that, as
11 Bill mentioned, these are the guidelines moving forward. This
12 is a draft. It can be changed, and you know the really critical
13 parts are the ABC control rule, the hard metrics that you all
14 were discussing earlier, and this guides that, but you're not
15 setting numbers, and so that's just food for thought.

16
17 **CARLOS FARCHETTE:** Miguel.

18
19 **MIGUEL ROLON:** Can we move forward and just say that Graciela is
20 going to send a copy of the National Standards to the three
21 islands groups? I believe that St. Thomas/St. John is ahead of
22 the pack, and the only thing that we need is to have that
23 document adopted as the St. Thomas/St. John goals and
24 objectives.

25
26 We allow St. Croix to do the same between here and October the
27 15th, and, if Puerto Rico so would like to do that, maybe
28 Ricardo, who is now the delegate, could lead that discussion and
29 have the goals and objectives discussed at your level with the
30 fishers. Nelson, the Chair of the DAP, could also be involved.
31 You can do that via email. If you need any help with the
32 logistics, let me know.

33
34 By October 15, that document should be sent to me, so I can
35 forward it to the IPT, or Graciela, and, that way, by the time
36 that you send that document in during October, the team could
37 put them together and you will have three sections of goals and
38 objectives, one for each area, and that also should be brought
39 to the December meeting. At the December meeting, you will have
40 the document that we discussed before and these three documents
41 of goals and objectives.

42
43 **CARLOS FARCHETTE:** I still think that we're going to need some
44 type of guidance from someone, because I don't want to -- Like
45 the Director just put up some changes, but, right away, they
46 said that it didn't meet National Standard 1, and so we need
47 some kind of guidance that would keep us within those bounds and
48 not just let us come back with a whole bunch of stuff and say,

1 okay, this is out and this is out and this is out and it doesn't
2 meet it and you've got to start over or something like that.
3 Iris.

4
5 **IRIS LOWERY:** If I can clarify my point, my point wasn't that
6 that didn't meet the National Standards. It's just that there
7 is particular language in the National Standard that was
8 changed, and so I was trying to request some clarification for
9 the basis for that. I don't think that that small change is
10 necessarily a violation of the Magnuson Act.

11
12 **CARLOS FARCHETTE:** But take, for example, if what I highlighted
13 and wanted changed violated one standard, then I would be
14 corrected on that sometime during my --

15
16 **MIGUEL ROLON:** In December.

17
18 **CARLOS FARCHETTE:** Okay.

19
20 **IRIS LOWERY:** Right, and so that's how the IPT process works,
21 and Maria and Bill can certainly talk about this as well, but
22 everything does go through GC review, and so we can certainly
23 provide feedback on that.

24
25 **GRACIELA GARCIA-MOLINER:** And the draft that you have received
26 from the IPT actually was part of the IPT discussion, and so
27 these are within the National Standards. I believe that we
28 don't have to cut-and-paste from the National Standards into the
29 objectives, but they have to paraphrase and be included into
30 what the National Standards are.

31
32 **CARLOS FARCHETTE:** Roy.

33
34 **ROY CRABTREE:** The Magnuson Act is a long document, and it's got
35 lots of requirements in it. They don't all have to be in your
36 goals and objectives. Now, if someone comes up with a goal or
37 an objective that directly conflicts with something, like our
38 goal is to promote overfishing, that's going to be a problem,
39 but there are lots of requirements in the Magnuson Act, and they
40 are not going to all be reflected in your goals and objectives.
41 Otherwise, they would go on for a hundred pages.

42
43 **CARLOS FARCHETTE:** Miguel.

44
45 **MIGUEL ROLON:** One more time, we could do what Ruth and the
46 group did. We would send the document that you have already,
47 and we will send you the ten National Standards. Graciela will
48 send that, just to use as a reference, but the document that

1 Graciela sent before took that into consideration, because she
2 did nothing but merging the IPT document with the Pew Charitable
3 Trusts document. The language of those two documents that was
4 merged is really what you need, but I believe that what Ruth and
5 the group did was also to tailor that to the St. Thomas/St. John
6 and the Virgin Islands.

7
8 The mistake probably was that you said U.S. Virgin Islands and
9 St. Croix felt that they didn't participate, but, this time
10 around, between here and October 15, I am sure that the three
11 areas will be able to participate, and so, if you agree with
12 that, let's move to the next agenda item.

13
14 **CARLOS FARCHETTE:** Okay.

15
16 **MIGUEL ROLON:** They need a break for ten minutes.

17
18 **CARLOS FARCHETTE:** Yes, a ten-minute break.

19
20 (Whereupon, a brief recess was taken.)

21
22 **CARLOS FARCHETTE:** Okay. Moving forward, maybe Graciela can
23 steer me the right way here. We are moving to Review Action 1?

24
25 **REVIEW ACTION 1: SPECIES TO INCLUDE FOR FEDERAL MANAGEMENT IN**
26 **EACH IBFMP**

27
28 **GRACIELA GARCIA-MOLINER:** Okay. Maria has a presentation on the
29 Actions 1 through 5, and so we can go through that if you want
30 to see that.

31
32 **MARIA LOPEZ:** Good afternoon, everybody. We're almost at the
33 end of this meeting today, and so I'm just going to be quick. I
34 just want to do a recap of what we have right now, in terms of
35 actions and alternatives for the draft environmental impact
36 statements that are going to be having the actions, some of the
37 actions, that are going to be included in the island-based
38 fishery management plans, and I am not going to get into a lot
39 of details, but I just wanted to tell you where we are.

40
41 Right now, we have five actions. Action Number 1 is the species
42 to manage in each island-based fishery management plan, and
43 Action 2 is the species groupings. Action 3 is the management
44 reference points. Action 4 and Action 5 are the new actions
45 that we are currently developing. It's framework measures and
46 designation of essential fish habitat for the new species.

47
48 This is Action 1, and you guys have already discussed this, and

1 so you preliminarily chose as a preferred alternative, and this
2 is obviously not official, but this is the way that we have been
3 moving forward toward what species are going to be included in
4 on each FMP.

5
6 The way that this was done was through the application of a
7 step-wise process of four criteria to determine the inclusion or
8 exclusion of species in the fishery management plans. The first
9 criteria was to include species that are currently classified as
10 overfished, species that have harvest prohibitions, due to their
11 ecological importance, or species that have seasonal closures or
12 size limits.

13
14 Then, after that, after those species were selected from the
15 remaining species, we excluded species that infrequently occur
16 in federal waters, based on expert analysis, guided by available
17 data. Then the Criterion C was, from the remaining species,
18 include biologically-vulnerable species or species with
19 essential ecological value, as determined by expert analysis.
20 Finally, the Criterion D is, from the remaining species, include
21 economically important species based on a threshold of landings
22 or value and also species that are important as bycatch, as
23 established by expert analysis.

24
25 At the end, the results we have are, in the Puerto Rico, we have
26 queen conch, spiny lobster, all species of sea cucumbers, sea
27 urchins, all species of corals, and sixty-three finfish. Then,
28 of all of that, there is eighteen new species.

29
30 For St. Thomas/St. John, we have queen conch, spiny lobster, the
31 sea cucumbers, the sea urchins, all coral, and forty-seven
32 finfish. There are three new species. For St. Croix, it's
33 queen conch, spiny lobster, sea cucumber, sea urchins, all
34 coral, and forty-three finfish, and there are two new species.
35 This is the results of what species are going to be managed. If
36 you want to see a full list of species, we have it. We can have
37 it ready for you tomorrow if you want to review that, if you
38 want to see that.

39
40 **MIGUEL ROLON:** Maria, they already have it.

41
42 **MARIA LOPEZ:** Okay. The second action is the establishment of
43 stocks or stock complexes in each one of the fishery management
44 units that are going to be in each fishery management plan, and
45 these are draft alternatives. This is what you guys currently
46 have in the documents, in the draft actions and alternative
47 documents, and this can change. I believe the SSC and the DAPs
48 are going to be looking into this, but you already have a

1 preliminary list of groupings that the DAPs and the SSC agreed
2 upon.

3
4 Just as a summary, the first alternative will be no action, just
5 to retain species as currently organized in the FMPs. The
6 problem with that is that you have new species, and those new
7 species have to be put in some group. There is Alternative 2 to
8 not organize the species in the FMU into stock complexes. What
9 that means is they will be managed as individual species,
10 individual stocks.

11
12 Then Alternative 3, which, again, is draft, what it's saying is
13 that you can manage as individual stocks or as stock complexes.
14 They will be managed individually or as stocks, based on one or
15 more of the following, and there are several different things
16 that can be used to make those determinations, and this is
17 basically what the DAPs and the SSC looked at to make the
18 preliminary stock complexes.

19
20 Then I have in there like an Alternative 4, which is other, and
21 that's in there. It can be there or not, and this is because
22 the SSC was also looking into maybe potentially using indicator
23 species.

24
25 Action 3 is to define management reference points. This is what
26 we have right now. This is how we did it last time for setting
27 the ACLs that we currently have. There was an action that
28 established the year sequence for determining mean or median
29 annual landings for each stock and then, after that, the
30 management reference points, and this is a decision that is
31 going to be made between now to the December council meeting.

32
33 This is a new part. The IPT is currently developing the draft
34 of this action, and this is framework procedures. Right now,
35 framework procedures are a class of actions that can be taken
36 that do not require a full amendment to the FMP. Therefore, the
37 management actions can be adjusted within the scope and criteria
38 established by the FMP and implementing regulations.

39
40 This differs from revising management measures through a
41 lengthier amendment to the FMP, and what this means is that we
42 have done -- In the past, we do regulatory amendments or
43 framework actions, and these are actions that we have a list of
44 things that can be done in the FMP that can be adjusted
45 differently, and I will get into some details of how we can do
46 that.

47
48 In this particular action, framework measures are intended to

1 describe future management actions, which will be implemented
2 within a range, as defined and analyzed in the FMPs and
3 associated analysis. If it doesn't fall within what is included
4 in that list, then we have to go through the full amendment
5 process.

6
7 Management measures that can be adjusted through framework
8 amendments include adjustments to the quotas, closures, bag and
9 trip limits, gear rules, and reference point modifications.

10
11 There are two types of framework procedures. We have open
12 frameworks and closed frameworks. Open frameworks address
13 issues where there is more policy discretion in selecting among
14 various management options, and it takes less time than a
15 regular amendment to the FMP. What we have in yellow in there
16 is an example of a regulatory amendment that we did, which is an
17 open framework, for example, when we changed the commercial trip
18 limit for the queen conch in St. Croix back in 2013.

19
20 There are two types of open frameworks. There is abbreviated
21 frameworks and there is standard frameworks. Abbreviated
22 frameworks can be used for things that are more routine, and I
23 don't want to get into a lot of details, and we can certainly
24 talk about that later on, when we are more advanced in this
25 process, but, basically, the abbreviated framework allows for
26 some -- There is a specific list of actions that can be taken,
27 that can be done, through a publication of a Federal Register
28 notice.

29
30 Then there is the standard framework, which is what we
31 traditionally use as a regulatory amendment, and it's the task
32 of the council to specify what actions can be taken under each
33 framework.

34
35 The other type is the closed framework, and these are addressing
36 much more specific factual circumstances, where the FMP and
37 implementing regulations identify specific action to be taken in
38 the event of specific facts occurring, such as closing a sector
39 of a fishery after the quota has been harvested.

40
41 The action's ecological, economic, and social impacts have
42 already been described in the analysis prepared when the
43 framework measure was adopted, and these actions are taken by
44 rule-related notices. This is nothing new. This is what we
45 normally do when we have accountability measures, when we have
46 closures. For example, this year, we're going to have
47 accountability measures that are going to be closing certain
48 sectors of the fishery because an ACL has been exceeded, and the

1 way that this is done is through a Federal Register notice.
2
3 Why are we doing this action? It's because we want to be able
4 to include this process into each one of the new FMPs. If there
5 are things that can be done quicker, we can identify that right
6 now, so we can take advantage of that.
7
8 The current framework that we have right now in the Reef Fish,
9 Spiny Lobster, Coral, and the Queen Conch FMP could benefit --
10 They're okay, but they could benefit from being more specific,
11 to have a little more details. The IPT right now is currently
12 drafting potential alternatives based on what the Gulf and the
13 South Atlantic Councils have as established framework
14 procedures, and so we are using those as our baseline and then
15 we're going to adapt it to our specific situations.
16
17 These are examples of potential alternatives that we are going
18 to be looking into, that we are going to be recommending to you
19 to look at, so we can cover different management alternatives.
20 For example, and this is just an example, we don't modify what
21 we currently have, and we bring everything the way that we had
22 it before, our frameworks that we have in the current fishery
23 management plans.
24
25 Alternative 2 is the base framework that is going to be listed,
26 and I will show you an example of what we have. It's just a
27 list of things that can be taken through a framework action.
28 Alternative 3 is the same thing, but it's a more broad -- It
29 allows for more things to be taken through a framework action.
30 Then Alternative 4 is the narrow, and the reason we're doing
31 this is because we have to have a reasonable set of alternatives
32 to be able to make a decision, so you guys can make a decision.
33
34 For example, in here, the difference between Alternative 2 and
35 Alternative 3 will be that Alternative 3 would allow you to do
36 open frameworks to abbreviated or standard, and also, of course,
37 the closed framework. Then Alternative 3 will not even consider
38 doing an abbreviated form, and just the standard versus the
39 closed.
40
41 This is what we currently have in our fishery management plans,
42 and this is a list of things that can be done through the
43 regulatory amendments, and we have been -- This council has been
44 doing regulatory amendments for a while now on several different
45 things, as I mentioned earlier. For example, when we changed
46 the Bajo de Sico, the closure months, it was done through a
47 regulatory amendment, because it fell under b, seasonal
48 closures.

1
2 When the queen conch trip limit was changed, it was also done
3 through a regulatory amendment, and I am saying this so you
4 understand that this is something that we have been doing
5 before. We just want to bring it to the new fishery management
6 plans, but just include a little more detail, so nothing falls
7 through the cracks, so we are able to go through the process
8 expeditiously and so the things that we can do through this
9 process and whatever doesn't fall into this, then we go to an
10 amendment.

11
12 I don't know if you can see this very well, but this is just
13 what the Gulf Council has as a framework procedure. If you
14 recall from what I said earlier, they have a base Alternative 2,
15 which it says the types of framework that you can use is an open
16 and abbreviated, and there will be a list of things that can be
17 done through. Open standard, which is your traditional
18 regulatory amendment, and then your closed framework, which is,
19 for example, closing or opening a fishery through the
20 accountability measures.

21
22 The important thing about this is to keep in consideration, and
23 even if it's an open framework abbreviated, like if we want to -
24 - It says in here that it requires a letter or memo from the
25 council with supporting analysis. Even if this complies with
26 the MSA requirements, we still have other laws that we have to
27 comply with, and there is an analysis that is going to be
28 needed. We need biological, social, and economic. We still
29 need to comply with other regulations, with other laws, and so
30 even though the process may be shorter, depending on the amount
31 of analysis, it will still take some time, and so those are
32 things to consider whenever we are deciding if we do a framework
33 action or not.

34
35 This is just a summary of the different options that we're going
36 to be looking into for this particular action. What the IPT is
37 going to do, it's going to be tailoring this to what the council
38 already has in the fishery management plan, adding other things
39 that the IPT considers necessary or that can be added in here,
40 for example, permitting requirements, monitoring requirements,
41 et cetera.

42
43 The IPT can bring that back to the council as alternatives,
44 draft alternatives, for you to consider and then the council can
45 revise those and decide if there is something else that they
46 want to change, if they want to proceed, et cetera, and so this
47 should be very straightforward.

48

1 These are the next steps for this particular action. The IPT
2 continues developing the draft alternatives, and this is Action
3 4 of the draft environmental impact statement for each one of
4 the island management areas. At the December meeting, the
5 council can review the draft alternatives and provide input and
6 then make changes if they want to make any changes.

7
8 The IPT, we are working on this, but it just needs some fine-
9 tuning, in terms of what can be included in here or not, and
10 then, just as a reminder, the preferred alternative, what the
11 council decides that they want to do, is what will ultimately
12 become the framework procedure that will be included in each one
13 of the FMPs. Are there any questions about the framework?

14
15 **CARLOS FARCHETTE:** Marcos.

16
17 **MARCOS HANKE:** I like your presentation. It was very sharp and
18 nice. I don't have any question on the content there, but it
19 just came into my mind that those framework procedures are
20 pretty much addressing closures and AMs and things like that.
21 The same approach can be done, for example, if we implemented an
22 alternative report to the lobster fishermen that, due to the --
23 They have pretty much, in the best case scenario, a very good
24 report and create a framework to allow them to allocate more --
25 To increase the ACL or to allocate some of the landings from the
26 previous year, because of that -- Just giving something back to
27 the fishermen using the same strategy of framework procedures.

28
29 **MARIA LOPEZ:** I think as long as -- You can add into the
30 framework, I believe, reporting requirements in there, as long
31 as it's something that has been already discussed and brought
32 into the fishery management plan or into an amendment.

33
34 If this is the first time that we're going to be talking about
35 electronic reporting and it's not in the fishery management
36 plans, then I don't think we can do it, and correct me if I'm
37 wrong, Iris, but I believe we will have to do it as an amendment
38 to the plan. Any modifications thereafter, we should be able to
39 do them through a framework.

40
41 **IRIS LOWERY:** I don't know if I understand exactly the question
42 that you were asking, because I think that -- Were you asking
43 about doing via framework essentially, if all of the ACL isn't
44 caught, then rolling some over to the next year, or are you
45 asking about reporting?

46
47 **MARCOS HANKE:** There is many examples. It's just I see a
48 framework procedure to make the whole system to work, and if you

1 pass the ACL or something happens, you have many tools to play
2 with. What about the tools when we have a major hurricane in
3 Puerto Rico and we have an ACL established and the fishermen
4 couldn't fish for three or four months because they lost the
5 fleet and that ACL is there. It's not because the fishermen
6 didn't fish, but it's just because something like that happened
7 to create a procedure like it is there, but it's giving back to
8 the fishermen in the next year.

9
10 **IRIS LOWERY:** I would have to think about whether that could be
11 accomplished via framework or not. There are certainly ways
12 that some sort of system like that could be set up.

13
14 **MARCOS HANKE:** If you're not sure right now, once you have
15 thought about it and you have the whole idea about it, I would
16 really like to listen about that, because this is one of the big
17 requests from the fishermen, that the tide is always one way.
18 If you can find a way for the tide to go both ways, it would be
19 nice.

20
21 **IRIS LOWERY:** I do think that there are ways that the council
22 can consider setting up mechanisms that might be able to do
23 something along those lines. Basically what the framework
24 provisions are doing is they are going to change things that are
25 already set up in the FMP, and so if you have an ACL set and you
26 get a new stock assessment that indicates that it should be
27 different, then you can change that via framework, because
28 that's already something that's been established in the FMP.

29
30 One thing to keep in mind with the framework procedures are that
31 it is faster than doing a full amendment, but really it cuts out
32 a sixty-day notice period, and that can be important, but it
33 also, in the scheme of how fast things might move, isn't a huge
34 difference. It can be, depending on --

35
36 **MARCOS HANKE:** (The comment is not audible on the recording.)

37
38 **IRIS LOWERY:** The fact that amendments might take two years,
39 there is no requirement in Magnuson that that's the time period
40 that it takes. It's really however long it takes to develop the
41 document and then, at the end of that process, when you're going
42 through all of the approval steps in a framework, you cut out a
43 sixty-day notice period, which really might only end up being
44 thirty days.

45
46 **MARCOS HANKE:** Thank you, and I'm sorry to make the question,
47 but it just came into my mind, and I really want to understand
48 that.

1
2 **MARIA LOPEZ:** This is exactly the information that the IPT needs
3 for things that we can end up including in the framework, and so
4 we're going to take note of that. If this is something that we
5 can include as a framework for the purposes of these fishery
6 management plans, we will do it.

7
8 If you can think of anything else, please feel free to send me
9 an email, and we will definitely look into it. As I said, we
10 still have to do some fine-tuning, and we are using the Gulf and
11 the South Atlantic Councils as the base models, because what
12 they have -- Why are we going to reinvent the wheel when they
13 already have this process, which is very similar to what we
14 currently have. The difference is that they have a few more
15 details, and sometimes the details is what is important when you
16 need to decide if you can go through a faster or slower process.

17
18 This is what we have for frameworks, and then the other action
19 that we're going to be developing to bring to the council in the
20 December meeting is the designation of essential fish habitat.
21 The MSA has a provision, which is known as the EFH, that
22 requires that each existing and any new FMPs describes and
23 identifies EFH for each species that is going to be federally
24 managed, to minimize, to the extent practicable, impacts from
25 fishing activities on EFH that are more than minimal and not
26 temporary in nature, and identify other actions to encourage the
27 conservation and enhancement of that EFH.

28
29 For these FMPs and for these draft environmental impact
30 statements, we have to identify and describe EFH for all of
31 those species that are going to be new into these fishery
32 management plans, and also, for those species that are going to
33 be taken out of the plans, we need to remove those designations,
34 because those are not going to be brought into the new plans.

35
36 Does that mean that there are going to be areas that are -- Does
37 that mean that we're going to lose EFH? We don't know yet, but
38 we also need to consider that the life histories and the
39 distribution of many of the species that are going to be removed
40 from the plans overlap with species that are going to be
41 retained in the plans, and so all of those things we're going to
42 be looking into, and so there is, at least in the Caribbean,
43 there is a lot of overlap in EFH.

44
45 There is also habitat areas of particular concern, and this is
46 optional, and that could be added as alternatives, and so we can
47 definitely look into that.

1 The other thing is that this island-based fishery management
2 plan process coincides with the five-year review of EFH
3 information, and so this a potential opportunity or need to
4 modify the existing EFH or the EFH HAPC designations that we
5 currently have, and so this is very preliminary right now.

6
7 I am just bringing this up. The IPT is going to be working with
8 the Habitat Division of NOAA Fisheries to work to see how we can
9 incorporate the best available science into these new
10 designations, and, Miguel, you had a question?

11
12 **MIGUEL ROLON:** No, but it's just that, Ruth, you wanted to
13 address the essential fish habitat at this time, or is it
14 clarified already?

15
16 **RUTH GOMEZ:** When we were going through the goals and objectives
17 process, one of our clarifications that we needed was EFH. Both
18 Tony and Julian wanted more defined clarification or definition
19 of what EFH is, as it pertained to Objective Number 12.

20
21 **MARIA LOPEZ:** There is a definition of the Magnuson-Steven Act,
22 and I don't know, Iris, if you have it in front of you and if
23 you can read it to us. If you give us a second, we will. It's
24 a provision of the MSA, and we have to identify, as it says in
25 here, identify it for each species that are going to be included
26 in the plan.

27
28 **RUTH GOMEZ:** Can you define it?

29
30 **MARIA LOPEZ:** Iris is going to define it. She has it right
31 there.

32
33 **IRIS LOWERY:** The definition in the MSA is essential fish
34 habitat means those waters and substrate necessary to fish for,
35 spawning, breeding, feeding, or growth to maturity. It's a
36 statutorily-defined term, and it is also the MSA requires the
37 identification of EFH in any fishery management plan.

38
39 **CARLOS FARCHETTE:** Hanke.

40
41 **MARCOS HANKE:** I am very happy that Ruth made this question,
42 because it helped me on the point that I want to raise. The
43 thing is this. In the Caribbean, different than probably Alaska
44 -- If I'm ignorant of what I'm saying, please correct me.

45
46 We have a multiplicity of substrate and habitats and things that
47 are very different and very close by that the fish from one area
48 either use or not use, and the percentage of importance, and

1 this is what I am trying to get to, of each of those on the
2 definition of EFH, and maybe it's because it cannot be measured,
3 is not addressed.

4
5 One of the concerns I have, and I can testify by my experience,
6 and we made a little tryout with some cameras one time and we
7 presented it to you guys, is that, for sure, there is changes in
8 the environment that is not known by the scientific world. It
9 is not described, but it's essential to many species, including
10 juveniles of commercial fishes.

11
12 Those habitats are not described, are not even considered,
13 because, if you go snorkeling there, it's just macroalgae is
14 growing on the top of a reef that was there, but, if you really
15 take care of the place and use cameras and other techniques,
16 there is a lot of little snappers, yellowtail snapper and lane
17 snapper and mutton snapper, and a great variety of species that
18 are living there, and that's for sure a habitat that they use.

19
20 What I get confused with essential fish habitat is that is it
21 essential fish habitat because of their reproduction and they
22 need that and that just that or how flexible the essential fish
23 habitat description is, and I don't know if I make myself clear.
24 This is where I get confused.

25
26 **CARLOS FARCHETTE:** That's kind of confusing. I think, in the
27 U.S. Caribbean, everything is an essential fish habitat out
28 there.

29
30 **MIGUEL ROLON:** Don't say that out loud. They will close
31 everything. Going back to Marcos, through the life history of
32 the animal, we need to ensure that the habitat that is essential
33 for each part of the life history of the animal is conserved.

34
35 For example, you have a grunt that lives in the water column
36 when it's a larvae and it settles near the mangrove area, that
37 is essential fish habitat for the grunt's life stage. Then he
38 moves, and you have to make sure that he has space for feeding
39 and breeding, and so the coral areas are important for the
40 grunts. Outside of the coral areas, when they go to spawn, they
41 have another area that is important. Actually, that's some of
42 the work that was done by Richard Appeldoorn some time ago,
43 regarding the grunts, and you can identify each one of the areas
44 that is important.

45
46 Then you also need an area that you identify for the growth and
47 maturity of those species. The document that encompasses the
48 essential fish habitat for this area is a five-year review that

1 Maria is mentioning on the screen, and I believe, Graciela and
2 Maria, that for 2017 is the time that we have to review it.
3 That's the last year of the five-year cycle that we have to
4 review essential fish habitat.

5
6 **MARIA LOPEZ:** I believe so, yes.

7
8 **MIGUEL ROLON:** Here, Maria and the rest of the group, when we
9 had the essential fish habitat, we didn't have the three island-
10 based FMPs. We have essential fish habitat for the entire U.S.
11 Caribbean, and, now, we have a potential opportunity to modify
12 the essential fish habitat designations based on each one of the
13 areas, so we can focus on those areas.

14
15 **MARCOS HANKE:** I understand that, Miguel. I was expecting the
16 people from the Science Center or anybody to clarify or give me
17 examples. Where it gets confusing to me is that you just
18 described the life cycle of one of the fishes that use the water
19 column as a larvae for their life cycle, and we here don't put
20 too much effort to protect the quality of the water, as a
21 council, and that's essential fish habitat, for me.

22
23 In terms of the same reason that Miguel just explained to me,
24 the whole life cycle has to be protected. If we have a lot of
25 contamination from the rivers and many other reasons, discharge
26 of warm water from a power plant or whatever, we don't really
27 address that, and it's extremely important. Those are the
28 clarifications that I want to be making on the record, in order
29 for us to have a strong, well-informed opinion.

30
31 **MIGUEL ROLON:** If I may, Mr. Chairman. That's also included in
32 the Essential Fish Habitat FMP, and, although it seems that we
33 do not address that and go around the islands discussing
34 pollution and all of that, the Corps of Engineers, the EPA and
35 all of that, have to take into consideration our management
36 plan, and they have to use that for community impacts of any
37 action that you have on the habitat.

38
39 Therefore, we always include in our FMPs the part about
40 pollution, but the action agency, the National Marine Fisheries
41 Service, every time that they have a communication from the
42 Corps of Engineers or any other agency regarding manmade actions
43 regarding any habitat that might be affected, this includes the
44 management plans. These use our management plans to send to
45 other agencies, especially the Corps of Engineers, their
46 comments, and I believe that around twenty to twenty-five per
47 year of the permits that the Corps of Engineers asks for
48 opinions have to do with fisheries, and that's the document that

1 they use.

2
3 **CARLOS FARCHETTE:** That's the concern I have, and it's because,
4 since we can only regulate from outside the three miles, or
5 manage outside the three miles, the state -- Because overfishing
6 is not the number one cause of what's going on here. It's point
7 or nonpoint source pollution, and we really can't tell the state
8 what to do.

9
10 The Army Corps and everything gets involved when you're doing a
11 development on the shoreline or you're doing dredging. Then
12 they get into play, and they use the plans and blah, blah, blah,
13 but normal, everyday stuff, rain and runoff and all of that
14 stuff, is things that we don't have control of, because it's a
15 state issue, and I've always had a problem with that. Marcos.

16
17 **MARCOS HANKE:** I just want to round up my thoughts, and I want
18 to say that, besides analyzing the effect of the water column on
19 one animal, the water column and the sedimentation affect other
20 essential fish habitat, including coral reefs and a great list
21 of others that would be considered under essential fish habitat
22 for multiple reasons, for many different species, and that's the
23 importance that I am trying to bring, that we should be aware
24 that, once we discuss essential fish habitat, that there must be
25 a way that we can do a stronger opinion or discussion to have a
26 true effect on essential fish habitat. That's my concern.

27
28 **CARLOS FARCHETTE:** Graciela.

29
30 **GRACIELA GARCIA-MOLINER:** A couple of things. One, there is a
31 consultation process, and so anything that happens, and it's not
32 only development, but things that go in the water, et cetera,
33 they consult, in terms of essential fish habitat.

34
35 Every time that comes around, NMFS produces a letter stating
36 what species are in the area and what's the essential fish
37 habitat and what's the concern, and it deals with the mitigation
38 process, if you need to transplant seagrasses, et cetera, and so
39 it actually does impact near-shore habitats and actions by the
40 state or the private sector.

41
42 It doesn't have as much strength as some of us would like it to
43 have, but it's part of the consultation process, and sometimes
44 it bears quite a heavy weight on the decision making and the
45 mitigation process, and so that's one thing. Two is we do have
46 all the -- I mean, as much as you can. We started back in 1998,
47 I think it was, with presence and absence basically and just
48 accumulated information on all the larvae and all the juveniles

1 and all the adults that occupy any one of these essential fish
2 habitats.

3
4 The thing with that is that it does impact other agencies also,
5 and so we have been in contact with the EPA, trying to figure
6 out the biological criteria that they use for water quality, in
7 terms of how it impacts habitat, marine habitat, and fish
8 species, including invertebrates, and so it's something that has
9 taken a more and more front line, in many cases.

10
11 The other thing is that it also has an impact from the other
12 side, because runoff and changes in water quality have been
13 brought up, in terms of climate change, but that all comes back
14 to fisheries, and so the awareness of things changing and the
15 environment changing, in relation to what it says when you read
16 Magnuson and you read the Guidelines under ecological
17 conditions, et cetera, is, by necessity, that has to change.
18 The problem is getting the data that you need to determine that
19 it has changed and how that then eventually impacts your fish
20 population, and so it's an extremely important topic.

21
22 **CARLOS FARCHETTE:** Bill and then Marcos.

23
24 **BILL ARNOLD:** Here is an example in application. They wanted to
25 build a liquefied natural gas terminal on the south side of
26 Puerto Rico, and they had to consult. We said, well, you're
27 putting a pipeline here and you're going to build your intakes
28 here and you're going to put them at this depth, and then we
29 used our EFH designations to say we're worried about this and we
30 don't like the depth at which it's positioned and we don't like
31 the rate of intake and we don't like where your pipeline is
32 going. If you moved it over here, it would have less damage to
33 EFH, and if you did this differently.

34
35 It doesn't prevent the project from going forward, but it guides
36 the design of the project, so that it better accounts for these
37 habitats and the species that are dependent upon them. That's
38 really the way it would work. If we didn't have those
39 designations, we might not be able to influence how that project
40 was designed.

41
42 **CARLOS FARCHETTE:** Before Marcos goes, here is another example,
43 and I'm going to refer to St. Croix, but I'm sure it happens on
44 St. Thomas. When we have a malfunction in our life station,
45 we're pumping 1.2 million gallons of sewage outside the reef for
46 two or three days, and all the government can say is, blank
47 happens. Marcos.

48

1 **MARCOS HANKE:** One thing, and excuse my ignorance, but once I
2 read things about EFH, on those designations, for example, you
3 can have a high-rise that is used by a specific grouper to
4 spawn. Besides that high-rise, there is not a lot of things
5 going on on it. It's a cool place. It's a beautiful place, but
6 the main importance is the aggregation of those fish to spawn.

7
8 Opposite to that, you can have a sponge bed at forty feet that
9 some fish go to eat on it and some fish go there to grow on it
10 and some other species, multiple species, use the place for
11 different reasons and have exponential importance in terms of
12 the whole fishery, and those habitats that have a multiplicity
13 of beneficial aspect to the fishery, I don't -- I don't know,
14 but I don't think it's well considered once we decide the
15 designation, and it's usually addressed to a specific question,
16 to a specific species, that, the way I see it, it doesn't have
17 the same effect, beneficial effect, for the fishery as you can
18 identify those areas that have multiple benefits to different
19 species.

20
21 **MARIA LOPEZ:** I agree with you, and, again, the essential fish
22 habitat is going to be identified based on the use of those
23 species and through their different life stages, and so, yes, if
24 it's used for -- I apologize that I don't know the definition,
25 but if it's used for feeding or for reproducing, as nursery, et
26 cetera, it should be considered in there.

27
28 That is pretty much all the details that I can provide you at
29 this point for this action, because we are just starting to
30 develop it, and so the IPT is going to be working with the
31 Habitat Division to come up with what will be something
32 reasonable for here, and definitely you will review this when we
33 come back in December.

34
35 This is going to be also, obviously, in the FMPs. It's going to
36 be a dedicated chapter, and so there is plenty of space for
37 discussion in there, and, again, the development of the island-
38 based fishery management plans provides a really good
39 opportunity to revise what we currently have for those species
40 that are staying in the plans, and so we're looking into that
41 too, to see how that's going to be done and if it can be done
42 through this process.

43
44 I think that's the last of it. If you have any questions, you
45 can send me an email or contact me with anything that you have
46 for any of these actions that we're going to be working with.
47 Thank you.

48

1 **CARLOS FARCHETTE:** Thank you, Maria. Okay. Next on the agenda,
2 we have Data Collection in the USVI with Alexis Sabine.

3
4 **DATA COLLECTION IN THE USVI**
5

6 **ALEXIS SABINE:** For those of you who don't know me, my name is
7 Alexis Sabine. I'm a fisheries biologist with the Virgin
8 Islands Division of Fish and Wildlife located in St. Thomas.
9 Today, we've heard a lot about all of the data that are
10 collected by the Virgin Islands and what that data can be used
11 for, and so now I'm going to talk to you about how we actually
12 collect that data.

13
14 We collect fisheries-independent data as well as fisheries-
15 dependent data, but I'm going to focus on the fisheries-
16 dependent data. We use two techniques for collecting the data.
17 The first is data that is reported directly by the commercial
18 fishers, and that is using the commercial catch reports, or
19 CCRs, as we call them, and these are required for commercial
20 fishers. They must fill out one form for every commercial
21 fishing trip that they take, and they report landings data as
22 well as effort and gear information on these reports. We
23 recently revised and updated these forms, in June, and I will
24 show you the old forms as well as the new forms in a minute.

25
26 The second way we collect data is through port sampling, and
27 this is when Fish and Wildlife staff go out to the ports and we
28 interview the fishers and we get more specific data than what is
29 reported on the commercial catch reports. It's a Division of
30 Fish and Wildlife policy that fishers submit to at least one
31 scheduled port sample every quarter, totaling four for the
32 fishing year.

33
34 St. Thomas and St. John uses one set of commercial catch
35 reports, and St. Croix uses their own form. St. Thomas and St.
36 John actually used two forms. The trap fishers, and so anyone
37 who used fish traps or lobster traps, would report on one form,
38 and all fishers who used any other gear type would report on a
39 second form, and so that's all the fishers using nets, diving,
40 or hook-and-line fishing.

41
42 On the other hand, St. Croix only used one form, and all four of
43 the gear types are located on this one form, and so we had some
44 inconsistency between the two districts, and we revised the
45 forms in order to rectify this difference.

46
47 As I mentioned, in June, we worked with the Science Center staff
48 to revise these forms. We made the changes based on feedback

1 provided directly by the fishers, as well as observations that
2 our staff made when reviewing and entering the data, and the
3 purpose of making these changes was to make the forms easier for
4 fishers to fill out and to understand, as well as to improve the
5 detail and completeness of reporting.

6
7 Here is the new catch report form, and this is the top part of
8 the form zoomed-in, the effort and gear information. This is
9 the form for St. Thomas and St. John, but the form for St.
10 Croix, at this point, is completely identical, and so here we
11 have all four gear types on one form, and so now the two
12 districts are reporting the same information on the same format.

13
14 Here is the landings portion. This is, again, for St. Thomas
15 and St. John. The form for St. Croix is a little bit different.
16 We provide the local names for many of the species, and some of
17 those names are different for each district. The main change
18 here we made was we have one large, comprehensive species list,
19 which is a major change from what it was before. The species
20 lists on the old forms were extremely partial and were lacking.

21
22 This was based loosely on the species that were drafted at the
23 last meeting. We erred on the side of caution for a lot of
24 these, by providing specific species as opposed to groups,
25 because we can always group the species into broader families or
26 groups if we need to, but, if we only had the groups, then it
27 would be difficult or impossible to get more specific
28 information.

29
30 This is a draft. Depending on the species that are finalized,
31 we can revise this, and we decided to do this because we had
32 commercial fishing registration in July which is when all of the
33 fishers renew their fishing licenses, and so we had all of the
34 fishers come together over a period of three days, and it was
35 the perfect time for us to give out a lot of information, since
36 some of this is a big change from what it was before.

37
38 Some of the other changes that we made to this form was we have
39 these two columns here for gear fished. For fishers who fish
40 more than one gear type in a single trip, we now have the option
41 for them to report what specific gear type they used to catch
42 the majority of each species.

43
44 The second new column we have is number of fish discarded. On
45 the old forms, we used to have a box down at the bottom, which
46 asked for number of fish and number of lobster discarded as
47 bycatch, but now we're requesting more specific information, a
48 number of fish discarded for each species, and we made this

1 change because we don't really have a lot of specific
2 information on bycatch, and so we're hoping to get more data on
3 this.

4
5 On the back of each commercial catch report is a biological grid
6 map, and that is for the fishers to mark off the area in which
7 they fish on each trip that they go on. When we revised the
8 catch reports in June, we also revised these biological grid
9 maps. Again, that was based on feedback from the fishers, and
10 so here is the old map for St. Thomas and St. John. Both our
11 staff and the fishers had a hard time reading these numbers and
12 letters. If you can't see that, there are actually numbers and
13 letters in each of these grid codes, and we would have to
14 transcribe these numbers when we were entering all of the data
15 into the database, and so here is the new map.

16
17 We printed it in color, and we increased the text size of
18 everything, and we made a couple of other changes. We labeled
19 some offshore keys and other landmarks as reference points, and
20 we also provided instructions to assist fishers when filling out
21 the maps.

22
23 This is the map for St. Croix, the old map, and, again, the new
24 map. For St. Croix, we also provided the instructions in
25 Spanish, since there is such a large Spanish-speaking fishing
26 community on St. Croix.

27
28 In addition to updating the commercial catch reports and the
29 maps, we have also made a couple of other changes to improve
30 reporting, including installing a number of drop boxes around
31 both districts for fishers to turn in their commercial catch
32 reports, and we have noticed that this is working, and we are
33 getting more fishers reporting in a timely manner, because these
34 drop boxes are installed in locations that may be more
35 convenient than the Fish and Wildlife office is.

36
37 We have also begun mailing out periodic letters to the fishers
38 reminding them to turn in their commercial catch reports and
39 informing them that if they're missing catch reports for any
40 months, and we are aiming to do this every two months during
41 this fishing year.

42
43 The second technique that we used to collect commercial
44 fisheries-based data is port sampling, also known as the trip
45 interview program. The purpose of this program is to collect
46 commercial landings data, which supplements the information
47 reported by the commercial catch reports. We conduct this
48 onsite at ports and fish houses, and we can also conduct it on

1 the fishers' boats and houses.

2
3 We use two methods when doing this. We conduct it on a random
4 basis as well as a scheduled appointment basis, and the data
5 that we collect in this program is entered into the NOAA Trip
6 Interview Program Database, where it can be used for stock
7 assessments and other analyses.

8
9 The specific data that we collect during our port sampling is
10 catch composition by species as well as size frequency data,
11 because we do collect individual -- We collect lengths and
12 weights of individual fish and lobster, and we aim to do this
13 for a complete catch. We also interview the fishers and get
14 fishing effort data, such as the date of the trip and fishing
15 time, as well as gear type and area fished and depth. Some of
16 this information is what is reported on the commercial catch
17 reports, but we ask for it anyway, because it allows us to
18 conduct quality control of the data, and some of this
19 information is to a more detailed level than what is reported on
20 the commercial catch reports.

21
22 As I said, we collect port sampling data on a random basis as
23 well as an appointment basis. The random sampling is preferred,
24 because it eliminates the possibility of bias, both on the
25 fishers' part and on our part, if the fishers don't know that
26 we're going to the ports to sample them that day.

27
28 We conduct this sampling once per week, during the workday, from
29 8:00 A.M. to 5:00 P.M., and we visit one to three ports each
30 day, and so the basic protocol is we'll generate a list of ports
31 and days at the beginning of each month, in advance. On that
32 day, we will send a team of two samplers to the first port on
33 the list. Our staff are quite familiar with what fishers use
34 what ports and what the boats look like.

35
36 We will get to the port, and we will determine if any commercial
37 fishers are out that day. If they are, we will stay at the port
38 and wait for the fisher to return and hopefully obtain a sample
39 from them. If there are no boats out at the first port, we will
40 move to the second port and repeat the process. Hopefully,
41 during the day, we will get at least one sample, but there are
42 days in which no fishers are out or no fishers come back to the
43 ports while we're there, and then we don't get any samples.

44
45 The ports that we target for the random sampling are the ports
46 that have at least 1 percent of landings from the previous
47 fishing year. In St. Thomas, we have six ports, and, in St.
48 Croix, we have five ports.

1
2 Here is the six ports in St. Thomas on the left and the five for
3 St. Croix on the right, and you can see there is some geographic
4 spread of the ports over the islands. At this time, we are not
5 able to conduct the random sampling on St. John, because the
6 time that it would take to get over there is just too great.

7
8 The secondary method that we use for this data collection is
9 appointment-based sampling, and that is when the fishers will
10 call us or come to our office and schedule a sample. We require
11 at least one sample per quarter for each fisher, and this type
12 of sampling is extremely beneficial for us, because it allows us
13 to sample ports that the random sampling efforts miss, and so
14 ports that only a few fishers may use or fishers who return
15 before 8:00 A.M. or after 5:00 P.M. and on the weekends.

16
17 We can conduct after-hours sampling, as long as we have advance
18 notice and we have staff available. This is more convenient for
19 many fishers, because it allows the sampling to be conducted
20 according to their schedules and at a location of their choice.

21
22 Here is a brief summary of our random sampling efforts. We
23 vamped up our port sampling program in October, and so these are
24 the numbers since October. In St. Thomas, we have done thirty-
25 one random sampling days, and that's, again, on a weekly basis.
26 In St. Croix, they've done eighteen samples. They started a
27 couple of months after St. Thomas, due to a lack of staff.

28
29 Since we do visit more than one port in a day, we visited a
30 total of sixty ports in St. Thomas and thirty-three in St.
31 Croix, and so we're averaging roughly two ports every sampling
32 day. Despite the difference in numbers between the two islands,
33 we've gotten exactly thirty-two samples on both islands, and so
34 that average is, roughly 0.5 samples every port on St. Thomas,
35 or one sample every two ports, and, roughly, one sample per port
36 on St. Croix.

37
38 The number for St. Croix is higher, because they will often get
39 multiple samples in a port, and we have noticed that the St.
40 Croix fishers seem to be more consistent with the ports that
41 they use and the times that they return to the ports, whereas,
42 in St. Thomas, we do get a lot of fishers going out on the
43 weekends or early mornings or late at night.

44
45 For the appointment sampling, these are the numbers for St.
46 Thomas. I don't have the numbers for St. Croix up here, since
47 they have only received a handful of scheduled appointments so
48 far, but, in St. Thomas, we have received twenty-one samples,

1 appointment samples, since October, from a total of seven ports,
2 which is great, because four of those seven ports are ports that
3 are being missed by the random sampling efforts, either because
4 they have less than 1 percent of landings or because simply no
5 fishers have returned to those ports while we were there for the
6 random sampling. Hopefully the same trend will be observed for
7 St. Croix once they get more scheduled appointments.

8
9 From those numbers, we can see that the random sampling is
10 great. It collects great data, but it is missing several ports
11 and several fishers, especially in St. Thomas, and all of St.
12 John. Now, they only have a handful of fishers on St. John
13 anyway, but we do still need that data, and we're also seeing
14 that we are repeatedly sampling the same fishers in both
15 districts, because they have habits. They come back to the
16 ports during the workday hours, from 8:00 A.M. to 5:00 P.M.
17 Those are our workday hours and not necessarily theirs, but we
18 are missing a lot of fishers, and so that's why we do need the
19 appointment-based sampling, to get data from more ports and more
20 fishers and to have the data be fully representative of the
21 entire fishery on all three islands.

22
23 Moving forward, in the future, there are some more efforts that
24 we would like to make to collect more efficient and better
25 quality data, and the first is using electronic data collection
26 for port sampling, using digital fish boards, like the ones seen
27 here.

28
29 We're in the process of purchasing some of these, one for each
30 district. It would make our sampling a lot more efficient and
31 could allow us to sample multiple fishers simultaneously. If
32 two fishers return to the port now, one has to wait until we
33 finish sampling the other for their turn, but these would allow
34 us to sample a lot faster if we had two sets of gear. Then we
35 could sample them at the same time.

36
37 We would also ideally liked to have more full-time staff just to
38 be designated port sampling, just to be designated port
39 samplers, and this would be great because, if we had two
40 sampling teams, then we could sample multiple ports on the same
41 day at the same time. Eventually, we would like to get to a
42 point where we can facilitate the fishers reporting their own
43 data electronically, either using a website or a mobile
44 application, and so we'll be working with our friends at NOAA to
45 hopefully make this happen.

46
47 Another thing that we are doing is we're moving towards
48 developing a recreational catch reporting form, since, right

1 now, we don't have a way to document recreational landings. We
2 collect data at recreational fishing tournaments, but that's
3 only a small part of the recreational fishery, and so this year
4 we will be working on how to collect that data and developing a
5 recreational licensing program.

6
7 **CARLOS FARCHETTE:** Alexis, we have a question from the Coast
8 Guard.

9
10 **EFRAIN ROSA:** I have a question with the random port sampling or
11 the regular sampling. Are you guys considering random port
12 sampling? Since your work hours are 8:00 A.M. to 5:00 P.M., I
13 think that would be something that a fisherman that's trying to
14 violate the laws will easily know that they work 8:00 A.M. to
15 5:00 P.M. If I just pull in at 5:30, the likelihood of getting
16 caught would be minimal at that point.

17
18 **ALEXIS SABINE:** That is an issue. In the sampling that we have
19 done, the random sampling, we haven't seen any major violations.
20 Of course, now the fishers know that we are doing the random
21 sampling, generally from 8:00 A.M. to 5:00 P.M., and so there is
22 that possibility, but we don't think that the likelihood is that
23 great for fishers making major violations like that.

24
25 **CARLOS FARCHETTE:** Also, the Fish and Wildlife port samplers
26 don't do any type of enforcement action.

27
28 **ALEXIS SABINE:** That is true, yes.

29
30 **CARLOS FARCHETTE:** We try to keep that separate, so that they
31 can get the cooperation from the fishers.

32
33 **ALEXIS SABINE:** That's it. Those are the two major techniques
34 that we use to collect commercial fisheries-dependent data. I
35 would be happy to take any questions.

36
37 **CARLOS FARCHETTE:** Miguel.

38
39 **MIGUEL ROLON:** Congratulations. It's a very good program that
40 you are monitoring, and I have two questions. Some years ago,
41 the local fishers, actually Julian and some others, were here
42 and they decided to ask to collect information on fourteen or
43 fifteen species rather than the spreadsheet that you used to
44 have in the Virgin Islands. Now the two forms that you have
45 here, I don't think that they have all the species that will be
46 in the management unit, and so the question is -- Because mostly
47 the data that we are going to use to monitor the fisheries, in
48 relation to the ACLs and all of that, will be coming from the

1 local governments. Will there be any opportunity to revise that
2 form accordingly to the new FMPs that will be for St. Croix and
3 St. Thomas?

4
5 **ALEXIS SABINE:** Yes, that is something that we definitely could
6 do. These forms were just the first step. We know that the
7 lists for the management plans are not finalized, but we wanted
8 to go ahead and start the revisions, since it is a much larger
9 species list than previously and since we had commercial fishing
10 registration in July. We wanted to get the fishers used to the
11 new species lists.

12
13 **MIGUEL ROLON:** Did the fishers participate in the selection of
14 the species that have been included in the ticket system?

15
16 **ALEXIS SABINE:** We did consult the fishers. It was more of an
17 informal basis, as the fishers come into our office. That's
18 when we would hit them with all the questions, when they would
19 turn in their commercial catch reports. We would ask them about
20 the revisions to the forms as well as the revisions to the maps.

21
22 **CARLOS FARCHETTE:** Jack.

23
24 **JACK MCGOVERN:** Thank you, Alexis. The commercial catch
25 reports, do the fishermen have to turn in those monthly? Is
26 that correct?

27
28 **ALEXIS SABINE:** They are due within two weeks after the fishing
29 trip.

30
31 **JACK MCGOVERN:** If they don't fish, do they still have to turn
32 in a report?

33
34 **ALEXIS SABINE:** If they don't fish for the entire month, they
35 only have to fill in one report for the month, stating that they
36 did not fish.

37
38 **JACK MCGOVERN:** Okay, and do you know what the compliance rate
39 is with turning in the reports?

40
41 **ALEXIS SABINE:** I don't have current numbers, but, the last
42 fishing year, it varied a lot by month. We had some months
43 where it was as high as 70 percent for on-time reporting, and
44 then there were months where it was as low as 40 percent, and
45 that was usually around the holidays, since a lot of fishers do
46 go off-island in December and January, but, this fishing year,
47 we're hoping that those numbers will be a lot greater, since we
48 do have the new drop boxes around the islands and we're going to

1 be sending out those letters every two months, and we've already
2 seen, since July, that the compliance has improved.

3

4 **JACK MCGOVERN:** Thank you.

5

6 **CARLOS FARCHETTE:** Ruth and then Graciela.

7

8 **RUTH GOMEZ:** I think it's important to note that this fishing
9 year, with Commissioner Henry's approval, there are some
10 repercussions to not reporting on a timely basis. In the past,
11 there was not. We did everything that we could to make sure
12 that the fishermen -- There is a need to comply, and so the
13 fishing year started in July.

14

15 We're only in the month of August, and so it's a bit early to
16 see, but I think, just with some of the modifications and some
17 of the new things that we've done, I am pretty confident, and a
18 lot of that has to do with the fact that the relationship we
19 have with the commercial fishers has improved considerably.
20 There is a lot more conversation going both ways. My staff
21 makes themselves very available to the fishers.

22

23 We have also, very recently, decided that we wanted to have sort
24 of like a port sampling annex to the office, because we're all
25 the way out on the east end of the island. Fish and Wildlife
26 actually secured a space in the Frenchtown Fish House, and so
27 we're going to have contractual help in that port sampling
28 station available to commercial fishers and recreational fishers
29 on a regular basis during the week, during normal work hours,
30 and so I think we've done everything that we can, and we're open
31 to more suggestions to increase compliance and to better the
32 relationship. I think, all around, we're going to fare much
33 better, at least beginning this year.

34

35 **CARLOS FARCHETTE:** Julian and then Coast Guard.

36

37 **JULIAN MAGRAS:** Great job. Actually, just to comment a little
38 bit on what Miguel said earlier, I remember that meeting back in
39 the Carambola in St. Croix, where it was a big back-and-forth
40 and we came up with the fourteen species. From that year to the
41 year that we're at today, where the fishers now are more
42 involved in the entire process, from the earlier meeting that we
43 had where the SSC and the DAPs and the council met earlier here
44 in Puerto Rico, we made a request to Fish and Wildlife, and,
45 actually, Director Gomez was present at that meeting, that when
46 we saw, going to the island-specific plans and the species and
47 the information that's going to be required, we requested, at
48 that time, let's start to make changes to the catch report

1 system.

2
3 Immediately, the staff at Fish and Wildlife jumped on it, and we
4 started not only with them educating the fishermen as the
5 process started, but us fishermen ourselves started to talk
6 about the whole process and how important it is to start to
7 collect the data that's going to be needed to drive the whole
8 entire process, and so great job to Fish and Wildlife and the
9 team.

10
11 Even though they have a mandate that we only have to port sample
12 four times a year, we are encouraging the fishermen to port
13 sample as much as possible, because that data is the actual true
14 data that's needed to get the weights and to get the lengths and
15 to get -- They get a lot more information that the scientists
16 can use in the process that we create a lot of the rules and
17 regulations that come down, and so, for myself and the Fish and
18 Wildlife of St. Thomas and St. John, I say kudos and let's
19 continue to do whatever it takes to make this process work.

20
21 If we have to make changes and add more species, we are in favor
22 of that right now. We have moved a long way from the past to
23 the present, and let's keep moving towards the future. Thank
24 you.

25
26 **CARLOS FARCHETTE:** Coast Guard.

27
28 **EFRAIN ROSA:** Ruth, you mentioned that there were some
29 repercussions in order to enforce this monthly reporting, and I
30 was just wondering what were those, just for my awareness.

31
32 **RUTH GOMEZ:** There is a suspension of license and then,
33 ultimately, you can lose it. Can I just say something? For the
34 guys from St. Croix, it's real important that it's stated that
35 in St. Croix that we have one individual that spends the
36 majority of his time versus doing port sampling, versus St.
37 Thomas. We have a much bigger staff.

38
39 We have added additional staff very recently in St. Croix. In
40 St. Thomas, we have drop boxes in two locations. We put one at
41 the Department of Agriculture, because the fishers in St. Thomas
42 register a little differently than those in St. Croix, and so,
43 in St. Thomas, they have to go and receive one of a three-
44 signature form from the Commissioner of Agriculture, and so we
45 figured it would be easier, when those guys went up there to get
46 that signature, that they could drop their catch reports in the
47 box there. We have one at the Frenchtown Fish House.

48

1 In St. Croix, we have one box. I think it's up at Enforcement,
2 Director Forbes's office, and we're looking at other places to
3 put the box to facilitate the process of increasing the
4 compliance for the guys in St. Croix, and so, St. Croix, we're
5 coming up to speed with you guys. Like I said, we added a new
6 biologist like two weeks ago, and we're going to put on some
7 contractual port samplers on there, and then we're going to just
8 pretty much try to engage in conversation to try and increase
9 our efforts in St. Croix for you guys.

10

11 **CARLOS FARCHETTE:** Thank you. Bonnie.

12

13 **BONNIE PONWITH:** Thanks, Alexis, for the excellent presentation.
14 It's really great to see the work that's going into collecting
15 the data and to hear that the relationship between the industry
16 folks and Director Gomez and your staff is really heartening,
17 because it is a partnership. It can't be done one-sided.

18

19 It takes that level of collaboration to be able to make it
20 successful, and that's a crucial investment, and it just makes
21 me happy to hear that that is happening, and please pass on a
22 word of thanks to the Commissioner for helping to incentivize
23 that compliance, and I'm excited to see what the compliance
24 statistics look like this year, because it sounds like the
25 groundwork has been laid for an even better year this year than
26 last year.

27

28 We have spent a lot of time talking about data and how we use
29 them in the stock assessments, and this is what we're talking
30 about. These are the data we're talking about. The better they
31 are, the more we can manage that uncertainty, the word that no
32 one wants to hear, and, again, this is great. Thanks.

33

34 **CARLOS FARCHETTE:** Tony Iarocci.

35

36 **TONY IAROCCI:** Thank you, Mr. Chairman. Alexis, that was a very
37 well-presented presentation. I was very impressed with the way
38 you presented it and the format of it. Julian pretty much
39 covered a lot of the things that I wanted to say, and Bonnie
40 also, but I do want to say that I remember my first trip to St.
41 Croix and one of my first trips down here, when I went with
42 Willie and Hector.

43

44 Bonnie, you're exactly right. The data that comes out of this
45 port sampling is the true data. It's exactly -- There is no
46 question of what these guys are catching when you have that
47 data. It's right there in front of your face. To bring this up
48 electronically and to get more staff to do this and get more

1 data is -- I am 100 percent behind supporting anything that we
2 can do to do that, and the drop boxes, I think they're a great
3 idea. You're going to get fishermen that are not going to want
4 to drive with those forms, to drop those off, and I just want to
5 say kudos, as Julian says, and great. You guys have come a long
6 way.

7
8 Also, Juan Cruz, definitely I want to publicly say that he has
9 definitely come a long way from the Jed Brown days, and I'm very
10 impressed with you and him, and so I'm going to leave it at
11 that. Thank you and great job.

12
13 **CARLOS FARCHETTE:** Okay. I think the drop box at Enforcement in
14 St. Croix would be a perfect location. The fishermen would
15 really, really like it.

16
17 **RUTH GOMEZ:** One other thing that Alexis forgot to tell you was
18 we've done away with sending it in the mail, you know the check
19 is in the mail and what do you mean that you didn't get it? I
20 mailed it. No longer can you mail it. It's a drop box or you
21 bring it to the office.

22
23 **ALEXIS SABINE:** We do get a lot of fishers asking if they can
24 email us their catch reports, and we are not currently set up
25 for that. It would be great, but I don't necessarily want my
26 inbox flooded with catch reports from all the fishers, and so
27 that's something we could look into.

28
29 **CARLOS FARCHETTE:** Bonnie.

30
31 **BONNIE PONWITH:** To that very point, in the South Atlantic, we
32 just ran a pilot study to see what it would be like to collect
33 data at the onset electronically and then submit it
34 electronically, and the pilot actually was very, very
35 successful, and so we are going to report at the South Atlantic
36 Council meeting -- You get a heads-up on what the report is
37 going to say. It's essentially going to be that we are gearing
38 ourselves up to be able to accept the data from that system on a
39 voluntary basis, and we're planting a seed with the council to
40 ask them the question of do you want to make it mandatory going
41 into the future, as the mechanism.

42
43 This system is completely different. We have learned things
44 from that process that I think would be valuable here, but I
45 think that's a good one to keep a close eye on, so that if you
46 do get to a point where you have fishers that are big computer
47 users that would rather submit electronically, we can take what
48 we learn from that process and go to school on it.

1
2 **ALEXIS SABINE:** That is definitely something that we would love
3 to make happen, and a lot of the fishers are requesting that,
4 especially the younger generation. If we can make that happen,
5 I think that's the ideal scenario for us.

6
7 **CARLOS FARCHETTE:** Ruth.

8
9 **RUTH GOMEZ:** I just want to let you guys know that Alexis, when
10 it came to revising this catch report, I was out within the
11 first two hours. I was like, Alexis, I can't hack it and I've
12 got to go, and so Alexis took it on, and she was the only person
13 in my office that stayed with it. She was on those conference
14 calls with Nancie Cummings and David Gloeckner and the entire
15 crew repeatedly, hour after hour, and so I just would like to
16 publicly just -- Alexis, thanks. She did a great job.

17
18 **ALEXIS SABINE:** You're welcome.

19
20 **CARLOS FARCHETTE:** Okay. Thank you, Alexis, and I hope
21 everybody took notice on the slides that we were going through
22 of the size of those red hind, and that's why I keep pushing for
23 a revision of that ACL, and the olewife is next. I have seen
24 the abundance, and I've seen the size, and I say the same thing
25 for the queen trigger. I have seen that in St. Thomas. I am
26 impressed. St. Croix doesn't have fish that big.

27
28 We are going to make a little change here. We are going to stop
29 here, and then the Developing a Commercial Permit is going to be
30 reviewed tomorrow morning, first thing. What we're going to do
31 here is the Public Comment Period, if there is anybody in the
32 public who wants to take five. Okay. Nobody wants to, and so
33 we will recess until tomorrow morning. Thank you very much.

34
35 (Whereupon, the meeting recessed on August 23, 2016.)

36
37 - - -

38
39 August 24, 2016

40
41 WEDNESDAY MORNING SESSION

42
43 - - -

44
45 The Caribbean Fishery Management Council reconvened at the
46 Vanderbilt Hotel, San Juan, Puerto Rico, Wednesday morning,
47 August 24, 2016, and was called to order by Chairman Carlos
48 Farchette.

1
2 **CARLOS FARCHETTE:** Good morning. We're going to get started
3 here. This is a continuation of the 157th Regular Council
4 Meeting being held at the Vanderbilt Hotel, San Juan, Puerto
5 Rico, August 24. We are going to start our roll call, and I'm
6 going to start on my right with Coast Guard.
7
8 **LT. FAIR:** Good morning. Lieutenant Fair, Southeast Regional
9 Fisheries Training Center.
10
11 **EFRAIN ROSA:** Good morning. Sector San Juan, Enforcement
12 Division, Lieutenant Junior Grade Rosa.
13
14 **BONNIE PONWITH:** Bonnie Ponwith NOAA Fisheries.
15
16 **IRIS LOWERY:** Iris Lowery, NOAA General Counsel, Southeast
17 Section.
18
19 **ROY CRABTREE:** Roy Crabtree, NOAA Fisheries.
20
21 **CARLOS VELAZQUEZ:** Carlos Velazquez, council member, commercial
22 sector.
23
24 **DIANA MARTINO:** Diana Martino, council staff.
25
26 **MIGUEL ROLON:** Miguel Rolon, council staff.
27
28 **CARLOS FARCHETTE:** Carlos Farchette, Council Chair.
29
30 **MARCOS HANKE:** Marcos Hanke, Vice Chair.
31
32 **RUTH GOMEZ:** Ruth Gomez, Fish and Wildlife, DPNR.
33
34 **TONY BLANCHARD:** Tony Blanchard, St. Thomas, council.
35
36 **RICARDO LOPEZ:** Ricardo Lopez, Puerto Rico DNER Fisheries
37 Resource Lab.
38
39 **BILL ARNOLD:** Bill Arnold, NOAA Fisheries, Southeast Regional
40 Office.
41
42 **GRACIELA GARCIA-MOLINER:** Graciela Garcia-Moliner, council
43 staff.
44
45 **VIVIAN RUIZ:** Vivian Ruiz, council staff.
46
47 **MARIA LOPEZ:** Maria Lopez, NOAA Fisheries.
48

1 **KATE QUIGLEY:** Kate Quigley, council staff.
2
3 **HOWARD FORBES:** Howard Forbes, DPNR Enforcement.
4
5 **LOREN REMSBERG:** Loren Remsberg, NOAA Office of General Counsel.
6
7 **JACK MCGOVERN:** Jack McGovern, NOAA Fisheries.
8
9 **YASMIN VELEZ:** Yasmin Velez, Pew Charitable Trusts.
10
11 **HOLLY BINNS:** Holly Binns, Pew Charitable Trusts.
12
13 **ORIAN TZADIK:** Orian Tzadik, Pew Charitable Trusts.
14
15 **TONY IAROCCI:** Tony Iarocci, commercial fisherman.
16
17 **ALEXIS SABINE:** Alexis Sabine, Virgin Islands, Division of Fish
18 and Wildlife.
19
20 **JOCELYN D'AMBROSIO:** Jocelyn D'Ambrosio, NOAA Office of General
21 Counsel.
22
23 **MICHELLE SCHARER:** Michelle Scharer, independent consultant.
24
25 **JORGE CAPELLA:** Jorge Capella, CARICOOS.
26
27 **RICHARD APPELDOORN:** Rich Appeldoorn, SSC Chair.
28
29 **ALIDA ORTIZ:** Alida Ortiz, Outreach and Education Advisory
30 Panel, Chair.
31
32 **JULIAN MAGRAS:** Julian Magras, DAP Chair, St. Thomas/St. John.
33
34 **NELSON CRESPO:** Nelson Crespo, DAP Chair, Puerto Rico.
35
36 **EDWARD SCHUSTER:** Edward Schuster, DAP Chair, St. Croix.
37
38 **MARIA DE LOS A. IRIZARRY:** María de los A. Irizarry, council
39 staff.
40
41 **CARLOS FARCHETTE:** Thank you. Miguel.
42
43 **MIGUEL ROLON:** Thank you, Mr. Chairman. Before we start, we
44 left off with the Development of a Commercial Permit Program for
45 the Snapper Unit 2, but, before that, we have an offer from the
46 Coast Guard, which I believe is positive and a good thing to do,
47 which is to add a Coast Guard member as an ex-officio member of
48 the DAPs, so the Coast Guard will be able to participate in each

1 one of the three DAPs when they meet and just to give an
2 orientation to the group as to what is enforceable and what is
3 not and any other questions they may have regarding the
4 operations of the Coast Guard.

5
6 The way to do that is that we can have a motion, very quick, to
7 add an ex-officio member representing the U.S. Coast Guard or
8 the Coast Guard as an ex-officio member of the three DAPs.

9
10 **MARCOS HANKE:** I would like to move to add the Coast Guard
11 representative as an ex-officio to the three DAPs. My rationale
12 to that, I am going to discuss after the motion passes.

13
14 **TONY BLANCHARD:** Second.

15
16 **CARLOS FARCHETTE:** All right. It's moved by Marcos Hanke and
17 seconded by Tony Blanchard to have an ex-officio member for the
18 U.S. Coast Guard on our District Advisory Panels for all three
19 islands. Any discussion?

20
21 **MARCOS HANKE:** We had a meeting discussing all the possibilities
22 on that. Right now, we are changing from one FMP to island-
23 specific FMPs, and that communication between the DAPs that have
24 the fishermen onboard and the Coast Guard is the one that most
25 of the time we see out there on the water, and I think it's a
26 good example and it's a good effort to coordinate for everything
27 to run smooth and clear for both sides.

28
29 **CARLOS FARCHETTE:** Coast Guard.

30
31 **LT. FAIR:** Thank you, Mr. Chairman. Good morning. If I may, we
32 did brief introductions yesterday, but I think everybody is
33 looking across the table and they see a name plaque over here
34 that says Coast Guard, but you might see a different face pretty
35 much every other meeting. I just want to go ahead and formally
36 introduce myself for the record, now that the DAP has accepted
37 the Coast Guard as a member to all three.

38
39 I am Lieutenant Fair. I work at the Southeast Regional
40 Fisheries Training Center in Charleston, South Carolina, and I
41 just want to say that the body of work that happens in this
42 room, the end result happens in my classroom in Charleston, at
43 the Federal Law Enforcement Training Center.

44
45 I have just been assigned there as the Commanding Officer. I
46 took the job about four weeks ago, and I will be there for the
47 next three years. As we speak about these three island-based
48 FMPs, currently, September 12, I will have a class onboard, and

1 it's all organic Coast Guard members that serve your territories
2 and your areas here that we educate to put back out in the field
3 to conduct the mission, and so everything that happens in this
4 room is a direct impact on what we teach back at the Federal Law
5 Enforcement Training Center, and I appreciate the motion that
6 adds the Coast Guard to the three DAPs, because I think it would
7 be a fantastic relationship to build over the next three years
8 as we move forward to get some of this important work done, and
9 so I just wanted to take a quick opportunity to introduce myself
10 and what my position is, and you'll be seeing a lot of me for
11 the next three years. Thank you.

12
13 **CARLOS FARCHETTE:** Thank you. I think it's very important to
14 have you all on our district panels. I think the fishermen
15 would appreciate that, too. We have a motion. The motion is to
16 include the U.S. Coast Guard as an ex-officio member to the
17 three District Advisory Panels. The motion is by Marcos Hanke
18 and it's seconded by Tony Blanchard. **All in favor say aye; any**
19 **nays; any abstentions. Hearing none, the motion carries.**
20 Welcome aboard.

21
22 **MIGUEL ROLON:** The other item pending, and it's not to create a
23 big, huge discussion about it, but we have SEDAR 46 and the
24 motion from June. Graciela, can you address that?

25
26 **GRACIELA GARCIA-MOLINER:** This is a motion that was pending from
27 the last council meeting, because the SEDAR 46 results were
28 presented then, and it's something that the SSC has taken to
29 other depths and would like to request that the SEDAR 46 be
30 completed after the SSC has made its recommendation to the
31 Science Center, so that we don't drop the ball at this stage,
32 and also the ABC control rule, which I think is a very important
33 step forward, in terms of the council's workings.

34
35 It's to either to reword it in another way or to request from
36 the Science Center that we don't lose track of finishing up
37 SEDAR 46, because they do have to allocate resources in order to
38 complete what the SSC has requested, and so it's an important
39 issue.

40
41 **MIGUEL ROLON:** Bonnie, do you have any comments, or Richard?

42
43 **BONNIE PONWITH:** Thank you, Mr. Chairman. What I would like to
44 do is make sure that Dr. Appeldoorn has a chance to take a look
45 at this and make sure it comports with his notion of where we
46 are in the process. I agree that we certainly want to bring the
47 assessment to a close and be able to get advice out of that,
48 but, again, it brings us back to the ABC control rule. The ABC

1 control rule is an important step in being able to actually use
2 the results of that stock assessment.

3
4 Per our discussion yesterday, the SSC's version of the ABC
5 control rule has a stipulation for what they would do without a
6 defined P^* from the council, and so I think, from that
7 standpoint, we are in good position, but I would defer to our
8 SSC chair to help make sure we're aligned to be able to do this
9 and actually have sequenced the steps we need to go through for
10 the ABC control rule to covert those results into advice.

11
12 **RICHARD APPELDOORN:** Without the adoption of the new ABC control
13 rules, I can tell you there is not much the SSC is going to be
14 able to do with what we are locked into at the moment, and a
15 number of these issues were brought up yesterday in the
16 discussion, and so we have new data coming in, from the Virgin
17 Islands in particular, but the nature of that data has changed.

18
19 Not only is it species-specific, which is good, but it's coming
20 from a fishery that, at the moment, is not operating at its full
21 potential, due to the economic climate. Therefore, the catches
22 that are going to be available to us are not going to be useful
23 for setting an OFL stipulation or an ABC under the existing ABC
24 control rule that's in place now. Without the new ones, we
25 don't even have the option of going and saying, hey, we think
26 this is in fact underfished and it should be set higher.

27
28 We really would be locked into the old data, and so we wouldn't
29 be able to take advantage of the new information that we have,
30 and, looking at what was being presented to us last week at the
31 SSC, I would hazard a guess, and it is a guess, but I am
32 optimistic that all three of those species would probably be
33 things that would have the potential at least of falling under
34 Tier 3, and so it's not just a question of getting us to looking
35 at a situation where, if we think there is underfishing going
36 on, or not overfishing going on, that we could raise OFLs, but
37 we would actually be in a situation where we could actually get
38 an estimate of what those might be much better than what we
39 would do through expert opinion. From that perspective, if we
40 really want to move forward with this, we need the tools to be
41 able to do that.

42
43 **CARLOS FARCHETTE:** Bonnie.

44
45 **BONNIE PONWITH:** Thank you. That's really helpful, and just a
46 follow-up question on that. You gave a presentation on the ABC
47 control rule, based on the work that the SSC has been doing on
48 this, and, in your mind, is that control rule essentially the

1 SSC's advice to the council, or is that a progress report on
2 where you are so far?

3
4 If it's just a progress report, it implies the SSC needs to meet
5 again to talk about it more, but if it actually is the final
6 advice of the SSC, then it puts it into a position where it's
7 something that is ready for council consideration, and that
8 would be the only remaining step to be able to move into
9 actually applying that control rule.

10
11 **RICHARD APPELDOORN:** Our feeling is that that's the final
12 product that we would like to put forward for adoption.

13
14 **BONNIE PONWITH:** Given that, Mr. Chairman, the council has made
15 it clear that they're not comfortable making a decision on
16 assigning a P* value, and so I think that was made abundantly
17 clear yesterday, but, again, the SSC has done an excellent job
18 in the development of that ABC control rule, to have a solution
19 for if that piece of information is missing by applying a scalar
20 to account for that, and so, from that standpoint, and given Dr.
21 Appeldoorn's assessment of the state of readiness of that ABC
22 control rule, is revisiting that ABC control rule at the council
23 level for approval something that the council would entertain?

24
25 **CARLOS FARCHETTE:** Iris.

26
27 **IRIS LOWERY:** I would just caution also that, at least for
28 purposes of NEPA, the council does need to consider a range of
29 alternatives, and so I don't know if there is a way to move
30 forward with some sort of maybe preliminary selection, while
31 still leaving open a range of alternatives.

32
33 **CARLOS FARCHETTE:** Roy.

34
35 **ROY CRABTREE:** Yes, because we're going to have to do an
36 amendment, and we're going to have to have alternatives for
37 control rules. Then, if we're going to choose a risk level,
38 we're going to have to evaluate alternative risk levels, and so
39 what we need you to do is take your draft control rules and
40 apply them to these assessments and do it for a range of risk
41 levels and go through the whole process and come back to us and
42 present it all to us and tell us this risk level gets you this
43 and this risk level gets you this. Give us all of that, and
44 then we'll have a basis to make some decisions about these
45 things.

46
47 Then we will go through an amendment that analyzes all of that
48 and puts the new ACLs and things in place, but I come back to it

1 that I don't know how we can be expected to pick a risk level
2 just out of thin air. We need some analysis and some basis to
3 do that, and we're going to have to evaluate a range of
4 alternatives, and so you've got your draft control rules. Take
5 them back and apply them to these and give us a range of what
6 came out.

7
8 If 50 percent risk is what you choose, here is what it comes out
9 to. If you went the other extreme and chose something really
10 low, like 10 percent, here is where it would be. Then we would
11 have some basis for deciding those are the bookends and where in
12 all of this does it look like.

13
14 **CARLOS FARCHETTE:** Rich.

15
16 **RICHARD APPELDOORN:** I don't have a problem with that, as long
17 as we're cognizant of the timeframes that we're talking about.
18 The application of the model still depends on the final tweaking
19 that the Southeast Science Center was requested to do, and so
20 the timeframe in which they can do that I guess is up to Bonnie
21 and her staff, for starters.

22
23 Then we can look at the models that we've been looking at now,
24 which are, with the exception of queen trigger in St. Thomas and
25 lobster in St. Thomas and St. Croix -- Some of those species are
26 not on that.

27
28 Secondly, before the control rules are formally adopted, we can
29 certainly go test them, but we would be testing with a species
30 that we have. If we want to do species that are not of the six
31 that were just looked at, then that's probably going to require
32 another SEDAR assessment process to do the species that you want
33 to have as priority, to get the biological backgrounds that we
34 need to put into the model, and so that's not a trivial thing to
35 do.

36
37 Then the final step would be, as we requested yesterday, the SSC
38 would have a workshop on how to use the life history and
39 susceptibility information to codify how it's going to deal with
40 information dealing with its basically buffer estimations for
41 the variance approach, and so all of those steps have to happen
42 before you're going to get a really good idea of how much the
43 risk of overfishing that you're willing to accept, that P*
44 value, how that's going to affect it, but, the sooner we start
45 on that process, the sooner you will have that information
46 before you.

47
48 **ROY CRABTREE:** I think, for right now, you focus on the species

1 that we've already looked at. Then, if there's another SEDAR
2 down the road, we'll deal with that then. I don't know what the
3 timeline for doing this is, because I haven't heard from Bonnie
4 as to what timeline it would take to run through these various
5 things, and so I guess that will have to be worked out, but it
6 will take whatever time it takes, but I think that's what, at
7 least for this first round, with something new, that's what we
8 need to see to be able to make some decisions. Then it seems to
9 me that this will get easier as everyone grows familiar and we
10 have some experience using these types of models and this type
11 of practice.

12

13 **CARLOS FARCHETTE:** Bonnie.

14

15 **RICHARD APPELDOORN:** If I could just add to that. Certainly the
16 fastest thing or the quickest thing we can do is the control
17 rules have minimum levels of variance that needed to be applied
18 as you went down that tier to the more uncertain levels, and we
19 could certainly just use those minimums. We could say, at the
20 minimum, this is what the impact of your P* value would be. To
21 the degree that those might expand because of life history
22 considerations or vulnerability considerations -- It could be
23 more than that, but we would say it's going to be at least this.
24 If we get through our workshop that we've requested and develop
25 a system of how to deal with the vulnerability and
26 susceptibility and whatnot, we can give you better guidance.

27

28 **CARLOS FARCHETTE:** Bonnie.

29

30 **BONNIE PONWITH:** Thank you, Mr. Chairman. Just as a point of
31 clarification, when we're talking about a range of alternatives,
32 we're not talking about a range of alternatives for P*, but
33 we're talking about a range of alternatives for the ABC control
34 rule itself, where the ABC control rule that you presented is
35 one alternative and then there are at least one or two other
36 alternatives to that to consider in the decision of which one we
37 accept, and do I have that right?

38

39 **CARLOS FARCHETTE:** Roy.

40

41 **ROY CRABTREE:** Well, I am talking about runs at different P*.

42

43 **BONNIE PONWITH:** What I would like to do is separate the
44 decision on P* as a completely separate decision, to get
45 clarification from the council on what it takes to approve the
46 actual framework, the ABC control rule. Is looking at this
47 control rule and approving it enough, and then having a range of
48 alternatives for P* what we're looking for, or do we actually

1 have this ABC control rule and then have to have a range of
2 control rules to choose from to be able to make the decision
3 that this is the control rule that the council chooses to
4 select?

5

6 **CARLOS FARCHETTE:** Blanchard.

7

8 **TONY BLANCHARD:** I will agree with Dr. Crabtree. I think we
9 need to look at the ranges, from high to low, so that we have an
10 idea in front of us of what we're looking at and what's the risk
11 factor. That's the bottom line.

12

13 **CARLOS FARCHETTE:** Hanke.

14

15 **MARCOS HANKE:** Just to complement the comments that Tony did,
16 we're missing something that was deeply discussed yesterday, and
17 that is pretty much all the council members expressed that we
18 don't want to do a general rule on this once we manage all the
19 fishes that we manage. We should look at species-specific
20 and/or groupings in which the same growth, same age, same life
21 history and so on, and group them using that logic, something
22 that is clear to us that it makes sense. Otherwise, and I don't
23 want to repeat our discussion from yesterday, because it's
24 already on the record, but this is missing on this discussion,
25 and I'm a little confused.

26

27 **BONNIE PONWITH:** Just for clarity, I am not trying to rehash the
28 discussion that was held yesterday. This is procedural of
29 that's understood, that the council has made it clear what they
30 want to do, in terms of P*, but I am talking about the whole
31 package for the ABC control rule. I am just trying to
32 understand whether we need that rule plus two others to choose
33 from to say this is the rule we want or whether that decision
34 can be made with the information we have in our hands right now.

35

36 **CARLOS FARCHETTE:** Roy and then Bill.

37

38 **ROY CRABTREE:** What we decided yesterday is that the island-
39 based amendment is going to look at the status quo control rule
40 and the Tier 4 control rule. Now, I think what we're talking
41 about, with the outcome of this SEDAR, is the Tier 3 portion of
42 this that that would fall into. That's going to require an
43 additional plan amendment that will look at implementing that
44 control rule and maybe Tier 1 and 2 at that point.

45

46 There will have to be alternatives considered, and we will have
47 to get a planning team with Center people on it to develop those
48 alternatives and bring them forth. We're going to want to look

1 at those control rules, and we're going to want to look at the
2 output from these models and what those control rules give you,
3 and then we're going to want to talk about P* alternatives.
4 What do various ranges of P* give us if we did that?

5
6 Then we're going to implement a plan amendment that will put
7 those control rules for Tiers 1, 2, and 3 in place. We will set
8 up our risk level. Maybe it will be different for different
9 species and maybe not. I don't know, but that's something we'll
10 have to figure out in it, and then it's going to make the
11 adjustments to the ACLs for five species or six, and I can't
12 remember, but we'll presumably implement new ACLs for those
13 species and maybe some other management measures in there,
14 depending on how it goes.

15
16 It will be an amendment to various plans at that point. We
17 probably will put the control rules in place sort of generically
18 across all three islands, all three plans, but then the ACLs
19 will be specific to certain island groups, because I think the
20 way this SEDAR was set up is it looked at some species in one
21 area and not the other area, and so there would be management
22 changes and changes to the ACLs, potentially, for St. Thomas
23 that wouldn't apply to Puerto Rico, but we're going to decide if
24 we want to apply all of these control rules in all three of the
25 FMPs, or maybe we decide that in Puerto Rico we want to have a
26 different risk level than we want to have somewhere else.

27
28 I don't know, but we're going to need to have all of that laid
29 out in front of us, and then we're going to need enough analysis
30 and facts in front of us so that we can make a reasoned decision
31 and say here's why we decided this level of risk is appropriate,
32 and that's the problem with where we are today.

33
34 We could pull a level of risk out and say, okay, we'll take 40
35 percent, but if anyone asks me what is the basis for that, I
36 don't have any idea what the basis for it is, other than it
37 sounds pretty good, and so that's what we need to come in front
38 of us, is an ability to make a sound, rational decision for each
39 of these islands and explain why that's the decision we're
40 making.

41
42 **RICHARD APPELDOORN:** I just want to make clear that the
43 situation you don't want to get yourself into, and you're
44 setting yourself up for this, and so you have to be really
45 conscious about when you have your discussions what you're
46 really talking about, but you don't want to go and say I don't
47 like that level of catch and I'm going to make the level
48 smaller, because then you're really looking at it from the point

1 of the catch and not from the point of understanding the risk of
2 overfishing.

3
4 Now, I understand you want to look at that, because there is an
5 interchange there, and so you just have to be brutally honest
6 with yourself when you finally sit down and say what are we
7 talking about with risk of overfishing and what do these
8 analyses point to in terms of that, that you don't fall into
9 that trap of cherry-picking based on catch.

10
11 **ROY CRABTREE:** I get that, but it's a balance between risk and
12 fishing. If we wanted to say we don't want to accept any risk
13 whatsoever of overfishing, then we would eliminate all fishing,
14 wouldn't we?

15
16 **RICHARD APPELDOORN:** I accept that you understand it.

17
18 **ROY CRABTREE:** So it's a balance.

19
20 **RICHARD APPELDOORN:** That was the only point I wanted to make,
21 and you understand it, and I'm good with it.

22
23 **ROY CRABTREE:** What I am looking for is some way to strike that
24 balance and be able to explain why that's the balance that we
25 think is appropriate.

26
27 **CARLOS FARCHETTE:** Bonnie.

28
29 **BONNIE PONWITH:** Thank you. That was a useful discussion to
30 help understand the steps that need to happen to get to the
31 point where we can actually execute that, and what it leads me
32 to is that there are lots of steps that need to happen before we
33 can revisit OFL and ABC for those species.

34
35 I think that, just from the council's thoughts on this motion,
36 that we would have to do a pretty thorough evaluation and
37 document the steps that Dr. Crabtree just lined out and be able
38 to put a timeframe to it, and it looks like it's not going to be
39 in the foreseeable future that we're going to be able to revisit
40 OFL and ABC for those species if we separate Tier 4 from Tier 3,
41 as a two-step process.

42
43 **CARLOS FARCHETTE:** Bill.

44
45 **BILL ARNOLD:** I thought I understood what we had spoken about
46 yesterday, and now I want to make sure that I do. We have an
47 ABC control rule that has four tiers in it. Richard has said
48 that that ABC control rule is basically in final form, and, as

1 far as the SSC is concerned, is ready to go.

2
3 In Tiers 1, 2, and 3, there are options to use either a P* or
4 another method to determine risk of overfishing. We're not
5 going to get this P* set for a while. We have agreed to that.
6 That is down the road, but that doesn't mean that this ABC
7 control rule can't still be incorporated into the document, Tier
8 1 through 4, as one alternative of the several alternatives that
9 we're going to include in Action 3, and that, in spite of the
10 fact that all four tiers in there, we understand that, at the
11 present time, based upon the data we have, for almost every
12 species, if not every species by island combination, we're going
13 to have to use average catch.

14
15 We are not going to use assessment outcomes, because we don't
16 have those assessment outcomes, and so, even though we have the
17 full ABC control rule in there, we're really going to be focused
18 on choosing between Tier 4a, which is for those species that,
19 however you define it, are unlikely to be overfished or
20 undergoing overfishing, or we use Tier 4b, which is for those
21 species that are likely to be overfished or undergoing
22 overfishing. That's really what it's going to boil down to.

23
24 All of that is ready without P*. We are ready to incorporate
25 that into the draft document that we will bring back to you in
26 December. Along with that will be our old 2010 and 2011
27 Caribbean ACL Amendment control rule, which is really a variety
28 of control rules and a variety of options for dealing with
29 setting, ultimately, annual catch limits, and, within that
30 alternative, there's a whole bunch of sub-alternatives that were
31 accepted as adequate alternatives in the previous amendments. I
32 reiterate that I think we're ready to go with this. We had
33 perfect clarity on it, and it had no dependence on establishing
34 a P* to get this done.

35
36 **CARLOS FARCHETTE:** Roy.

37
38 **ROY CRABTREE:** Except my understanding of what we decided for
39 the island-specific FMPs, and that's what we're talking about,
40 those were going to have Tier 4a and b and no Tier 1 or Tier 2
41 or Tier 3. It's going to be status quo and Tier 4a and b.

42
43 Then, when we come in with the information from the SSC from
44 this new SEDAR and all of that and what we need to look at for
45 P*, when we do the amendment to implement that, we will
46 implement Tier 3, and maybe Tiers 2 and 1, at that point,
47 because all we need for right now in the island-based amendments
48 is really Tier 4a and b, because, as you said, it's landing

1 based, and we were going to implement the other tiers as part of
2 a next amendment.
3
4 **CARLOS FARCHETTE:** Bill.
5
6 **BILL ARNOLD:** Okay. That was my suggestion yesterday for an
7 interim ABC control rule. We don't need to do that. We will
8 get the exact same outcome by using --
9
10 **ROY CRABTREE:** If I could though, that's what we've decided to do
11 yesterday, and I don't want to rehash it, and so that's what is
12 going to go into the island-specific FMPs for now.
13
14 **BILL ARNOLD:** Okay. I didn't know that we had chosen the
15 interim approach.
16
17 **ROY CRABTREE:** You can call it interim or whatever, but we're
18 implementing a control rule that we can use now and that we need
19 for now. When we get the results and can move to Tier 3, we
20 will implement those results, along with the Tier 3 control
21 rule, but that will be in a subsequent amendment or series of
22 amendments, and that is my understanding of what we decided
23 yesterday.
24
25 **CARLOS FARCHETTE:** Coast Guard.
26
27 **LT. FAIR:** Just for a point of clarification, did we actually
28 vote on implementing any of that yesterday?
29
30 **CARLOS FARCHETTE:** Not that I recall.
31
32 **MIGUEL ROLON:** No, you don't have to vote for that. What the
33 council decided was to instruct the staff to do all of that.
34 They will bring it to the December meeting, and then they may
35 vote at that time, when they have the document in place, but
36 you're right that --
37
38 **LT. FAIR:** So that was decided?
39
40 **MIGUEL ROLON:** Yes.
41
42 **CARLOS FARCHETTE:** Bonnie.
43
44 **BONNIE PONWITH:** Then, if Tier 4a and b are separated out from
45 Tiers 1 through 3, and Tiers 1 through 3 are put back into this
46 through an amendment down the road, that means that that can't
47 be done until that second amendment happens, just, again,
48 dealing with the motion that's on the floor.

1
2 **CARLOS FARCHETTE:** Bill.
3
4 **BILL ARNOLD:** It can be done. We would just use average catch.
5 I mean this doesn't say -- It only says to revisit the OFL and
6 ABC, and we're going to be doing that for every species as we go
7 through the new year sequences, et cetera, et cetera. This
8 motion, which was never passed, does not say we want to increase
9 the OFL and ABC. It just says we want to revisit the OFL and
10 ABC.
11
12 It may result, without biasing the outcomes, it could result in
13 increases, because Tier 4 allows for the OFL to be higher than
14 the average catch, and so that option is incorporated in Tier 4
15 as Tier 4a, if it was determined by the SSC, would be my
16 understanding, that spiny lobster and/or queen triggerfish
17 and/or red hind, on any one of the islands, is not likely to be
18 overfished or undergoing overfishing. Then we can apply Tier
19 4a, and so all of this stuff is out there, and, like I said, I
20 thought I had pretty good clarity on this, and maybe I don't.
21
22 **CARLOS FARCHETTE:** Roy.
23
24 **ROY CRABTREE:** The SSC can apply Tier 3 and come to us and say
25 here is what would happen if we apply Tier 3, but none of it is
26 going to be official until this council does an amendment and
27 puts all of it in place, but there is nothing that prevents the
28 SSC from coming in and telling us here's what it would give you
29 and the Center from doing all of the analysis on it. It doesn't
30 have to be in place for us to do that.
31
32 **CARLOS FARCHETTE:** Bonnie.
33
34 **BONNIE PONWITH:** I was looking at the motion, and it was cast to
35 me in the context of the last SEDAR, and so I will amend what I
36 was saying. The application of the results from the last SEDAR
37 can't be incorporated into use for this. It would have to be
38 using the old ABC control rule and using the old landings.
39
40 **ROY CRABTREE:** Why? We have a new SEDAR. We have a new draft
41 control rule. The SSC needs to use the new SEDAR, the Tier 3 in
42 the control rule that they developed, and come to us and say
43 here's what the management advice, based on this, would be.
44 Then we would implement all of that in a new amendment.
45
46 **BONNIE PONWITH:** Not until a new amendment is done.
47
48 **ROY CRABTREE:** We're not going to do anything with the SEDAR

1 without doing an amendment.

2

3 **CARLOS FARCHETTE:** Bill.

4

5 **BILL ARNOLD:** That's down the road. That's in an amendment
6 after the FMPs are in place. To get the FMPs in place, we have
7 to get through Action 3 with their reference points. Action 3
8 can include the new ABC control rule and not the outcomes from
9 SEDAR 46. SEDAR 46 is over here, and the ABC control rule is
10 over here. They are totally separate. We can incorporate this
11 as an alternative without even any consideration of SEDAR 46.

12

13 Now, it is possible that for six species that were analyzed by
14 SEDAR 46 that they could be in Tier 3, if that was in place,
15 because they've got outcomes, but we haven't even, at this
16 point, determined that those outcomes are accepted by the SSC,
17 and so the SEDAR 46 is not finalized.

18

19 Even if it was, it doesn't include any red hind. It includes
20 queen triggerfish only one island, and it includes spiny lobster
21 only on two islands, relative to this motion, and so it's
22 important to keep the SEDAR 46, which really isn't -- When you
23 get right down to it, it isn't in this game. It's separate from
24 the ABC control rule, which is in this game and is available for
25 use. It would just be used with an OFL that was based on our
26 previously used year sequences to develop average catch, which
27 we equated to an MSY proxy, which we equated to an OFL, and that
28 was our start point when we applied our previous ABC control
29 rule.

30

31 **CARLOS FARCHETTE:** This is a pretty good discussion, but these
32 three species are, like I have repeatedly said on the record,
33 are very important to me for particularly the island of St.
34 Thomas. I have been there, and I have seen the catches. I have
35 seen the promised land, and I think that can really change the
36 ACLs, for that island in particular.

37

38 I know what the outcome is going to be for St. Croix. It's not
39 going to change. We don't have the kind of fishery or abundance
40 that they have over there for those three particular species,
41 and so average catches, I am cautious with average catches,
42 because it's really not what can be taken, because they release
43 a lot of the big fish. Average catches are still going to be
44 below the ACL, and so it's not really what can be taken from
45 that, and so I'm kind of concerned with that. Miguel.

46

47 **MIGUEL ROLON:** Remember when I started talking about this, it
48 was not to open the whole Pandora's Box of discussion. I would

1 like to go back to what Dr. Crabtree was saying. Can we just
2 ask the SSC to review this and make a mock-up exercise, if we
3 have this ABC control rule and this is what happening with the
4 information that we have, and then we will have better
5 information to make a decision.

6
7 Then the other point is when can we do that? People are
8 thinking between here and December, and I believe that Richard
9 said that it will take some more time. Also, he said that some
10 of the Tiers 1 through 3 could be done through an amendment, and
11 so my offer is this. Let the staff and Richard and Bonnie,
12 using the discussion this morning, tell us another roadmap,
13 Bill, of what we can do.

14
15 Can we have another meeting of the SSC, or will that be wasting
16 our time? Should we wait until December so we have more
17 elements of judgment as to what are going to be the next steps
18 in this, for the council to make decisions?

19
20 **CARLOS FARCHETTE:** Bill.

21
22 **BILL ARNOLD:** If you want to convene your SSC to do what Roy
23 suggested, which is use the SEDAR 46 outcomes that are
24 determined to be valid, and use Tier 3 to analyze what the
25 outcomes would be and to start working towards some sort of
26 identification of what an appropriate P* would be, you're
27 certainly welcome to do that.

28
29 That is completely separate from what the IPT and staff will be
30 working on to bring you back in December, and, whether that SSC
31 meets or doesn't meet, we will make our progress, and we will
32 bring you a document in December that includes Action 3
33 alternatives, and this is where I need -- I think I've got the
34 guidance I need, but it will only include, as one alternative,
35 Tier 4a and b.

36
37 It won't include the entire new basically acceptable ABC control
38 rule, and Richard has said that. That full Tier 1, 2, 3, 4a and
39 4b ABC control rule requires no additional work, and so whether
40 we include the whole thing or whether we include only Tier 4 is
41 fine with me, whatever you guys tell me to do.

42
43 I honestly don't think it's going to make any difference as to
44 what we bring back in December, and what we bring back in
45 December is only a draft, but at least it's going to be a solid
46 draft that you guys can then start giving us better direction
47 on, as to exactly how you want those alternatives constructed
48 for every action. Not just for Action 3, but for every action,

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CARLOS FARCHETTE: Iris.

IRIS LOWERY: Just to Bill's point regarding setting up the alternatives for this action and the draft island-based FMPs, which really is the draft document that you will be reviewing, I think that, at this stage, it does seem a big premature to be removing the SSC's recommended ABC control rule from that reasonable range of alternatives, and we can certainly discuss this further, but, as a preliminary matter, Bill, I think that that seems like a good idea, to at least include what the council has discussed in addition to the SSC's recommendation.

CARLOS FARCHETTE: Miguel.

MIGUEL ROLON: Bill, if we follow what you just said and Iris, then we should expect a draft document with draft alternatives, including Tier 1 through 4? Is that what you said?

BILL ARNOLD: I can bring you two separate alternatives. One alternative has Tier 1 through 4 and the other alternative only has Tier 4. It's such a draft document that we can pretty much set it up and do whatever you guys tell us to do, because we're going to be coming back in December and you're going to give us a completely new set of directions, based upon this extremely draft document that we're going to present you.

As we discussed yesterday, what we really want to do is give you guys something to sink your teeth into. As I said, we've been working on this for days to years, and I thought it was years, but, regardless, we have talked and talked at tons of SSC meetings and tons of DAP meetings, but we still don't have even the most basic draft document.

All we're suggesting, and this has been the direction that I believe we've received, is to put together that basic draft document, so we have a basic model to work from, but that model is going to probably change a lot.

MIGUEL ROLON: Okay. Mr. Chairman, can we finish this by saying that we will tell the staff to prepare the draft for December, with the two alternatives that Bill mentioned, which are to include all the tiers and -- By the way, every time that we say tier with that, it makes you cry, if you don't have the definition of what it is.

That document, in December, will provide everybody the same page, and that is what Bill has been saying all along, and so

1 can we just stop the discussion here and allow the staff to go
2 back? Then, from there, we can decide what will be the next
3 step with the SSC and all the other stuff that we need to do.

4
5 **CARLOS FARCHETTE:** Sure. What does it take? Is it just for me
6 to say "so moved"?

7
8 **MIGUEL ROLON:** You are the powerful Chairman. You can say to go
9 ahead and do it.

10
11 **CARLOS FARCHETTE:** Go ahead and do it, Bill. I am good to go.
12 I know Tier 1 really doesn't apply to us, but we will look at
13 it, or Tier 2, but I really think -- I keep saying that those
14 three species in St. Thomas, we've got to take a look at that.
15 Those fishermen need to get a break. Roy.

16
17 **ROY CRABTREE:** That's fine, but I mean, in SEDAR 46, they looked
18 at St. Thomas queen trigger and St. Thomas spiny lobster and St.
19 Croix spiny lobster. They looked at some of those species in
20 there, and that's what they're working on. SEDAR 46 is the new
21 information, and that's what they need to focus on and get done.
22 I think that is happening, and I don't think we really need this
23 motion, but let's move on.

24
25 **MIGUEL ROLON:** Actually, the only thing that you have there is
26 just the language, jut to make sure that we understand what the
27 council wants to do between here and December, and I guess that
28 you have done that already.

29
30 **CARLOS FARCHETTE:** Okay. Developing a Commercial Permit Program
31 for the Snapper Unit 2 Fishery Operating in Puerto Rico EEZ
32 Waters, Reconsideration of Draft Scoping Document, who is
33 handling that? Bill. It's all yours.

34
35 **DEVELOPING A COMMERCIAL PERMIT PROGRAM FOR THE SNAPPER UNIT 2**
36 **FISHERY OPERATING IN PUERTO RICO EEZ WATERS - RECONSIDERATION OF**
37 **DRAFT SCOPING DOCUMENT**

38
39 **BILL ARNOLD:** Okay. The idea to create a permit program -- In
40 fact, we have discussed, through white papers and several
41 previous council meetings, a possibility and advantages and
42 disadvantages of developing permit programs for various fishery
43 subsectors throughout the U.S. Caribbean.

44
45 Our original discussions focused on the Snapper Unit 2 fishery,
46 queen and cardinal snapper, in Puerto Rico and the spiny lobster
47 fishery in St. Thomas. Now, at last June's meeting, it was
48 determined by the council to forget about considering, for the

1 present time, a St. Thomas spiny lobster permit program, but we
2 were given the guidance to move forward with consideration, and
3 this is the very formative stages, of a permit program in
4 federal waters for the Snapper Unit 2 fishery in Puerto Rico.

5
6 Now, at the last meeting, I provided a presentation with I think
7 eleven different actions that would constitute roughly a scoping
8 document for development of this permit, and I say roughly a
9 scoping document because, really, the scoping process basically
10 starts out with practically nothing, so you don't bias input,
11 but I feel like you need to provide some guidance, since permit
12 programs are going to be very foreign to the audience that we're
13 taking this concept to.

14
15 We developed those eleven actions to guide the discussion at
16 these scoping hearings. Roy's input on that, very clearly, was
17 you've got too much stuff in here and some of these actions are
18 inappropriate, like setting the fee for a permit and penalties
19 and things like that, and so the guidance from the council was
20 to go back and strip this thing down and really focus on the
21 things that should be considered as alternative approaches to
22 developing a permit program for Snapper Unit 2.

23
24 We have done that now, and the presentation I am going to give
25 presents those seven, I think it's seven, actions that could
26 constitute a scoping foundation to be taken out to the public to
27 get their input. What we're really looking for is input, before
28 we get too far into this, as to whether the constituents are
29 actually interested, seriously interested, in developing this
30 permit program.

31
32 We go to scoping, and if they all say, no, we don't want
33 anything to do with it, then we drop it, or, if they say okay
34 and they start having input, we will bring those scoping
35 outcomes back to the council, hopefully at the December meeting.
36 We would like to have these scoping hearings only in Puerto
37 Rico, because it's only a Puerto Rico issue, sometime this fall.
38 Then we could come back to the council with some indication as
39 to whether this is a serious initiative that can be moved
40 forward.

41
42 I would emphasize that this is a long-term initiative, and I
43 personally anticipate it as an amendment to the new Puerto Rico
44 FMP and not as an amendment to the present Reef Fish FMP for the
45 U.S. Caribbean, and so that's probably, depending upon how long
46 it takes us to get these FMPs in place, probably at least a
47 year-and-a-half down the road, and so that's just to give you
48 that temporal context on what we're talking about here.

1
2 We're just getting started, and everything is preliminary.
3 That's what this presentation is about, what the basics would be
4 and what we would present in scoping hearings, and whether you
5 want to direct staff to proceed with those scoping hearings.

6
7 Like I said, this is very rough. I am not going to go into
8 detail on these things, but I'm just giving you ideas of how
9 each of the actions could look. Action 1 would just be the
10 decision to even establish a permit program, and I would also
11 point out that this permit program is not only to develop
12 Snapper Unit 2, but it's also to serve as a template for other
13 potential permit programs that could be developed in the U.S.
14 Caribbean.

15
16 I think one that might be very ripe for this, given our input
17 from the fishermen, is the spiny lobster fishery for Puerto
18 Rico. They want to be able to provide better data, and a permit
19 program may provide the context within which those data would
20 make sense, but that's sort of separate right now. You would
21 look at this two ways. One is specific to Snapper Unit 2 and
22 generally how we develop permit programs in the U.S. Caribbean.

23
24 The first action would be the decision as to whether you even
25 want to do this, and Option 1 is no action, you don't require a
26 commercial permit. In other words, we don't develop the permit
27 program. Option 2 is, if you do decide to develop a permit
28 program, do you want an open-access type permit structure or do
29 you want a closed-access type permit structure? Open is you've
30 got have the permit to fish, but anybody, pretty much, can get
31 the permit.

32
33 Closed is you've got to have the permit to fish, and it's going
34 to be a select group of people who are able to obtain that
35 permit, and that could be based on a variety of factors,
36 landings over a certain period of time or previous licensing, et
37 cetera, et cetera. That would be up to the council as we
38 develop this, and so that's Action 1, Options 1 and 2.

39
40 Then there are Options 3, 4, and 5 that define, okay, if you're
41 going to have a permit, what is that permit going to look like,
42 and that would include things such as Puerto Rico DNER has a
43 permit program in place for Snapper Unit 2. Would you just
44 build off of that or require that -- Some of this stuff may not
45 be legal within the Magnuson context, but I'm just putting it
46 out there to try to cover the range of alternatives.

47
48 Option 4, you might have a federal permit, and it could be

1 assigned to the individual vessel. It's commonly to the vessel
2 and rarely to the individual, but, again, I am just putting all
3 the options that I could think of out there. Option 5 is you
4 could have either a holder of the Puerto Rico permit or you
5 could have a separate federal permit. Those would be two ways
6 to become permitted to operate in the Puerto Rico Snapper Unit 2
7 fishery in federal waters. This is only for federal waters, and
8 so keep that in mind. That would be Action 1, just sort of
9 setting the whole thing up.

10
11 Then, if you do that, you start talking about permit
12 eligibility. If you're going to have a permit, are there any
13 eligibility requirements? You could not establish -- There is
14 always a no action, don't establish eligibility requirements.

15
16 Another option would be you have to have a valid commercial
17 license to fish in the U.S. EEZ. That sort of goes without
18 saying, but not necessarily. You could say you're going to get
19 the permit, recreational guys are going to get this permit, and
20 I don't think that's very likely, but I'm just, again, trying to
21 cover all the bases. You could have to have, as I said earlier,
22 proof of previous landings, and there are various options there.

23
24 Then there are specific periods of time. Again, these are just
25 suggestions, just to get the scoping going, but we expect that
26 we will get a lot of input during scoping from the actual people
27 that will be involved in the permit or affected by the permit or
28 just interested in the permit concept, and that's what we would
29 bring back in December to actually start building an options
30 paper on this that would not be formal. It would be a very
31 informal description of what we intend to do. That's why I am
32 kind of skipping through some of this.

33
34 Then you can say what are the allowable gear? For those who are
35 allowed to fish, what kind of gear are they allowed to use? Can
36 they use nuclear weapons, or do they have to use hook-and-line
37 or bandit gear or what? What are they allowed to use, or you
38 could set this up to say this is what you are not allowed to
39 use. Again, how are we going to structure this gear-wise?

40
41 Action 4 is do you want to control the number of trips? Puerto
42 Rico allows only 120 trips per year for an individual fisher.
43 We could have a complementary program. Remember that there is
44 an enforcement concern here, too. The farther apart the Puerto
45 Rico and federal permit systems are, the more difficult it's
46 going to be to enforce, and I think the Coast Guard would
47 probably agree with that. The better they are melded, the less
48 they have to worry about that line between state and federal and

1 the better they're going to be able to enforce out on the water
2 and the better Puerto Rico is going to be able to enforce at the
3 dock.

4
5 If you have separate rules and you don't know where the guy was
6 fishing, you're going to have a difficult time. He says that he
7 was in state waters and he can use nuclear weapons. In federal
8 waters, you don't allow them, and we don't know where he was.
9 Our spatial information is always kind of sketchy, and so that
10 would be number of fishing trips.

11
12 Then maybe, on those fishing trips, you do or don't want to
13 establish a trip limit. Can you get fifty pounds? Can you get
14 500 pounds? Can you get 5,000 pounds, as a max, on any
15 individual trip? Now, you can see that, as you structure this,
16 it could help you to control catch relative to your established
17 ACL.

18
19 You could say, okay, we're going to allow this many fishers to
20 have this many trips with this many pounds. If you multiply it
21 through and everybody takes advantage of their opportunity, you
22 will hit the ACL, but you won't exceed it. That's just a
23 thought as you're considering how a permit can function,
24 because, and this is a little bit of editorializing, but permits
25 can be tremendously beneficial in helping to identify sectors
26 and manage those sectors and manage the landings from those
27 sectors.

28
29 For example, the expansion factors we talked about. If you have
30 got every fisher in a sector reporting all their landings on
31 time, you don't need to apply an expansion factor, and, if the
32 general Puerto Rico reporting is 50 percent, but you know in
33 your sector they're reporting at 90 percent, your expansion
34 factor would be different. It would only be a 0.1 instead of a
35 0.5, and that can make a huge difference relative to what your
36 estimated/expanded landings are relative to what the actual
37 landings were.

38
39 Action 6 is how do they report? Do you want to guide their
40 reporting? Do you want to set up an electronic reporting scheme
41 for these guys? Do you want to have a separate reporting form?
42 I am not saying you do, but I'm just saying that there are ways
43 that you can manage reporting to make sure that you're getting
44 the data where you need it, when you need it, and how you need
45 it. This may allow for -- We're not getting in-season data to
46 do in-season management, presently.

47
48 Without changing that overall situation, you could create,

1 within this permit, a way to get your in-season data and result
2 in in-season management capabilities just for that permitted
3 sector, which, again, could be a huge advantage, because then
4 you can inform the fishers that, okay, you're catching at too
5 high of a rate.

6
7 If you don't manage this, like by reducing the number of trips
8 or reducing the allowable catch on a trip, then you're going to
9 exceed the ACL and we're going to have to reduce your season the
10 next year. Conversely, you could tell the fishermen that you
11 guys are fishing way below your rate and you're not taking
12 optimum yield advantage of this fishery, and so you could
13 actually increase your catch, if the markets will support it,
14 and still not exceed your ABC. That kind of in-season guidance
15 can be very beneficial to the fishers and the managers.

16
17 Then, finally, and I think this the last one, those are just
18 options. I don't want to sweat those too much, but the
19 frequency of reporting, and how often do you report? Do you
20 have to get your reports in every two weeks, every day, two
21 weeks after your actual trip, or what kind of timing do you
22 assign to that reporting?

23
24 You can say that we don't want you to report until the end of
25 the year, but that's not going to allow you to do in-season
26 management, and your timing of reporting is going to influence
27 your capability to manage in-season and be responsive and to
28 identify problems before they become serious problems and to
29 manage those problems.

30
31 Again, these are just suggestions, and all they're meant to be
32 is suggestions to take out to the public, so they have an idea
33 of what the concepts of permitting are, so that they can provide
34 useful input as to how they would like their permitting program
35 to be structured, and I think that's it.

36
37 Then there are pre-established components. These are the things
38 that Roy pointed out the last meeting that you can't really --
39 You don't need to have these in a permitting program, because
40 they're already pretty much pre-established, and that would be
41 administration. The Southeast Regional Office will administer a
42 federal permit system, and so that's not optional.

43
44 Application process, we have a standard permit application, and
45 that's what will be used. Fees, there is a set fee. It could
46 change over time, but, right now, there's a set fee for applying
47 for a permit. You're going to pay that fee if you want this
48 permit. It's not going to be optional that you could say that

1 we're not going to pay anything, because, of course, it's human
2 nature that, if you give them an option between zero dollars and
3 twenty-five dollars, they're pretty much going to take zero
4 dollars, and I would too.

5
6 Duration or renewal date, that's pretty much set. Usually it's
7 the birthday, and it's annual permits. Then penalties, those
8 are in the Code of Federal Regulations. That is not really up
9 for discussion, and I think that's it.

10
11 What we're looking for from the council on this topic is to not
12 take any action on this issue, and that's one option, to just
13 forget it and we don't want to talk about it anymore, or you
14 could direct staff to modify these proposed suggestions that
15 I've made in any way that you feel is appropriate, and then we
16 would revise the, quote, unquote, scoping document.

17
18 Then what we would like is, if you want to move forward on this,
19 is to schedule and conduct scoping hearings in Puerto Rico and
20 present those scoping results at the December meeting, but these
21 are just suggestions. It's your timeline. We can say that we
22 don't want to mess with it until next spring or we don't want to
23 mess with it until next fall of 2017, but I am just making
24 suggestions as to what you might want to do.

25
26 Then there is a council motion already prepared, in case you
27 want to take advantage of it, but you don't have to. That's it.
28 That's all I've got to say about the permits for now.

29
30 **CARLOS FARCHETTE:** Pretty slick, Bill. Graciela.

31
32 **GRACIELA GARCIA-MOLINER:** I do have a couple of questions, and
33 not really directed to you, but to Ricardo Lopez and the DNER.
34 The DNER has had these permits in place since 2013, and there
35 have been a number of years since then. Is the intention of the
36 DNER to continue updating these permits for the harvest of
37 Snapper Unit 2? The Administrative Order ran out last year,
38 and, as far as I know, there hasn't been any changes either to
39 the regulations or to an additional Administrative Order
40 allowing the permits to go on. Is that a continuing resolution
41 or are we back to not having any permits?

42
43 **RICARDO LOPEZ:** We had a meeting with several fishermen, one
44 from the north and one from the south and one from every corner
45 of Puerto Rico. Three of them were in the Bureau, talking with
46 us by telephone, and four of them were in the Fisheries Research
47 Lab.

48

1 What they agreed was to keep the permit as it is, and that was
2 also the idea of Miguel before he left, and of the Secretary
3 before she left. We just requested a meeting with the new
4 Secretary and the new Bureau Director, to see if they want to
5 continue with these meetings with these fishermen and see what
6 changes they want to do, and so I have to wait until the new
7 Secretary and the new Director have made a decision.

8
9 **CARLOS FARCHETTE:** I have a question, or a couple of questions.
10 Since Puerto Rico already has a permit system in place, can't it
11 be adopted in the EEZ?

12
13 **IRIS LOWERY:** My understanding is, and please correct me if I'm
14 wrong, that the Puerto Rico program requires you to be a
15 territorial resident to qualify, and that violates the National
16 Standards under Magnuson.

17
18 **CARLOS FARCHETTE:** Right. Okay. I have another question then,
19 but I will discuss that part later, because you can't land in
20 Puerto Rico without certain requirements anyway, but what about
21 recreational? I heard Bill say that maybe that's not allowed,
22 but can't you have a bag limit and have a permit program in
23 place with a bag limit for recreational, or recreational will
24 not be allowed to fish for that species at all?

25
26 **GRACIELA GARCIA-MOLINER:** In the EEZ, you have a recreational
27 bag limit for Snapper Unit 2 and other reef fish. There is no
28 such limit for Snapper Unit 2 in the state waters, and so they
29 can land whatever they want. There is a National Registry for
30 the recreational fishers, but there is still no recreational
31 fishing license that is in place in the state waters of Puerto
32 Rico yet.

33
34 I do have a follow-up question, and that has to do with
35 enforcement. Do you have any information on how many
36 enforcement interventions there have been in these past four or
37 five years regarding the Snapper Unit 2 permits?

38
39 **RICARDO LOPEZ:** Not necessarily for the last four or five years,
40 but I do have a slide to be presented today with information on
41 2014 and 2015 and 2016, but it's a period of about three or four
42 months for each year. That was provided recently by DNER, the
43 DNER Rangers, but if you want more information, other than those
44 samples of those three years, just let me know and I will
45 request it.

46
47 **GRACIELA GARCIA-MOLINER:** A follow-up. It would be possible to
48 consider the same setup that they have in the state waters of

1 120 trips and of the number of pounds that fishermen can land,
2 in terms of developing a permit that would have the same basis
3 in the federal waters, and so they do have a history of -- They
4 are supposed to have a history of fishing for Snapper Unit 2 of
5 I think it's 500 pounds a year for I don't know how many years.

6
7 Then those are the requirements, in terms of the actual fishing
8 activity, and I don't think that there is any other requirement
9 other than the license, and we know that it discriminates in the
10 EEZ, but the setup that was made, in terms of the number of
11 trips that are limited to, I think that's it. It's 120 trips
12 and no limit on the poundage, and so the same setup as an
13 alternative to how you get your permit.

14
15 **IRIS LOWERY:** I think that would depend on the circumstances of
16 how that would work, because the council cannot basically rely
17 on the Puerto Rico permit as evidence of landings, unless there
18 is also some other alternative for non-territorial residents,
19 and so that doesn't discriminate against residents of other
20 states or territories, and so it's possible that the council
21 could set up some mechanism that relies or allows permit holders
22 in Puerto Rico to demonstrate landings, but then there would
23 also need to be some mechanism for people who weren't eligible
24 for those permits to also establish landings or something along
25 those lines.

26
27 **CARLOS FARCHETTE:** I have a question, but Nelson.

28
29 **NELSON CRESPO:** I am a little concerned. First, this Puerto
30 Rico permit for the Snapper Unit 2 was made with an
31 Administrative Order. We have to find a way to put that permit
32 on the local government law to set it in place, because, in one
33 moment, if the Secretary doesn't want to do an Administrative
34 Order to keep doing this permit, we are going to do nothing.

35
36 Second, we have to clean the list, because we have a few groups
37 of fishermen that are not doing this fishery anymore, and some
38 of them are passed over, and a few of them have gone to the
39 states, and we have to find a way to have a little open window
40 for the new upcoming serious fishermen that want to make a
41 living from this fishery. Maybe it's not that we have to bring
42 a big group of fishermen, but maybe the really good ones we can
43 add to. Another thing is -- I forgot what I was going to say.
44 Okay. We have to look at compatible regulations with the
45 permit, with the local permit, in the EEZ waters. I think
46 that's going to be a good idea.

47
48 **CARLOS FARCHETTE:** A quick question, and then I've got Hanke. I

1 understand about the federal permit problem with residency and
2 all that stuff, but there's got to be a way to protect these
3 fishermen from Puerto Rico that a fisher from -- I don't want to
4 use Florida, but I'm going to use Florida. So they don't come
5 down here and, because they're out in the EEZ, they can sit
6 there for thirty days and fish out the species and just go back
7 to Florida. There's got to be some way that we can protect
8 these guys, whether it's landings or if you didn't fish it
9 before or if your annual landings weren't 10,000 pounds that you
10 can't get a permit, blah, blah, blah, et cetera, and so there's
11 got to be a way to -- I am trying to find a way how this won't
12 happen to these guys.

13
14 **MIGUEL ROLON:** Guys, the only thing that we are addressing today
15 is whether you want to go to scoping meetings or not.
16 Everything that you're discussing could be part of the
17 alternatives. Until you have that, there is no point to keep
18 discussing this anymore, because you need to get, from the
19 public, get the information that you need to keep the
20 discussion.

21
22 The recommendation -- By the way, I was told some years ago that
23 we should not do this, by one of the lawyers, because it is
24 coaching the council, but anyway, it's a nice motion. There is
25 one alternative, Bill, that some of the fishers in Mayaguez and
26 San Juan suggested, which is to somehow condition the permit to
27 the electronic reporting of those who have a permit, and they
28 just wanted to see if that could be considered part of the
29 scoping meeting process. It's just something that they
30 suggested, and I'm not saying that we should include it here or
31 there, but it could be part of the discussion when you have the
32 Action 6 or something, where you talk about data collection.

33
34 **BILL ARNOLD:** Yes, and that was one of the options under
35 reporting, is to have electronic reporting. There was another
36 option that, if electronic reporting is in place, there could be
37 a choice between doing electronic or paper reporting, but
38 everything is on the table right now.

39
40 **CARLOS FARCHETTE:** I've got Roy and then Marcos.

41
42 **ROY CRABTREE:** I would be careful, Carlos, with how you phrase -
43 - When you talk about some way to protect the Puerto Rican guys,
44 that's a problem, because National Standard 4 in the statute is
45 there to prevent us from trying to protect people based on
46 residency, but the statute does allow you to say that we want to
47 protect the guys with a historical participation in the fishery
48 and who are in it now from being flooded with new entrants to

1 it.

2
3 You can come in and do limited entry and limit it to those who
4 have a history of participation and are present participants,
5 but you just can't base it just on residency. Now, I suspect
6 that you're not going to find anyone from Florida with a long
7 history of participation in the fishery, but who knows for sure,
8 but you can certainly limit this to people who have historical
9 participation.

10
11 **CARLOS FARCHETTE:** Okay. I want to stay within the law.
12 Marcos.

13
14 **MARCOS HANKE:** I follow what you say, and I think it's a good
15 guidance for us to think about it, and please take notes of what
16 Roy just said, for everybody that is involved in this
17 discussion.

18
19 Another thing is that, in order not to protect the fishermen,
20 but to protect the resource and because we have an ACL on the
21 EEZ, like a limit quantity of fish that those fishermen can
22 catch, and the result of that is that it's going to protect the
23 resource, which is the main idea, but, as a sideline, those may
24 be bigger boats that can come to fish for a few days and cannot
25 possess a huge amount of fish that are going to mess up our ACL
26 and are going to create a big problem of management for us, but
27 will not affect the people that are using the resource on a day-
28 to-day basis, and that's my rationale on that approach.

29
30 One thing that I want to say on the record, because I'm really
31 happy to hear the position of Crespo, because we have been
32 talking about this permit in the past. I think the sensibility
33 of recognizing that the participants have been changing over
34 time and that we have been having problems in reporting, in
35 people that have historically been participating in that
36 fishery, and I am going to add something to what he -- I don't
37 want to put words in your mouth, but I have been saying that
38 there is, around the island, and I'm going to talk now about the
39 east coast, the southeast coast, and people that participate
40 also that are not included, and I am really happy to know that
41 you guys are engaging on creating something fair and something
42 that is workable, and I want to congratulate you on that, and I
43 look forward to keep working on this.

44
45 **CARLOS FARCHETTE:** Okay.

46
47 **GRACIELA GARCIA-MOLINER:** We do have a control date.

48

1 **CARLOS FARCHETTE:** Okay. Somebody needs to move on this motion,
2 if you like it.

3
4 **MARCOS HANKE:** I would like to move the motion presented on the
5 screen. Thank you.

6
7 **TONY BLANCHARD:** Second.

8
9 **CARLOS FARCHETTE:** The motion is the council directs staff to
10 revise the preliminary Puerto Rico Snapper Unit 2 Commercial
11 Permit Scoping Document as requested and to conduct scoping
12 hearings at appropriate sites in Puerto Rico during Fall of 2016
13 and to present outcomes at the December 2016 council meeting.
14 The motion is by Hanke and seconded by Blanchard.

15
16 Any discussion? I do have one comment about what Marcos said
17 about affecting the ACLs in the EEZ. You know if a fisher comes
18 here in his boat and takes 100,000 pounds of queen snapper, but
19 does not land it in Puerto Rico, it doesn't go against Puerto
20 Rico's ACL. Any further discussion on this? **Hearing none, all
21 in favor, say aye; any nays; any abstentions. Hearing none, the
22 motion carries.** Do you guys need a quick ten minutes? All
23 right. Ten minutes.

24
25 (Whereupon, a brief recess was taken.)

26
27 **CARLOS FARCHETTE:** Moving forward, we are on Timing of
28 Accountability Measures and Kate Quigley.

29
30 **TIMING OF ACCOUNTABILITY MEASURES**

31
32 **KATE QUIGLEY:** Okay. At the June council meeting, the council
33 had directed staff to bring the amendment out for public
34 hearings. Staff did that, and we've got some results. I am
35 just going to provide an overview of the actions and
36 alternatives, just real briefly, and then talk about the
37 outcomes of the public hearings, the codified text, and what the
38 next steps are.

39
40 As you recall, we've got two different actions. Action 1
41 modifies time timing for implementation of the AM-based
42 closures, and Action 2 specifies how often to revisit the
43 approach.

44
45 If you recall, we've got Preferred Alternative 2, which is to
46 have the closure ending September 30, going backwards, and this
47 has been supported by all three DAPs. If you recall, the
48 Alternative 1 is December 31, going backwards. Alternative 3 is

1 January 1, going forward, and Alternative 4 is a number of fixed
2 dates for individual or groups of FMUs, and we have a number of
3 different sub-alternatives for that.

4
5 The sub-alternatives, and I'm just reminding you right now,
6 because folks spoke to these alternatives during the public
7 hearings, was that Alternatives 4a, 4c, 4e, 4g, and 4i are all
8 specific to different regions with a closure to end the last day
9 of the month with the highest average landings, and so three
10 years of landings were used. The average was taken, and so the
11 idea was to close when landings are highest, theoretically.

12
13 Alternatives 4b, 4d 4f, 4h, and 4j, the closure would occur the
14 end of the last day of the month with the lowest average
15 landings, and so the idea, theoretically, was to have a closure
16 when landings are lowest.

17
18 Alternative 5, which we most recently incorporated, was to have
19 a closure either forward or backward from the seasonal closure
20 into the year, as specified through Alternative 5a through 5n,
21 and so it was depending on the specific FMU, and I think I've
22 got a table right here that specifies exactly when those
23 closures would occur. We've gone over all of this before, and
24 so I'm going to go ahead and give the public hearing results,
25 which Graciela put together.

26
27 There were two different public hearings in Puerto Rico. In San
28 Juan, seventeen were present, seventeen individuals were
29 present, and Alternative 2, which is our preferred alternative,
30 four were in support of that. Alternative 3 was one.
31 Alternative 4b, there were seven folks in favor of that. From
32 what I've heard, they were in favor because they were closures
33 specific to species groupings, and I will speak more to that in
34 just a moment.

35
36 In Mayaguez, there were thirty-three people present, four in
37 favor of Alternative 1, which is your December 31 going
38 backwards, Alternative was one, and then Alternative 4b, one
39 individual was in favor of that. Alternative 5, one person was
40 in favor of that.

41
42 Some of the comments that were received were that the ACLs are
43 too low and should be revised, improve data, and closures during
44 months of lowest landings were -- Some folks were in favor of
45 that, at least in San Juan.

46
47 Right now, I'm just going to skip ahead of couple of slides, to
48 just remind you about some of the aspects of the amendments. If

1 you recall, 4b, which some of the people were in favor of in San
2 Juan and at least one person in Mayaguez, if you recall, 4b is
3 the lowest landings. The idea was, if you've got the lowest
4 landings months, then perhaps you would not affect the high
5 market times of year.

6
7 As you see, the 4b sub-alternative specifies a different closure
8 date for each FMU, and so that's something that is appealing to
9 some people, and this is also true for the recreational fishery
10 as well in Puerto Rico. However, just a couple of points that I
11 wanted to make is that these dates are fixed. They will not
12 change over time, but, and I think I mentioned this in previous
13 council meetings, these landings are highly variable, and so
14 this is based on three years of data, but, actually, the
15 landings from year to year are highly variable, and so these are
16 not the typical times. There is no typical for when landings
17 are lowest for these particular FMUs, and so that's one point

18
19 Another point is that, just because these are the lowest
20 landings, on average, for the past three years, it does not mean
21 that you get the shortest closure. In many of these instances,
22 the closure under Preferred Alternative 2 is actually lower than
23 it is under Alternative 4b, and so I just wanted to point those
24 two things out. It really depends on the landings that occur
25 for particular years.

26
27 Now I'm just going to go back to where we left off and move
28 forward to Action 2. If you recall, Action 2 specifies how
29 often the approach to set the timing of AM-based closures
30 selected in Action 1 should be revisited, and the preferred
31 alternative was to revisit the approach selected no longer than
32 two years from implementation and every two years thereafter.

33
34 The public hearing results were that folks in San Juan
35 predominantly wanted Alternative 2, but there was some
36 discussion of having an annual review. In Mayaguez, one person
37 preferred Alternative 2, while three people wanted an annual
38 review. If you recall, as we've discussed previously, the
39 council can go ahead and review this approach at any time. It
40 doesn't even have to be every two years.

41
42 Those are the results of the public hearing. We also have
43 consideration of codified text, which you were all sent before
44 the council meeting. This is the language that would be put
45 into the regulations. Now, this is specific to Preferred
46 Alternative 2, if that is what is chosen by the council.

47
48 This is our draft timeline, and so, the council today needs to

1 discuss the results of the public hearings and review the
2 documents and modify any alternatives they would like to modify
3 and review and approve the codified text. The council has the
4 option to approve the amendment for secretarial review today, if
5 no changes are made. In early 2017, then NOAA would publish the
6 amendment final rule, and the final rule would become effective
7 at that point in time.

8
9 The next steps, as I just said, are to review the results of the
10 public hearing and deem the codified text and consider taking
11 final action, and there are a couple of different motions that
12 we would need in order to make that possible.

13
14 **CARLOS FARCHETTE:** Miguel.

15
16 **MIGUEL ROLON:** This is for Puerto Rico only, what we are
17 addressing at this time. I am going to talk about the majority
18 of the people, and just you have that on the table, technically
19 speaking, that that's what they said, but the majority in Puerto
20 Rico were of the opinion that September 30 and counting backward
21 is something that they don't want. It doesn't apply to the way
22 they fish.

23
24 They believe that it should be by species, and it should be
25 taken into consideration that the lower months of the fishery,
26 although they knew that it could be a longer period of time. I
27 gave them the example and still they picked the lower. They
28 also would like the revision of the process to be as soon as
29 possible, six months or one year.

30
31 Certainly, if there is nothing else, two years, and the
32 rationale for that is that, most of the time, when you have
33 these laws and regulations, when you have new information, the
34 situation might change, and they would like to have the
35 opportunity, in the process, to change that as soon as possible.

36
37 An interesting comment that they made, and this is in general,
38 but most of the fishermen in Mayaguez said that -- That's the
39 rationale that they used for supporting December 31, for the
40 status quo, is that in Puerto Rico, at least on the west coast,
41 the fishers of Cabo Rojo and Mayaguez, stated that the buyers
42 assign quotas to the fishermen during December.

43
44 Let's say that they usually buy fifty pounds of lobster per
45 fisher during the rest of the year, but, in December, they only
46 buy from you twenty pounds, and they believe that is kind of a
47 natural socioeconomic sort of a closure, but we explained to
48 them that, in the case of what we are discussing here, that

1 doesn't apply. It's a good rationale, but it doesn't apply.

2
3 In essence, what we need to do now is to decide as a council is
4 we want to discuss it further and ask questions of Marcos, who
5 was presiding at the hearing in Mayaguez, and Carlos in San
6 Juan, and so we need to hear from you what is your decision
7 regarding the schedule that Kate is presenting to you today for
8 Puerto Rico.

9
10 **CARLOS FARCHETTE:** Marcos.

11
12 **MARCOS HANKE:** Kate, can you go back to the table where the
13 participants are, because I'm not clear on something there. My
14 question is, once we conduct the public hearing, there is a few
15 people that signed up to speak since the beginning and others
16 that, once those guys finished, that also they came to give
17 their input. Those guys are on those numbers or just the first
18 wave of speakers?

19
20 **GRACIELA GARCIA-MOLINER:** I read the minutes and counted the
21 number of people who voted for -- Actually, if you read the
22 minutes, there is no specificity about the action. It's either
23 they talk about something else or -- For whatever I could find
24 that there was specific reference to one of the alternatives,
25 those are the results. Most of them, as Miguel said, in
26 Mayaguez talked about no action, leave it the way it is, and the
27 other ones, those were the ones that if they expressed that they
28 were following someone else, then those are accounted there. If
29 they didn't mention anything about the alternatives, I couldn't
30 find any reason to account for them there.

31
32 **MARCOS HANKE:** I just want to be clear what was the rationale
33 behind those numbers there for me to understand, and I think
34 Miguel synthesized the input of the fishermen, in the case of
35 Mayaguez, to the point, and one concern that I had, after the
36 public hearing ended, is that the majority of them didn't have
37 clear, for whatever reason, that we have an ACL implemented, in
38 place now and so on. They thought it was something new.

39
40 Because of that, instead of them putting time on giving and
41 addressing the situation that we have, there was, again,
42 something that they thought was new, and, on this case, they
43 lost the opportunity to give an opinion about any alternative,
44 and I just wanted to make that comment as something that I found
45 out that was pertinent, but the synthesis that Miguel did I
46 think is to the point, and I think that we should follow the
47 alternative that was chosen by the majority and follow the path.

48

1 **CARLOS FARCHETTE:** Miguel.
2

3 **MIGUEL ROLON:** This is something that is interesting, and I only
4 know this because I am very old, but we went to Mayaguez and to
5 San Juan with the same set of documents, and they said, well, we
6 want to have more information. They we had the darned
7 workshops, and they discussed this to death. Poor Helena
8 suffered through the whole presentations.
9

10 Then we come here to this meeting and it seems that they have
11 lost all their memory. The other thing is I keep telling them
12 if you come here and bitch about the Secretary of DNR and talk
13 about President or Not-President Trump and all of that and you
14 don't say anything about the darned measures, it's like you're
15 approving them and this is the result.
16

17 We had seventy people there, and only thirty-three were
18 deponents. In San Juan, we had seventeen and only -- One of
19 them was representing the entire association, and the other one
20 came to support the guy who was representing the association,
21 but the point is now that the council has to decide whether we
22 deviate from the preferred alternative that we had before and
23 what is it that you would like to see.
24

25 If you go by the majority of the people in Puerto Rico, you just
26 heard what they want, but remember that what they want and the
27 rationale that you have to submit to the Secretary are two
28 different things. You don't necessarily have to go by what
29 everybody says unless you have a strong rationale to support
30 what they said.
31

32 In the case of Puerto Rico, the first question to the council is
33 can we go with Action 1? That's no action, in the case of
34 Puerto Rico, or do we modify or not -- Do we change our
35 preferred alternative? For that, Graciela and Kate will
36 probably need to go back on the screen of what is it that we're
37 talking about when we say Alternative 2 and Alternative 3 and
38 Alternative 4 and Alternative 5, just to refresh our memories,
39 Graciela.
40

41 **GRACIELA GARCIA-MOLINER:** Kate really has to go over Alternative
42 4, which has the majority, quote, unquote, of the people who
43 were requesting that, but, in every case, it was mentioned that
44 they wanted to see the months with the lowest landings taken
45 into consideration.
46

47 When you think about that, there are intricacies to 4b, and so I
48 want Kate to go over that very clearly, because I think -- I

1 wasn't present at these meetings, but the feeling might be that,
2 if you look at September 30, which was the preferred
3 alternative, it actually speaks to the lowest period of time
4 that they will have to --

5
6 **MIGUEL ROLON:** Graciela, that's second-guessing what they
7 thought. What we have now in front of us is what they said, and
8 so what the council needs to do now is to decide what is it that
9 you want to do regarding the opinions that you got from the
10 public.

11
12 **KATE QUIGLEY:** As you requested, I will go over the
13 alternatives, to refresh everyone's memory. If you remember,
14 Alternative 1 is the no action alternative, and this is what is
15 in place right now. If an AM-based closure is implemented for a
16 particular FMU, then the closure occurs December 31 and going
17 backwards for as long as is necessary to make up for the overage
18 that has occurred, and this applies to all FMUs, and so this
19 would apply to December 31 across the board. If there is an AM-
20 based closure for a particular FMU, it would occur December 31
21 and going backwards.

22
23 Preferred Alternative 2 is similar. It applies to all FMUs,
24 but, instead, it's September 30 and going backward, and
25 September 30 was chosen by the DAPs because they had mentioned
26 that this was a time of year when there wasn't as much market
27 demand and there wasn't as much fishing going on.

28
29 Alternative 3 is January 1 and going forward. This was put into
30 the amendment so that we could have a little bit of diversity in
31 the alternatives, and so we had two dates occurring towards the
32 end of the year, and we needed something towards the beginning
33 of the year, and so January 1 going forward, and this would
34 apply also to all FMUs.

35
36 Alternative 4 is different, in that the date when the closure
37 would begin or end varied by FMU, and there are a number of sub-
38 alternatives that are specific to each of the islands and island
39 groups, but, in general, you've got 4a, 4c, 4e, 4g, and 4i,
40 where you have the closure ends the last day of the month with
41 the highest average landings.

42
43 We took a look at the last three years of landings for each FMU
44 and chose the -- They averaged it, the landings, and then they
45 chose which month has the highest average landings and said,
46 okay, we're going to go forward or backward, whichever one is
47 appropriate.

48

1 Alternatives 4b, 4d, 4f, 4h, and 4j, the closure ends the last
2 day of the month with the lowest average landings, and, as I
3 said previously, these dates that are chosen, based upon the
4 highest average landings or the lowest average landings, would
5 not change over time.

6
7 The dates that we have in this amendment, the table I showed you
8 just a little while ago, and I can go back to that, if
9 necessary, would not change, and so you would not have a rolling
10 average of what are the lowest average landings for the last
11 three years and that's going to be when the closure is
12 implemented. That would not occur. It's simply one date that's
13 been chosen based upon the past three years of data that's
14 available.

15
16 In the future, if you have lower landings occurring, perhaps, in
17 August, but the date identified here is January, then that's
18 when the closure would occur, would be in January, and so it's
19 fixed. It does not change over time. Now, those months,
20 therefore, may or may not be what folks are expecting when an
21 AM-based closure occurs, because it's outdated, and so that's
22 very possible.

23
24 Another thing that I will note, which I noted previously, but I
25 went over it fairly quickly, is that the variability in those
26 years, the years that were used to make the average landings,
27 sometimes the months were not close together. They were very
28 different.

29
30 Sometimes you had the lowest months for a particular FMU in
31 January, August, and December, and you just had to average them
32 to get a month. They were all over the place. There was very
33 little consistency, if any, with any of the FMUs. Now, that
34 might just be because things are variable. I am not sure
35 exactly why, but there was very little consistency.

36
37 Then we have Alternative 5, which can be used in conjunction
38 with the other alternatives, which is basically, when you have a
39 closure, this will go ahead and extend it either forward or
40 backward from the seasonal closure into the year, and there are
41 a number of alternatives that go with that, and I've got a table
42 to show that, if needed, and so that's just an overview of the
43 alternatives.

44
45 **CARLOS FARCHETTE:** Marcos.

46
47 **MARCOS HANKE:** Can you go back to the preferred alternative,
48 please? I have a question to Crespo. Nelson, the DAP input is

1 that alternative, but, in the public hearings at Mayaguez, some
2 deepwater snapper fishermen told me, or told us on the record,
3 that August and September, even though it's hurricane season, is
4 when they have days that it's very, very flat. Where you have a
5 lot of activity is when they really can pick up their landings.
6 That is very important on this decision, because it's one
7 example of how different species have to be chosen for different
8 days, and I want to have your input on that.

9
10 **NELSON CRESPO:** First, let me -- I wasn't at that meeting,
11 because that day I was sick, but, in my opinion, of what we
12 discussed in my area, in Rincon, we prefer to start the closure,
13 if we're going to have some closure -- What you say is true.
14 From August to September is one of the highest peaks of the
15 deepwater snapper catch. We prefer to have the closure at the
16 end of the Semana Santa. That's the best -- That's the dates
17 when we're going to have less sales for our catch. It's the
18 lowest season for sales.

19
20 **MARCOS HANKE:** That's Lent, which is March -- It's possible to
21 use that as a reference?

22
23 **GRACIELA GARCIA-MOLINER:** If you look at the table, there are a
24 number of issues going on. One is when it's the least economic
25 impact to the fishers, which was your original idea of this
26 amendment, is to -- They had requested of when it would be the
27 least economic impact to the fishers to have a closure due to
28 the ACL overages. That is the goal. That's what you wanted to
29 achieve.

30
31 If you look at the table on the screen now, the Sub-Alternative
32 4b, which is the lowest landings, and that would be November 30
33 for the Snapper Unit 2. If it was the highest landings, it
34 would be January 1, and so this is Alternative 4, the one that
35 deals with -- June 30 and December 31. These are the dates that
36 are worked out of the alternatives that you have in the
37 document. The issue with the September 30 is that it would, on
38 average, be the least economic impact to the fishers if we begun
39 the closures on September 30.

40
41 **CARLOS FARCHETTE:** That was accepted by the USVI, the September
42 30 backwards, but, for Puerto Rico, it's different.

43
44 **GRACIELA GARCIA-MOLINER:** You went to public hearings with a
45 preferred alternative of September 30. If you are looking to do
46 Alternative 4, it means that there will be different dates for
47 all of your FMUs.

48

1 **MIGUEL ROLON:** Graciela, that's okay, but what we need to decide
2 is the reaction of the council to what they got from San Juan
3 and Mayaguez. In the case of San Juan and Mayaguez, they didn't
4 want the September 30. Whether they are right or wrong or
5 whether they understand the whole thing is beside the point.

6
7 What the council needs to do now is to react to what you got
8 from the public hearings. You can say, after hearing
9 everything, we are still convinced that September 30 is the way
10 to go, and so that would be it, or, after hearing this, we
11 should have the status quo for Puerto Rico and then September 30
12 for the U.S. Virgin Islands, but you have to decide.

13
14 In the case of the majority of the people who addressed this in
15 San Juan, they wanted to do it by species. Whether they knew
16 that this was all about or not, again, that's beside the point.
17 That's what they wanted, and using the months of lowest
18 landings.

19
20 In the case of Mayaguez, Helena and I were talking, and they
21 only addressed the months of lowest landings. They didn't say
22 or to specify by species, and so that's what you need to react
23 to, and you can stick to your preferred alternative, you can go
24 to the no action, or you can change or modify whatever you need
25 to do, but, at this meeting, we need to tell the staff, Kate and
26 Graciela, what is it that you would like to do regarding this
27 document, and also you have to say what is your preference
28 regarding the proposed schedule that Kate presented to you
29 today.

30
31 **CARLOS FARCHETTE:** Marcos.

32
33 **MARCOS HANKE:** How do I say this? Because I want to use the
34 benefit of having the DAP of Puerto Rico here, and I respect the
35 interaction that he has with the fishermen and the overview of
36 different fisheries that take place in Puerto Rico. The point
37 that you brought I think is very valid, because there is, after
38 Semana Santa, there is a drop on the market, and, actually, you
39 have a problem to sell your fish, right?

40
41 The problem is that we don't have a fixed date for that. It can
42 be all the way to the beginning of April. The fact that if --
43 That doesn't happen all the time. If you have it open in March,
44 and let's say that it starts on April 1, on those years in which
45 April 1 and Semana Santa is right there, it's going to affect
46 your guys, but you have the whole March to fill your coolers and
47 to be ready for Semana Santa. Do you think, as a fisherman,
48 that's a bad approach?

1
2 **NELSON CRESPO:** It's an alternative that we can evaluate maybe,
3 yes. We're going to be two or three days, because what we see
4 is we're going to have Semana Santa, in the next ten years, is
5 going to be at the end of March, and so maybe yes.
6
7 **MARCOS HANKE:** The pattern of the low market, low sale, extends
8 through April or May or how does that work, in your experience?
9
10 **NELSON CRESPO:** As soon as the Semana Santa finishes, the market
11 slows down for about one month, more or less one month.
12
13 **CARLOS FARCHETTE:** Kate.
14
15 **KATE QUIGLEY:** One thing that we've talked about in previous
16 council meetings is that it would be extremely difficult to have
17 a date that was variable, that changed from year to year, which
18 is why all of these specify a specific date. If you wanted to
19 put in a new alternative, which was not, I don't think, was
20 mentioned in the public hearings, but maybe it was and it's just
21 not here, but, if you wanted to put in a new alternative for a
22 closure to occur May 1 going forward, you would have to nail
23 down that date, May 1 going forward, and that would, again,
24 compete with the previous public hearings that we've had, the
25 DAP meetings that we've had, and all of that. Just be aware
26 that it's got to be a fixed date, and we would have to bring the
27 amendment back and do that analysis.
28
29 **MARCOS HANKE:** Kate, to that point, the reason I was asking
30 Crespo is because one of the problems that we have is that, in
31 an ideal world, it would be nice, because of the fishermen's
32 request to have species-by-species treatment, or case-by-case,
33 and that creates a big problem for management. Imagine if you
34 have ten of that pass an ACL and then we have a chaotic problem.
35
36 The only way that I see in which all the markets, all the
37 seafood products caught in Puerto Rico, have a slow-down at the
38 same time on the sale and the market is the recommendation that
39 Nelson just did now, and that's more or less where my rationale
40 is going that addresses what we heard on the public hearings,
41 and it's something that I can testify that I know that is true,
42 and I think it's a good recommendation if the fishermen are
43 willing to work harder during March on the year that the Lent is
44 in April, the beginning of April. That year, they're going to
45 lose the opportunity of fishing those days in April, but they
46 have the starting date on April 1 going forward.
47
48 **NELSON CRESPO:** One clarification. If that happens, we won't be

1 able to catch only Deepwater Snapper Unit 2, but we can be able
2 to catch Deepwater Snapper Unit 1. That's the six snapper that
3 have the same value in the market. For me, it's going to work
4 for us.

5
6 **CARLOS FARCHETTE:** Velazquez.

7
8 **CARLOS VELAZQUEZ:** Marcos, in the case of the east of the
9 island, it's very different for the west of the island. The
10 east of the island, the sale is for the whole year. The much
11 better for the people is to come to the village or the fishermen
12 and it's the whole year, for the rest of the season is
13 September. The fishermen, in talking to them in San Juan, they
14 spoke in this meeting that September is less for the sale of the
15 fish, but December, and Miguel told for the fishermen in the
16 west for the sale for the fish market --

17
18 **MIGUEL ROLON:** They lower the quota per fisherman that they buy
19 from them.

20
21 **CARLOS VELAZQUEZ:** In my case in the east, it's different. The
22 best season of lobster, spiny lobster, and the hogfish. For the
23 closed season on the red hind, no problem, but it's the best
24 season for the sale in December for the people that come from
25 America or eating for the spiny lobster. It's the best season
26 for us in the east of the island.

27
28 **MIGUEL ROLON:** The thing is, guys, that, no matter what you do.
29 It's like weddings. Not everybody will be happy with it. In
30 the case of the west, they don't have the clientele that you
31 have in the east, because of the tourism and all of that.
32 Actually, in the case of Puerto Rico, if you travel from the
33 west to the east, the price of the seafood increases at the
34 level of ex-vessel price.

35
36 Genio Pinero, for example, told me several times that he buys
37 the fish from Rincon and Mayaguez and he has sort of a quota
38 that he sells on the west coast of the island, but then, when he
39 brings the same species to the east, the price increases 45
40 percent or more. What is sold in the west for six dollars is
41 ten dollars here, and so that's what Kate is trying to convey to
42 you.

43
44 In this table, she did all of this analysis there, and you have
45 selected -- In the case of the U.S. Virgin Islands, they
46 selected September 30, because that does away with Lent and
47 Christmastime, and they said it's the lowest month of the year
48 for all the species they have, mostly, but, in the case of

1 Puerto Rico, it varies, and so, remember, we are talking about
2 Puerto Rico now only. Even though you have an east coast and
3 west coast differences, you have to decide what is the best for
4 the resources in terms of the socioeconomics of the fishery. In
5 this case, we are not talking about the biology. We're talking
6 about the socioeconomics of the fishery.

7
8 **GRACIELA GARCIA-MOLINER:** Kate, can you bring up the table? I
9 think that, really, this is a very important table, and you have
10 all of the alternatives across the top. You have all the FMUs,
11 all the fishery management units, and you have the number of
12 days that it takes to close a specific fishery, if it was going
13 to be closed.

14
15 **MARIA LOPEZ:** I just want to make a clarification on this table,
16 before you continue. This is just for the species that have
17 historically had AM closures. This is not for all the species,
18 and so it's just a comparison between the days and the pounds
19 that the specific species went over during 2013 and 2016, and
20 so, for purposes of you guys seeing how many days it will be
21 closed. Thank you.

22
23 **GRACIELA GARCIA-MOLINER:** But the table for all of them is in
24 the document, but, just as an example, for the ones that have
25 had the overages, Alternative 2 is, in most cases, the least
26 number of days that the fishery is closed.

27
28 **CARLOS VELAZQUEZ:** Excuse me, Graciela, but what days?

29
30 **GRACIELA GARCIA-MOLINER:** Alternative 2 is starting September 30
31 and counting backwards.

32
33 **CARLOS FARCHETTE:** Marcos.

34
35 **MARCOS HANKE:** It's hard, because I want to do a good decision
36 here, and the only thing that drives me to look for a new
37 alternative is the position of especially deepwater fishermen
38 that use that good weather, because they have to travel in the
39 west farther to fish and so on. That drives them to have a
40 bigger landing.

41
42 On the other hand, they will have the benefit that Graciela just
43 described, that if you have a bigger landing historically in
44 those months, they're going to have less days of closure. It's
45 a give-and-take on that. Because of that, I think that
46 Alternative 2, September backwards, because of the public
47 hearings and because of what I just explained, is the best
48 alternative.

1
2 **CARLOS FARCHETTE:** So that's your motion?
3
4 **MARCOS HANKE:** That's a motion.
5
6 **CARLOS VELAZQUEZ:** Second the motion.
7
8 **CARLOS FARCHETTE:** We're going to put up a motion on the screen
9 here. Roy.
10
11 **ROY CRABTREE:** I think Alternative 2 is already the preferred,
12 and so you don't need a motion, right?
13
14 **GRACIELA GARCIA-MOLINER:** Alternative 2 is the complete document
15 for both Puerto Rico and the U.S. Virgin Islands. It was taken
16 to public hearings as such, and so you do have a Preferred
17 Alternative 2 in Action 1 for the U.S. Caribbean, and so the
18 decision is whether you will continue to have that for both
19 Puerto Rico and the U.S. Virgin Islands or whether you want to
20 change that for Puerto Rico or whether you want to include this
21 new alternative that even though Lent has already been
22 considered as part of the analysis that has been conducted to
23 date and has shown that, anecdotally, that was a period of time
24 when people didn't want to be impacted -- Because, if it's after
25 Lent and it's so many days, it might run into Lent, and so the
26 fact that it begins after Lent doesn't mean that it will stop at
27 Lent. It might run into the whole Holy Week season of fishing.
28
29 **MIGUEL ROLON:** Where did the Lent thing come from? Was it the
30 public hearings or was it just this conversation here?
31
32 **GRACIELA GARCIA-MOLINER:** From this conversation here.
33
34 **MIGUEL ROLON:** It wasn't in the public hearings.
35
36 **CARLOS FARCHETTE:** It's just practically impossible to have two
37 separate times for east Puerto Rico and west Puerto Rico, and it
38 has to be just one Puerto Rico, right? Okay.
39
40 **MARCOS HANKE:** I can respond for Puerto Rico. I don't want to
41 decide anything for the U.S. Virgin Islands, but my motion is
42 Alternative 2 for Puerto Rico.
43
44 **CARLOS FARCHETTE:** Iris.
45
46 **IRIS LOWERY:** I think, as Roy just pointed out, the Alternative
47 2 is currently selected as the preferred for both the USVI and
48 Puerto Rico, and so you would only need a motion if you wanted

1 to change that.
2
3 **CARLOS FARCHETTE:** Okay, and so we're good with it as is,
4 without a motion?
5
6 **IRIS LOWERY:** Right. The next decision would be if the council
7 would like to approve the amendment for submission for
8 secretarial review.
9
10 **MARCOS HANKE:** I am confused. I am really confused, and I'm
11 sorry. I understand the procedure that you just explained. The
12 things that I'm not hearing from the people from the U.S. Virgin
13 Islands is if you want to stay with an alternative that's going
14 to affect them and if you're uncomfortable with that.
15
16 **CARLOS FARCHETTE:** No, we did. Blanchard.
17
18 **MIGUEL ROLON:** Wait, wait, wait. In the process, and, by the
19 way, we sent copies of the documents to the Virgin Islands to
20 make sure, and we didn't receive anything back, and so my
21 understanding is, in the case of the Virgin Islands, the two
22 DAPs and the people who went to public hearings would prefer to
23 support or they supported, at the public hearings, September 30
24 backwards.
25
26 Then, in the case of Puerto Rico, now the decision is you went
27 to public hearings, but nothing that you heard warrants that you
28 change September 30 as your preferred alternative. If that's
29 what you want to do, then the thing that you have to do at this
30 time is what Iris just mentioned, to approve or disapprove the
31 document for submission to the Secretary, following the
32 scheduled that Kate presented to you today.
33
34 **CARLOS FARCHETTE:** So we need a motion to send it to the
35 Secretary.
36
37 **MARCOS HANKE:** Now I'm clear and I feel comfortable of saying
38 that I would like to pass a motion to approve and send the
39 document to the Secretary to approve.
40
41 **CARLOS FARCHETTE:** We need a second.
42
43 **CARLOS VELAZQUEZ:** I second.
44
45 **CARLOS FARCHETTE:** Okay. Now it's open for discussion.
46 Blanchard.
47
48 **TONY BLANCHARD:** Now I'm going to ask for a five-minute break to

1 discuss something off the table. That's what I was going to ask
2 for. I was going to ask for a five-minute break before we come
3 to a decision off the table.

4

5 **IRIS LOWERY:** I would recommend having the discussion on the
6 record.

7

8 **CARLOS FARCHETTE:** I didn't hear what Iris said.

9

10 **MIGUEL ROLON:** Just for the record, what she said is that
11 everything that we have now has to be on the record, and so she
12 preferred Julian to come to the record and state what he needs
13 to say.

14

15 **CARLOS FARCHETTE:** Okay. Julian.

16

17 **JULIAN MAGRAS:** Can we go back a little bit to the last slide
18 that was up, the one slide with all the different closures, the
19 Alternative 1, 2, and 3, with the different days and numbers?
20 What I just noticed, and this is something that we didn't see
21 before, but we've actually seen it now, and I wanted the
22 fishermen in the room to see what I'm seeing, and, if I'm seeing
23 it wrong, I would like Graciela and the team to correct me.

24

25 What I'm seeing is we have requested September 30 going
26 backwards, because it's a very slow time for us selling fish,
27 but, at the same time, it's our slow time of harvest because
28 it's a slow time for selling fish, and what I am seeing here
29 that I picked up for the first time is the number of days.
30 Because it's a slow harvest time for me, it's going to take
31 longer for you to get the numbers of the overrun, and so,
32 actually, that's more of a penalty to the fishermen than
33 actually during the time that the harvest is higher, and that's
34 what we just picked up. We never saw this before. The DAPs and
35 the fishermen never saw this before, and so an example is I will
36 use St. Croix triggerfish and filefish.

37

38 **GRACIELA GARCIA-MOLINER:** That's not St. Croix. This is Puerto
39 Rico only.

40

41 **JULIAN MAGRAS:** No, St. Croix is up there. St. Croix is up
42 there at the bottom, and, if we scroll down, we can go to 2013
43 for the groupers also for St. Thomas, because I am pretty sure
44 2013, the groupers, is when we had the closure in St. Thomas.

45

46 This is my concern that I want you guys who haven't seen this
47 before to see, is our fishery is going to be closed longer, due
48 to the fact that we are not harvesting as much as we can

1 harvest, due to poor sales, and this is a problem.

2
3 **CARLOS FARCHETTE:** But the graph was not up, but it was
4 explained in the hearings that it would take you longer. You
5 didn't see the graph.

6
7 **JULIAN MAGRAS:** We didn't see this graph before, and so I just
8 saw the graph, and, sitting down there I picked it up right
9 away, and so I find that to be a problem, and that's why I asked
10 for the five-minute -- I asked Tony to request a five-minute
11 recess, so we could have a discussion before we move forward
12 with Alternative Number 2.

13
14 **MARCOS HANKE:** Julian, with all the respect, this was explained
15 to us, the implications, by Kate many, many times, the dynamics
16 and the implications of how those numbers change, right? The
17 DAPs made an opinion, and this is what we are following. I know
18 that maybe you saw now and you got impressed by the numbers and
19 the effect that it has, but, at the same time, now as a
20 fisherman, and I'm going to make a question to you.

21
22 Those days, we have those flat days, those calm days. On that
23 species that you guys pass on the ACL or we pass on the ACL,
24 those flat days allow you -- The scenario is that it allows you
25 to fish for other things too. We are not talking about mid-
26 winter time that we are restricted by weather as much. We have
27 those waves of very calm days, and that is a benefit for the
28 fishermen on the fishing dynamic to keep working and substitute
29 the landings with other things, and do you agree with that
30 point, that specific point?

31
32 **JULIAN MAGRAS:** I agree somewhat. I can only speak for myself
33 here right now. I can't speak for the rest of my fellow
34 fishermen and my committee, because, even though it was brought
35 across clear by presentation by Kate, the problem that I have is
36 we didn't see a graph like this, and I think the outcome would
37 have been a little different if the committee members and the
38 fishermen had seen this.

39
40 Now, maybe now, but, for me as a commercial fisher, I look at it
41 as it could be a benefit or it could not be a benefit. When I
42 look at some of those numbers up there, 172 days, and that's
43 just Puerto Rico, but I've got to go down to my own, and if I
44 say September right now, I, as a fisherman, I'm catching a lot
45 of hind. I use the groupers as a -- That fish, I can move, but
46 if I have an overrun like I did back in 2013 and I shut that
47 down right now, my days of catching that same species, which I
48 can sell in the slow market times, I am limited, and so I have a

1 little concern. It's just a discussion that I wanted to have.
2
3 **MIGUEL ROLON:** Going to your discussion, remember this is when
4 you have an overage.
5
6 **JULIAN MAGRAS:** I understand that.
7
8 **MIGUEL ROLON:** By a species, and, just for the record, we told
9 you guys this many, many times. I myself gave you several
10 examples of this at the public hearings, but that doesn't mean
11 that you haven't seen it until today, and I believe that what
12 you are discussing is germane to what we have now, and so the
13 council has to decide or not.
14
15 If you start on September 30, and, actually, Graciela said this
16 in Mayaguez one time. In theory, you can go all the way back
17 from September 30 to January 1. They almost tarred-and-
18 feathered her out of the building, but she was right.
19 Technically, if you have a species that has an overage, and that
20 overage is such that it calls for more days, after September 30
21 and backwards, you can go all the way to January 1. Here, the
22 council has to decide whether you are ready or not to make a
23 decision, based on the information that we have here.
24
25 Remember that this might change according to the numbers that
26 you have for the years that it will take into consideration, and
27 that's what Kate presented to you also several times, and so
28 maybe, in the future, instead of ninety days, and this is an
29 example, of Snapper Unit 2 ninety days, it could be forty-five.
30 It could be 150. It all depends on the fishery year or the
31 landings that you are considering for your action.
32
33 **CARLOS FARCHETTE:** Kate.
34
35 **KATE QUIGLEY:** What Miguel said is it really depends upon the
36 last three years that you're using, that you're looking at. For
37 this, it's looking at older data, and so it's going to change,
38 and so we're speaking in generalities here. We really are, and,
39 Maria, did you want to clarify?
40
41 **MARIA LOPEZ:** If you see, for this table in particular, it's
42 just showing -- This table has been in the document pretty much
43 since the first versions, obviously without the 2016 component.
44 It shows how many days a fishery would be closed or if, instead
45 of being the December 31, which is the alternative one, it's the
46 other dates proposed.
47
48 If you see, for example, in Puerto Rico, it depends on how many

1 pounds you went over. In 2013, you had 132,000 pounds over, and
2 so you had to close for a longer period of time, and so you can
3 only compare it for that amount of pounds. Then, in 2016, which
4 is right now, they went over by 9,973 pounds, and so you are
5 closing for thirty-six days.

6
7 What you need to look at is if that date would have been
8 September 30, instead of closing for thirty-six days, you would
9 have been closed for eighteen days, but that can vary. If, for
10 the next year, you go over by six pounds, but obviously you're
11 going to be, depending on where you are, in what month and what
12 species, it will be longer or shorter.

13
14 The reason for the sub-alternatives is we were given the
15 opportunity to close the fishery during -- If there is low
16 fishing, that means that the closure may be longer, and so it
17 will be shorter or longer closures, but that varies by species,
18 because maybe September is a month that you don't fish for a
19 certain species, but you fish for others, and so all of that is
20 included in the document.

21
22 The reason September 30 is here for both the USVI and Puerto
23 Rico is because, when you had the DAP meetings, that's what you
24 decided to put in there, and that's why we are analyzing it. It
25 was a consensus that, at least for Puerto Rico, it was a slow
26 fishing season. That was related also to weather, and so, if
27 you guys want to put something else, add something else in here,
28 we can certainly do that and bring you more analysis.

29
30 **CARLOS FARCHETTE:** Julian.

31
32 **JULIAN MAGRAS:** I am not saying that none of this wasn't
33 presented, but, here, it goes right back to my comments
34 yesterday, where the fishermen of the USVI, and it's St. Thomas
35 and St. John is what I'm going to speak for, are telling the
36 council members and the Science Center and everyone here in this
37 room that we are not overfishing, because we don't export and we
38 are market-driven.

39
40 Here is a perfect example now. It comes to light. Sometimes we
41 might not see things as fast as the scientists do and the people
42 that have the PhDs on paper, but here is a perfect example of
43 where we scale back fishing because there is no sale. We have
44 to suffer and we don't get no credit. There is no credit for us
45 not harvesting during the slow times of sales, and here is a
46 perfect example, because, on the catch report forms that we fill
47 out, it shows the low harvest during that time, and it takes
48 longer to meet an overrun if there is an overrun.

1
2 It's always on the benefit of the council, but it's never on the
3 benefit of the fisher, the user, and I have a serious problem,
4 with that, a very, very serious problem with that, because we
5 are underharvesting because there is no sale and here it is now
6 that we would have to take a longer seasonal closure or a longer
7 closure going backwards. If we picked -- Which we did choose
8 that date, but we chose that date because it's our hardest time
9 to sell fish and not that it's a slow season for catching fish.
10 It's one of our best times of the year to catch fish, but we
11 can't harvest them, because there is no sale. I just wanted to
12 put my statement on the record, and I look to see how the
13 council will move forward from here. Thank you.

14
15 **CARLOS FARCHETTE:** Thanks, Julian. Coast Guard.

16
17 **LT. FAIR:** Julian, this question is for you. Just for my
18 education, I think it was stated that this is only if there's an
19 overage, correct? If you're not overfishing, then would this
20 really apply to you during this time? It wouldn't be an
21 economical impact to your fishery if you're not overfishing,
22 because you guys, by the sake of your market-driven economy,
23 automatically scale back. Therefore, even if it is a September
24 date, based on the nature of your business, it's not overfished
25 anyway, and am I correct in my assumption?

26
27 **CARLOS FARCHETTE:** Julian.

28
29 **JULIAN MAGRAS:** You are 100 percent correct in your assumption,
30 but, in the future, what we see, because of the way we fish
31 right now and the number of fishermen in the fishery, there can
32 be a time that there is a season where one of these species are
33 caught more than another.

34
35 A perfect example is the red hind. They've been closed for over
36 twenty years, but our ACLs can't go up, and so we had an overrun
37 in 2013. Was it because we were overfishing? No. The numbers
38 of fish increased because of a fourteen-mile-square closure for
39 over twenty years known as the MCD. That's a perfect example.

40
41 We have other fish, like the triggerfish. All of a sudden, the
42 triggerfish are out there in abundance and numbers and sizes.
43 Do we know the reason why? It could be because our neighboring
44 islands ain't catching them because they don't sell them, but we
45 do, and so that's our concern when we see numbers like this.
46 It's not because we are overfishing. You can have a peak that
47 causes you to do an overrun, and now that overrun, because of
48 how this is set up, can make it longer.

1
2 We chose the alternative, and we will live with it, but I had to
3 put my comments on the table, because I have my fishermen on the
4 island listening to what's going on, and I want them to
5 understand what I picked up, and I want the rest of the
6 fishermen in the room to understand what I saw today that I
7 didn't see before.

8
9 **BILL ARNOLD:** I just wanted to remind you guys of a little
10 history on this thing. This whole thing came from a fisherman's
11 request that we get away from the December closures. They did
12 not like that we closed everything every year if a closure --
13 These are accountability-measure-based closures. These aren't
14 seasonal spawning season closures or anything like that. They
15 are just based on exceeding the ACL and having to reduce take to
16 ensure that that ACL is not again exceeded.

17
18 The fishermen asked us to get away from December 31 and have a
19 different closure period, so that the Christmas season -- So
20 that we wouldn't be the Grinch, and I think that was a quote.
21 This is a response to the fishermen, and I thought the council
22 was very accommodating, and we're trying.

23
24 I don't really care what comes of this. The idea is to
25 accommodate the fishermen's market needs and make sure that we
26 are sensitive to those needs. Now, we can choose a fast,
27 highly-active period of the year and have a shorter closure.
28 You are still going to have to take X number of pounds out of
29 that fishery, as was shown by the table. It doesn't matter when
30 you do it, but you've still got to remove enough days to capture
31 those pounds of fish and make sure they're not caught, so that
32 we can avoid, again, exceeding the ACL.

33
34 The reason, I think, that the DAPs leaned towards the slow time
35 of year is for the reasons that Julian states. Even though the
36 fish may be out there, the markets are not really available.
37 You might have a longer closure, but it is a longer closure
38 during a poor market period of time.

39
40 I have no problem with picking a period of time when the markets
41 are hot and your closure is going to be shorter, but that will
42 result in you not being able to bring fish to market during a
43 hot market period of year.

44
45 I think an economist would say that if you're unable to supply
46 that market when that market wants those fish, that market is
47 going to go somewhere else to get those fish and you could lose
48 market access, and so that's another consideration here, is to

1 try to avoid that situation and not have fish when the market
2 doesn't want fish and have fish when the market does want fish,
3 but that's my perspective on this. What is really important is
4 the fishermen's perspective on that. I am not trying to walk
5 over that perspective, but I'm just trying to make sure that
6 we're keeping this in historic context.

7

8 **CARLOS FARCHETTE:** Kate.

9

10 **KATE QUIGLEY:** I just want to echo something that Bill just
11 said. The majority of the analysis in Chapter 4 is based on
12 avoiding loss of markets and avoiding the temptation that
13 perhaps businesses might have to turn to imports. It was all
14 based upon that.

15

16 Almost the majority of the analysis that we've done for the
17 economic, the socioeconomic impacts, is avoiding the temptation
18 to turn to imports, and that was to protect the markets that
19 exist and to support the preferred alternative of the September
20 time period going backwards, because those were identified by
21 council members, in personal interviews, that that would be the
22 time to best avoid high-market periods.

23

24 **CARLOS FARCHETTE:** Okay. What's going to be the decision? Are
25 we going to send this to the Secretary or is this still a
26 concern to the fishers? Blanchard.

27

28 **TONY BLANCHARD:** I say we move forward.

29

30 **CARLOS FARCHETTE:** Okay. We have a motion, and it was seconded
31 by Velazquez.

32

33 **MIGUEL ROLON:** Now you have to vote.

34

35 **CARLOS FARCHETTE:** We were in discussion mode, yes. I got lost
36 here. Then we will take it to a vote. Let me repeat this
37 motion for the record. It's to move to approve the Timing of
38 Accountability Measures Amendment with the selected preferred
39 alternatives and submit the amendment to the Secretary of
40 Commerce for approval. Motion by Hanke and seconded by
41 Velazquez. I am going to go by individuals, and I am going to
42 start on my left with Ricardo Lopez.

43

44 **RICARDO LOPEZ:** Yes.

45

46 **TONY BLANCHARD:** Yes.

47

48 **RUTH GOMEZ:** Yes.

1
2 **MARCOS HANKE:** Yes.
3
4 **CARLOS FARCHETTE:** Yes.
5
6 **ROY CRABTREE:** Yes.
7
8 **CARLOS VELAZQUEZ:** Yes.
9
10 **CARLOS FARCHETTE:** Any nays; any abstentions. It's unanimous,
11 and the motion carries.
12
13 **MIGUEL ROLON:** Mr. Chairman, before you head to the lunch hour,
14 we have here with us Jeanette Ramos, and she would like to take
15 a picture of the voting council members and non-voting council
16 members, and that is after you break.
17
18 **CARLOS FARCHETTE:** Iris.
19
20 **IRIS LOWERY:** We also have another couple of motions that we
21 will need to get through, including deeming the codified text,
22 and also a motion to give staff some editorial license to edit
23 the amendment, as necessary, and the text.
24
25 **MARCOS HANKE:** So moved.
26
27 **CARLOS VELAZQUEZ:** Second.
28
29 **CARLOS FARCHETTE:** Okay. Any discussions?
30
31 **IRIS LOWERY:** I would just suggest reading the motion, for the
32 record. Thanks.
33
34 **CARLOS FARCHETTE:** The motion is give staff the authority to
35 make any changes to the Timing of Accountability Measures
36 Amendment in response to decision made by the council at this
37 meeting and give staff the editorial license to make any
38 editorial changes. Any changes will be reviewed and approved by
39 the Council Chair. Okay. Motion by Hanke and seconded by
40 Velazquez. All in favor, say aye; any nays; any abstentions.
41 Hearing none, the motion carries.
42
43 **MIGUEL ROLON:** Next.
44
45 **CARLOS FARCHETTE:** Hold on. The next motion is give the Council
46 Chairman the authority to deem as necessary and appropriate any
47 modifications made to the proposed rule.
48

1 **MIGUEL ROLON:** It's just a minor thing, but the lawyers told us
2 a long time ago that the "Chairman" should be substituted by
3 "Chair". It's minor thing, but --
4

5 **IRIS LOWERY:** This was my omission, but, before we do that
6 motion or after, we should also have the council itself deem as
7 necessary and appropriate the codified text.
8

9 **CARLOS FARCHETTE:** In that same motion or a separate motion?
10

11 **IRIS LOWERY:** You can do it as one motion if you would like.
12

13 **CARLOS FARCHETTE:** We can add it to that? Okay. Blanchard.
14

15 **TONY BLANCHARD:** Iris, can you explain to me the motion on the
16 board?
17

18 **IRIS LOWERY:** Under the Magnuson Act, it requires that the
19 council deem as necessary and appropriate any regulations that
20 will put into place your amendment, and so that's what this
21 process is, and the codified text that you saw earlier, which is
22 just the change to the regulations that will happen as a result
23 of this amendment, and so you are just saying that those
24 regulations are necessary and appropriate to implement the
25 amendment.
26

27 **CARLOS FARCHETTE:** Okay. I will read this motion again. Give
28 the Council Chair the authority to deem as necessary and
29 appropriate the codified text and any modifications made to the
30 proposed rule. It's moved by Roy Crabtree and seconded by
31 Hanke. **All in favor say aye; any nays; any abstentions.**
32 **Hearing none, the motion carries.** Now it's the photo op. The
33 paparazzi is waiting, and then we break for lunch. We will be
34 back at 1:30.
35

36 (Whereupon, the meeting recessed for lunch on August 24, 2016.)
37

38 - - -
39

40 August 24, 2016
41

42 WEDNESDAY AFTERNOON SESSION
43

44 - - -
45

46 The Caribbean Fishery Management Council reconvened at the
47 Vanderbilt Hotel, San Juan, Puerto Rico, Wednesday afternoon,
48 August 24, 2016, and was called to order by Vice Chairman Marcos

1 Hanke.

2
3 **MARCOS HANKE:** Good afternoon. We're going to start the
4 afternoon session now with Development of Regulatory Amendment
5 Regarding ACL Overages and Application of Accountability
6 Measures: Sector Versus Total ACL Within a Fishery Management
7 Unit.

8
9 **DEVELOPMENT OF REGULATORY AMENDMENT REGARDING ACL OVERAGES AND**
10 **APPLICATION OF ACCOUNTABILITY MEASURES: SECTOR VERSUS TOTAL ACL**
11 **WITHIN A FISHERY MANAGEMENT UNIT**
12

13 **BILL ARNOLD:** Okay. This will be quick. I just wanted to
14 propose this for council consideration, and it has to do with
15 accountability measures, how they're split among sectors, and
16 the possible strategy for taking better advantage of the total
17 available basically optimum yield from any subsector of the
18 fisheries.

19
20 This really pertains to Puerto Rico at the present time, rather
21 than the USVI, because the USVI does not have recreational
22 landings. In fact, I was just on a call trying to develop a
23 recreational sampling program for the USVI, but, until we have
24 that, the commercial controls the total, but, in Puerto Rico,
25 that's not the case. We have a recreational sampling program
26 and we have an annual catch limit subset for each of the
27 recreational and commercial sectors, and so that's really what
28 this is about.

29
30 Here are, as an example, the annual catch limits that are
31 presently in place for what I call the 2010 species, and those
32 are the snappers, the groupers, the parrotfish, and the queen
33 conch. What you see here is there is a commercial ACL, a
34 recreational ACL, and then the total ACL. The total ACL is the
35 one that you really do not want to exceed, because, if you're
36 exceeding that, you are then overfishing the resource and not
37 obtaining optimum yield. In the same way, technically, if
38 you're not achieving your total ACL, you're also not achieving
39 optimum yield for that resource.

40
41 I am using Snapper Unit 2 as an example, because I think it's a
42 very good one. Snapper Unit 2 has 145,916 pounds of commercial
43 annual catch limit. That's how much is allowable to be taken
44 each year. The recreational has 34,810. Obviously that adds up
45 to 180,727.

46
47 This is what happened. This is why there is going to be a
48 closure of the Snapper Unit 2 commercial sector beginning on

1 November 26 of this year, because commercial landings, averaged
2 over 2012 to 2014, was 155,889 pounds. As I mentioned earlier,
3 the commercial ACL was 145,916 pounds. That is a difference, an
4 overage, of 9,973 pounds, resulting in a closure of thirty-six
5 days in 2016.

6
7 In contrast, for the recreational sector, their average landings
8 for those three years was 2,460 pounds. Their ACL is 34,810
9 pounds, leaving 32,350 pounds on the table of unused ACL. Their
10 closure is zero days. Had you combined these into just doing
11 the total, your total average would be 158,349 pounds. Your
12 total ACL would be 180,726 pounds. The difference would be
13 22,377 pounds under your total ACL, and, again, no closure, and
14 so that's a thirty-six-day closure versus a zero-day closure,
15 depending upon the strategy that you had employed.

16
17 Here is an example from the Gulf of Mexico and South Atlantic
18 regions on how they handle this with respect to Atlantic cobia,
19 and I am just showing some alternatives that they used.
20 Alternative 2a, and these are just examples, was the Regional
21 Administrator will reduce the length of the following fishing
22 year only if the species is overfished. That's a totally
23 different designation, and so we're not really concerned about
24 that.

25
26 Preferred Sub-Alternative 2b is the Regional Administrator will
27 reduce the length of the following fishing year only if the
28 total ACL, commercial ACL and recreational ACL, is exceeded, and
29 so this is the sort of thing I'm talking about. This is a
30 precedent, an opportunity, that is also available to the
31 Caribbean Fishery Management Council.

32
33 Sub-Alternative 2c is the Regional Administrator will reduce the
34 length of the following fishing year only if the species is
35 overfished and the total ACL is exceeded, but the one that I
36 really want to emphasize is this one right here, because we're
37 not worried about overfished. We're worried about overfishing.

38
39 What it's saying is you are only overfishing and you only need
40 to implement an accountability measure-based shortening of the
41 fishing season if the combined total of commercial and
42 recreational is exceeded. If you go back here, that would be
43 this scenario, instead of this scenario.

44
45 In this scenario, when you separate them, you can have a closure
46 for the commercial fishery, whereas the recreational fishery is
47 way, way under its allowable catch. When you use this scenario,
48 you combine them, and you could still go over, but, if you do,

1 it's going to take combined landings that exceed that annual
2 catch limit.

3
4 **MARCOS HANKE:** Okay. The clarification that I need from you is
5 this. In this scenario, we are not talking about changing the
6 allocation for the quotas, but it's just the dynamic between
7 both of them?

8
9 **BILL ARNOLD:** I am actually going to get to that, Marcos.

10
11 **MARCOS HANKE:** Okay.

12
13 **CARLOS FARCHETTE:** Iris.

14
15 **IRIS LOWERY:** I just want to be careful about our use of the
16 term "overfishing" in this context, because, really, it's not --
17 If you exceed the ACL, then you're not automatically
18 overfishing. You've exceeded the ACL and an AM is triggered,
19 and so that's, I think, really what you're discussing here.

20
21 **BILL ARNOLD:** Thank you, Iris, because you're not overfishing
22 until you actually exceed the OFL, which could ultimately be
23 similarly considered, but, right now, we're just trying to avoid
24 accountability measure-based season closures, so we don't
25 ultimately exceed the OFL down the road.

26
27 In regard to this specific example from the Gulf of Mexico and
28 South Atlantic, there's a couple of things you need to keep in
29 mind. One is if the total ACL is exceeded, but only one of the
30 sector ACLs is exceeded, the required closure will only apply to
31 that sector that exceeded its ACL, and so it's not like they
32 both get punished.

33
34 If the recreational was below their ACL, but the commercial was
35 way above their ACL, driving the total ACL over the allowable
36 catch, the total landings over the ACL, then the accountability
37 measures would be applied to that sector that exceeded their
38 annual catch limit with no implications for the other sector.
39 Obviously, if both of them exceeded their annual catch limits,
40 they would have accountability measures applied to both sectors.

41
42 **MARCOS HANKE:** In proportion?

43
44 **BILL ARNOLD:** Yes, that's right, in proportion. It would be
45 separately for each, according to their overage. Number two,
46 and that's basically what I said, what we just discussed, is if
47 the total ACL is exceeded and both sectors exceeded their
48 individual ACLs, AMs will be applied according to the degree

1 exceeded and the number of days required to be applied to each
2 sector. Closure length may differ between sectors, depending
3 upon the degree to which they exceeded their individual annual
4 catch limit.

5
6 Number three is this is not a reallocation of ACL between
7 sectors. It's got nothing to do with reallocation. They still
8 have their individual annual catch limits. They still have
9 access to their proportion of the total allowable catch, as they
10 did all along. It doesn't change that at all.

11
12 A couple more things to keep in mind, a little more general, is
13 one sector could race to consume as much of the total ACL as
14 possible, but this is a risky gamble, because, if the total ACL
15 is exceeded as a result of that, that sector will suffer the AM-
16 based closure, assuming the other sector didn't exceed their
17 ACL.

18
19 Yes, you can say, well, we're going to grab all we can get our
20 hands on, but that's not really going to benefit you. In fact,
21 it could hurt you very badly, because of this consideration that
22 the accountability measure is only applied to that sector or
23 sectors that actually exceeded their annual catch limit.

24
25 Number two is the total ACL best reflects optimum yield, and so
26 that's why it's actually more appropriate to work towards the
27 total ACL rather than the individual sector ACLs. As I showed
28 from that earlier discussion of the data, the recreational is
29 leaving 32,000 pounds on the table, and that's basically 32,000
30 pounds of lost economic yield that probably, ideally, would have
31 been taken advantage of.

32
33 Number three is AMs are included as a framework measure in both
34 the 2010 and 2011 Caribbean ACL Amendments, and so, if action is
35 desired, and that's up to the council, and I am just putting
36 this out there for your consideration, it could be developed
37 relatively rapidly as a regulatory amendment.

38
39 While I'm sure the staff would kill me, I think we might be able
40 to do this as amendments to the present fishery management plans
41 rather than the new island-based plans that are a year-and-a-
42 half or two years down the road, but that's kind of secondary.
43 Certainly we would develop it according to the best timeline for
44 the package, and I've talked about this before, the fact that
45 you get in this shadow zone between the old FMPs and the new
46 FMPs, where it's too late to amend the old ones and too early to
47 amend the new ones, and, as I've also said, we're kind of in
48 that area where it could go either way.

1
2 That's why, when we talked earlier about permits, I said we
3 would not consider permits for the present FMPs, but it's just
4 going to take too long to get them developed. They are being
5 considered as potential amendments as we get the new FMPs in
6 place, but that's just some thought.

7
8 Council action today, what we're looking for is don't do
9 anything. If you don't like the idea, that's fine. If so,
10 number two, you would direct staff to develop options, via
11 council motion, I assume, and that's totally up to you guys.
12 Then staff would develop optional approaches to managing based
13 on total ACL, rather than sector-specific ACLs, and we could
14 discuss it at the December meeting, but we don't have to. We
15 could discuss it at any subsequent meeting. That's totally
16 based on your guidance. That's it. It's just something for you
17 to consider. Thank you.

18
19 **CARLOS FARCHETTE:** Hanke, do you have something?

20
21 **MARCOS HANKE:** Yes, and can you go -- On the number three, with
22 "rapidly", what do you mean by "rapidly", on the best-case
23 scenario?

24
25 **BILL ARNOLD:** That's relatively rapidly. Nothing occurs
26 rapidly, but some things can happen faster than other things,
27 and, as we discussed yesterday when we talked about frameworks,
28 if you've got a framework measure, as Maria discussed, or maybe
29 that was today. It all seems so long ago, but, if you have a
30 framework provision, then you can use a regulatory amendment
31 approach rather than a plan amendment approach, and that can be
32 done somewhat quicker, but it's not going to be done in days or
33 even weeks. It's still going to take months and months to do.

34
35 **MARCOS HANKE:** More than one year or less than a year?

36
37 **BILL ARNOLD:** To some degree, that depends upon the council. As
38 you've seen, we can take things that seem simple and make them
39 extremely complex.

40
41 **MARCOS HANKE:** I want to take this opportunity -- My record on
42 this discussion about the Snapper Unit Number 2 and so on is
43 very clear, but I see here an opportunity, the way you presented
44 it, that is very fair and it makes sense to me, because we are
45 not making a reallocation. It's still each sector or each
46 group, if they behave badly, they're going to have the
47 consequences, and I don't see the incentive for the rush to get
48 the quota, because it's still going to be under that cap that we

1 have right now.

2
3 I would like something like this to be an example of effort
4 between sectors on this council, to be as quick as possible, and
5 that's my position, and I really like -- Because I didn't
6 understand when you first explained to me how it worked, and now
7 I have it way more clear. Thank you.

8
9 **CARLOS FARCHETTE:** I have a comment. I want to talk about, many
10 moon ago, I mentioned about this reallocation, and this would
11 benefit the commercial fishing sector of Puerto Rico for the
12 Snapper Unit 2. If the recreational sector does not meet their
13 ACL, I would like to see if it's possible to reallocate what
14 they have left over to the commercial sector. Bill.

15
16 **BILL ARNOLD:** As you're hearing, that's a totally separate
17 topic. That's got nothing to do with this. Now, if
18 reallocation does occur, or at least if people attempt it, I'm
19 sure Roy would be more than happy to tell you how extremely
20 difficult and controversial that can be, the problem being that,
21 just because the recreational only took 2,000 pounds of their
22 allocation last year, it doesn't mean that they're not going to
23 take all of their allocation next year.

24
25 once you've taken it away from them, or commercial -- You can
26 reallocate from the commercial to the recreational side as well.
27 Once you have moved that over, they no longer have access to it,
28 and everybody has variability in landings. That is an inherent
29 component of just about every fishery, and so you have to be
30 careful about taking a trough and taking advantage of it and
31 then, when the peak comes back, that's when the trouble starts.

32
33 **CARLOS FARCHETTE:** I understand that, but I think that in Puerto
34 Rico that DNER's data, I'm sure, if they're looking at years,
35 they can see whether that recreational sector has ever met their
36 ACL or could pass it or a percentage of that ACL can be -- I am
37 trying to find a way not to have a closure for the commercial
38 sector. Roy.

39
40 **ROY CRABTREE:** You can certainly change the allocation, and, if
41 we have a situation where one sector is never catching anywhere
42 close to their allocation and the other sector is, that would be
43 a potential rationale for it.

44
45 Some of the other councils, the South Atlantic and the Gulf, are
46 looking at potential ways to do temporary allocation transfers
47 in cases like that, rather than permanent transfers, and so
48 there are a variety of things we could do. If we have fisheries

1 that chronically both sectors are not catching their
2 allocations, then I guess there is no closure and there's not a
3 problem, but we could definitely address that, but it would take
4 a plan amendment, and this is a framework we're talking about
5 here. I don't think our framework allows allocation changes,
6 does it?

7

8 **IRIS LOWERY:** It does not.

9

10 **ROY CRABTREE:** So that would be a plan amendment.

11

12 **CARLOS FARCHETTE:** All right. I know that it's a totally
13 separate issue, but I want it on the record again, since I
14 mentioned it years ago, and it came up into my mind again when I
15 saw the reallocation. Marcos.

16

17 **MARCOS HANKE:** Carlos, to your point, you and I have been
18 talking about this, and the whole explanation, the way it's
19 clearly stated to us, is it addresses what you're looking for,
20 which is going to allow -- If you're convinced that the
21 recreational is not using the quota, it's going to allow the
22 commercial to, under this explanation, to catch more fish.

23

24 **MIGUEL ROLON:** If I may, you guys should be careful how you
25 phrase this, but what they are offering here is an opportunity
26 for you to use the total ACL, and that's the sum of the two
27 groups, to see if you can then, by framework amendment, allow
28 the fishery to continue if and when one of the sectors does not
29 meet or does not catch what is distributed or allowed to them.

30

31 In the case of Puerto Rico, which is the only place, at this
32 time, that you can get this information, if we follow the
33 example and we have the number two here, then, in essence, what
34 you will do at the end of the day will be to avoid the closure
35 if the recreational sector does not exceed the ACL allocated to
36 them.

37

38 You do away with the reallocation of ACLs among groups. At the
39 same time, it allows you to fill what is it out there that we
40 have, in terms of data, and see how this will behave. I
41 personally believe that this is the way to go. Then, if nothing
42 comes out of this, meaning that -- Because, in order for the
43 recreational sector to rush into catching this, they have to
44 know where they are, in terms of the ACLs, and we are behind two
45 or three years.

46

47 Unless we have in-season changes, you will see this from year to
48 year, and so my recommendation is to follow this and to see if

1 the staff is willing to work more to bring something to the
2 December meeting. Is that okay, Bill, or the March meeting?
3
4 **BILL ARNOLD:** Maybe we should make it spring, because we've got
5 to get this FMP stuff together, and Maria is going to kill me.
6
7 **MIGUEL ROLON:** Mr. Chairman, in order to allow Bill to survive a
8 few more years, then you can instruct the staff to prepare a
9 document for the spring meeting.
10
11 **CARLOS FARCHETTE:** Sure. Sometime in the future, I want to
12 bring this back up, especially with Roy's idea about a temporary
13 reallocation kind of thing. Graciela.
14
15 **GRACIELA GARCIA-MOLINER:** Remember the ACLs are based on actual
16 data collected by the MRIP in Puerto Rico, and so they are
17 actual real numbers that they achieved at some point or that's
18 the best available information that we had at the time. There
19 is huge variability not only in the landings, but in the error
20 around the calculation of that information, that's true, but
21 those were the basis for the ACLs at the time. The actual data
22 that was used --
23
24 **MIGUEL ROLON:** You are raining on my parade.
25
26 **CARLOS FARCHETTE:** Marcos.
27
28 **MARCOS HANKE:** I would like for your patience to be able to
29 discuss this carefully, because it's a step or a mechanism that
30 can be pertinent to us in the future for other species, and one
31 comment that I will make is that part of the reason the
32 allocation is wrong, the pathway just to deal with allocation in
33 a much more complicated system, is that the recreational
34 fishermen, during those periods, I am aware that there was a
35 problem with the contractors that collected the data for the
36 recreational and so on.
37
38 The numbers that are there are not necessarily the true numbers,
39 and we all know that the recreational data has to be refined and
40 get better. Because of that also, these mechanisms that don't
41 deal with the allocation, but it makes sense to the majority of
42 the fishermen here, and I'm looking to Crespo, and I respect his
43 opinion on this, is the right method to go. I really think it
44 makes a lot of sense.
45
46 **CARLOS FARCHETTE:** Make a motion.
47
48 **MARCOS HANKE:** I would like to hear the discussion of everybody,

1 because I want to --
2
3 **MIGUEL ROLON:** By Roberts Rules, you have to have a motion and
4 then you discuss it.
5
6 **MARCOS HANKE:** I can follow Roberts Rules to make a motion to
7 pursue the framework. Can you give me the title there to help
8 the motion?
9
10 **CARLOS FARCHETTE:** Bill.
11
12 **BILL ARNOLD:** While you're developing the motion, I just want to
13 stress that I used Snapper Unit 2 as an example, but the idea is
14 for this to apply across the board in Puerto Rico to any group,
15 be it lobster or triggerfish or whatever, any of the species
16 that have separate recreational and commercial sectors, and
17 lobster does not, but triggerfish would, et cetera, et cetera.
18 It would apply to all of them and not just to Snapper Unit 2 or
19 to Snapper Unit 1 or snappers.
20
21 **MARCOS HANKE:** I want to discuss that part of the other species
22 in a bit. I don't want to mix up that with this discussion of
23 the -- I am hearing, from the staff, part of the staff, that
24 December is impossible. Do you think it's impossible, Bill?
25
26 **BILL ARNOLD:** Yes.
27
28 **MARCOS HANKE:** Okay. Then I will change my motion to the
29 following meeting.
30
31 **MIGUEL ROLON:** The spring meeting.
32
33 **MARCOS HANKE:** That is my motion, the way it's stated. The
34 council directs the staff to develop optional approaches to
35 applying accountability measures in Puerto Rico based on total
36 ACL rather than sector-specific ACLs. Those draft options will
37 come to the council at the spring 2017 meeting.
38
39 **CARLOS FARCHETTE:** I need a second.
40
41 **TONY BLANCHARD:** Second.
42
43 **CARLOS FARCHETTE:** Okay. It's moved by Marcos Hanke and
44 seconded by Tony Blanchard. I've got to read the motion. The
45 council directs the staff to develop optional approaches to
46 applying accountability measures in Puerto Rico based on total
47 ACL rather than sector-specific ACLs and to present those draft
48 options to the council at the spring 2017 meeting. Graciela.

1
2 **GRACIELA GARCIA-MOLINER:** This will be for all of the FMUs that
3 have commercial and recreational ACLs separate in Puerto Rico.
4 This applies to everything.
5
6 **MIGUEL ROLON:** Yes.
7
8 **GRACIELA GARCIA-MOLINER:** Okay.
9
10 **CARLOS FARCHETTE:** Okay. Since we're in discussion, now that
11 Bill mentioned it and Graciela mentioned it, my reallocation
12 topic sometime in the future will also address all species that
13 have recreational and commercial ACLs. Marcos.
14
15 **MARCOS HANKE:** When you say that lobster is a bad example when
16 applying the same pathway, why?
17
18 **BILL ARNOLD:** We don't have recreational data for lobster, and
19 so we don't have separate recreational and commercial ACLs for
20 lobster or for queen conch, and so we can't do it for them.
21
22 **MARCOS HANKE:** But there is an ACL? I don't remember, and I'm
23 sorry.
24
25 **BILL ARNOLD:** There is basically a total ACL. It's
26 commercially-driven for spiny lobster, because we don't have any
27 recreational data, which is exactly the same situation in the
28 USVI, which is why we're not doing it in the USVI. We don't
29 have recreational data in the USVI, and so all of the fisheries
30 in the USVI are commercially-driven.
31
32 **CARLOS FARCHETTE:** Okay. Any further discussion? We will take
33 it to a vote. **All in favor say aye; any nays; any abstentions.**
34 **Hearing none, the motion carries.**
35
36 **MIGUEL ROLON:** Now is Reports to CFMC.
37
38 **CARLOS FARCHETTE:** Next on the agenda is the Reports to the
39 CFMC, Standing Committee for Recreational Sampling Plan
40 Development. Who has that?

REPORTS TO CFMC

STANDING COMMITTEE FOR RECREATIONAL SAMPLING PLAN DEVELOPMENT

41
42
43
44
45 **BILL ARNOLD:** This is just a very quick summary of what we're up
46 to. As I mentioned, we have a recreational monitoring program
47 in Puerto Rico. We do not have one in the U.S. Virgin Islands.
48 The MRIP program has requested that we develop a regional

1 implementation plan for recreational monitoring in Puerto Rico
2 and the Virgin Islands, and we are now working on that. That's
3 the call that Randy and I were on up until 1:30, just trying to
4 develop a strategy for recreational sampling. In Puerto Rico,
5 it's modifying, and, in the USVI, it's developing.

6
7 That's really all I wanted to say about that. You will probably
8 be hearing more about it, but I just want to make sure that you
9 understand that we're working on this, so that we can overcome
10 that lack of information on recreational harvest. This may or
11 may not include the invertebrates, queen conch, and spiny
12 lobster.

13
14 MRIP is very much a finfish program. We're trying to convince
15 them that queen conch and spiny lobster are important enough to
16 be included. Some other invertebrate species have been
17 mentioned, octopus, for example, and whelks. I can't promise
18 that that's going to happen, but certainly we're trying to
19 develop recreational monitoring for finfish, and that's all that
20 topic is about.

21
22 This involves the local governments and it involves the
23 assessment scientists. It's a broad base of people that are
24 working on this regional implementation plan, very much. Ruth
25 and JB were on the call and Craig Lilyestrom was on the call,
26 and so we've got state and federal and private. We've got as
27 much representation as we can possibly have on this, because we
28 need a lot of input from a lot of experts, and so that's it.
29 Thank you.

30
31 **CARLOS FARCHETTE:** Okay. Next, we have Connectivity Studies
32 Seasonally Closed Areas off the West Coast of Puerto Rico: Fish
33 Larvae Sources and Sinks. Where do fish larvae go to when
34 spawned in the Abrir, Bajo, and Tourmaline Banks? This is Dr.
35 Jorge Capella. Then we moved up Michelle Scharer from Other
36 Business to right after Dr. Capella.

37
38 **CONNECTIVITY STUDIES SEASONALLY CLOSED AREAS OFF THE WEST COAST**
39 **OF PUERTO RICO: FISH LARVAE SOURCES AND SINKS**

40
41 **JORGE CAPELLA:** The title says everything. Actually, when
42 Graciela put this in the agenda, I was wondering what "ABT" was.
43 I said that I must have done something wrong, because I don't
44 know what ABT is, but I eventually figured it out. It took me a
45 while, but, anyway, I am going to go directly to the research.
46 If you have any questions about my group and about what CariCOOS
47 is, I would invite you to see our page, caricoos.org, and you
48 will see plenty of detail there.

1
2 What is the ABT? ABT refers to Abrir la Sierra, Bajo de Sico,
3 and Tourmaline Bank. Here are the three of them here. That is
4 Bajo de Sico, that's Tourmaline, and that's Abrir la Sierra, and
5 those are MPAs that have been in place since the 1990s, and this
6 is our EEZ, which is the domain of CariCOOS and the council, and
7 this is the general area where those MPAs are located. They are
8 indicated here too, with the other areas, and these are the
9 boundaries, the official boundaries, for these regions.

10
11 What did we do? We wanted to know where the larvae went. I am
12 going to define exactly what we referred to as the larvae. We
13 use the term particle, and you will see why. We used two
14 different circulation models. One is called AMSEAS, and that's
15 a Navy code, and the other is ROMS. ROMS has been in
16 development for many years, and it actually benefitted a lot
17 from this research.

18
19 We also used HF Radar, and I don't know if you're familiar with
20 HF Radar, but I am going to show you something about that. It
21 gives you a 2D velocity field near the surface of the ocean, and
22 we released a large number of eggs, of particles, in the domain
23 on each of these velocity fields.

24
25 The thing is that somebody was asking me over lunch, and I think
26 it was Michelle, about the inherent variability in all of these
27 process, the dynamics and the things with the larvae and such,
28 and so we wanted to make sure that we covered all the bases, and
29 so we used three different techniques, and they are independent
30 of each other. They run different codes to do the particle
31 tracking, and we released hundreds of thousands of virtual
32 particles within each of the methods, and you will see the whole
33 process very soon.

34
35 Our period of interest is December 1 of 2014 to May 31 of 2015.
36 It should cover the spawning season for most of the spawning
37 aggregations in the area, which include the red hind, the mutton
38 snapper, and, if you look closely at the background I am using,
39 and maybe in another frame, you will see some fish swimming
40 around. That's a spawning aggregation for cubera snapper. It
41 is located near the region where we were working, and so there
42 are other species in the region that also spawn, and not only
43 the red hind and the mutton snapper.

44
45 In addition to that, we used surface drifters and ADCP to
46 conduct model validation. That's an issue with many of these
47 types of studies, is somebody uses a -- They say, okay, I'm
48 going to use this model to do a connectivity study, and it's a

1 community model, and so there's a general assumption that, okay,
2 the model is good, but we have been working on modeling for a
3 long time, and the first thing we know is, as I'm going to show
4 you later, models are very finicky, and it's very easy for
5 models to give you the wrong answer to a problem, especially in
6 the islands of the Caribbean that are small and they have high
7 topography and very steep bathymetry, and so a model that is
8 using the east coast of the U.S., where you have this huge
9 platform and very low slopes, that doesn't automatically
10 transfer directly to the Caribbean.

11
12 Some definitions and specifications. When I talk about
13 particle, particle refers to eggs and early larvae. We were
14 working only with the planktonic stages, which are particles
15 that don't swim and don't feed. The thing is that, when they
16 start swimming and they start feeding, they are not planktonic,
17 and so the currents don't tell them where to go. They can
18 direct themselves to either feeding areas or settlement areas.

19
20 We used fourteen-day trajectories, and this has been an issue.
21 People are always asking of why don't you do it longer and why
22 fourteen days and why not ten days and why not six days?
23 Actually, it's a practical tradeoff, because we found out, as
24 I'm going to show you, that, by fourteen days, most of the
25 particles have exited Mona Passage. Since we are concerned with
26 the MPA areas and the areas around Puerto Rico, after fourteen
27 days, you will see that we get some information that the
28 particles from Bajo de Sico can get all the way to Turks &
29 Caicos and then can go south or to the west, all the way over to
30 Jamaica and things like that, but they are beyond our domain,
31 and so we cut it off to fourteen days.

32
33 Lobster, for example, they can be there for several weeks, but
34 this is for fish, and the very thing we did at the start of this
35 study was to commission a study by Dr. Reni Garcia on the larval
36 duration for all these species and the behavior, as we knew it,
37 about two years ago, when we started. One thing we found out is
38 there is not much information in this regard, and so we used the
39 best available, and this is what I am going to show you.

40
41 One thing we did is we used floating particles. Again, that
42 brings the question of why did we use floating particles and why
43 we didn't track them in mid-water and why we didn't introduce a
44 diurnal cycle, and we could do all of those things, and we did
45 some tests. The thing is the study by Reni Garcia shows that
46 most of the grouper and snapper families, the eggs are floating
47 or stay very close to the surface, and so this study is general.
48 We are not giving information on any specific species of fish,

1 but mainly it applies to snappers and groupers, which are some
2 of the most interesting species we are tagging.

3
4 The other caveat is that we are looking for commercially-
5 important species, like groupers and snappers, and we are
6 focusing on MPA scales. We are not looking at very small
7 scales. For example, if a lobster fisherman wants to know where
8 the lobster in his favorite hole came from, we don't answer
9 those questions. We are not so specific, because the data and
10 the models and all the forcing we have is a larger scale, and so
11 we cannot answer very small scales and space.

12
13 **CARLOS FARCHETTE:** Can we ask questions?

14
15 **JORGE CAPELLA:** Sure.

16
17 **CARLOS FARCHETTE:** Okay. Blanchard.

18
19 **TONY BLANCHARD:** I have a question for you. I see that you used
20 fourteen days. The length of time, the duration, is fourteen
21 days. Now, the science, as well as the fishermen agree, that
22 the fish are going to come up to spawn on the full of the moon,
23 in the full-moon phase. The thing with using a fourteen-day
24 study is the tide shifts every week. This week is one tide.

25
26 **JORGE CAPELLA:** May I interrupt you? I know where you're going.
27 I didn't mean that it's a fourteen-day study. What I mean is
28 that we track the particles for fourteen days, but we are
29 releasing particles, and that's a very good question,
30 constantly, every hour from December 1 of 2014 to May 31 of
31 2015. Every hour of every day, we are releasing particles
32 during that period.

33
34 In addition to that, we also have information on specific
35 spawning dates that have been reported for these bank areas, and
36 so, in addition to doing the whole period, we did specific
37 tracks for the spawning dates, but it's a constant release.
38 It's not that it's just a fourteen-day study. That would be
39 useless. I agree with you.

40
41 The end result will be something that is called a connectivity
42 matrix, and so you will see plenty of those. If you are
43 familiar with the literature, which you might not be, there are
44 many ways to do this thing. What some people call a
45 connectivity matrix, others call it by other names, and so I am
46 being specific about what we calculated and what it means.

47
48 This is a very interesting comment. I always put it in my

1 modeling talks. It says that all models are wrong, but some are
2 useful. He then says something else, which is the trick is
3 knowing when a model is fully wrong, and so just think about it.
4 It makes a lot of sense.

5
6 Some previous research, and I'm going to go fast through this.
7 There is Jack Harlan. He did an HFR study in St. Croix, just to
8 mention one in our area of interest, our Caribbean Council
9 domain. It was very interesting, and the thing is that it had
10 two HFR stations, and so his study was concentrated in this
11 region of St. Croix. I will get back to that later on. Here,
12 he mentions some of the results. He devoted one sentence to the
13 retention of larvae in that region of St. Croix.

14
15 Going the opposite, a larger-scale project, this is a recent
16 paper that tackles the entire Caribbean, and so we would be
17 right here, and it's a very interesting paper, and they use very
18 sophisticated statistical methods, because they are tackling
19 recruitment and recruitment potential and things like that,
20 which we don't tackle.

21
22 Currents in Bajo de Sico, I mention this because we have put an
23 ADCP in there twice. An ADCP is a current meter that measures
24 currents acoustically. We did this in 2007 and then we did it
25 again in 2015, and there are many products I could have chosen
26 to show you, but this is an interesting one. When we sampled in
27 2007, the mean current often exceeded 120 centimeters per
28 second, and that's over two knots. For those of you who do any
29 diving, two knots is a lot. There is no way you can swim
30 against two knots or do anything in two knots.

31
32 Going here, this is the median, the 50 percent. It exceeds
33 thirty centimeters per second, which, as you see, is more than
34 half a knot. It's very strong, and, when we measured here in
35 2015, we see the same patterns of normal flow, but the currents
36 were a bit slower, and we knew about this variability, in terms
37 of the flow, and I bring it up because we used the ADCP for some
38 validation of the codes and the HF radar, and, also, you will
39 see the magnitude of the currents. Here, it shows the general
40 direction in Bajo de Sico.

41
42 Bajo de Sico is, as far as I'm concerned, very much
43 representative of the currents in most of the three MPA areas
44 and most of the central platform of western Puerto Rico. This
45 is at Bajo de Sico, by the way. This is side scan sampling of
46 the depth, and these are the shallow areas, and people fish for
47 deepwater snappers all around there. That is something about
48 currents, but I forgot to say that there are some very strong

1 tidal flows there.
2
3 The AMSEAS code, and remember I told you that we used two
4 models. This one is called AMSEAS. This one comes from the
5 Navy. It's a very good code. When we do our validation
6 studies, it comes up really near the top. The problem it has is
7 it has a very low spatial resolution. When you talk about
8 models, you have to figure out the distance between the grid
9 cells and here is three kilometers, and so you are seeing detail
10 that's in the scale of three kilometers.
11
12 The next model I am going to show you, which is ROMS, is down to
13 one kilometer, bringing it down even more. That is the CariCOOS
14 webpage, and that is the AMSEAS animation. I just wanted to
15 show you, overall. The area we're interested is here, and so
16 just look at this for a few seconds here. You will see the
17 currents going up and down, up and down, and that's tidal. You
18 will see there is a whole lot of activity in this region
19 compared to others. Here, you see an eddy, and we're going to
20 be talking some about eddies, but the Mona Passage is very
21 peculiar, because of the high levels of energy for many
22 different dynamic processes.
23
24 HFR is a high-frequency radar, or, actually, it should be high-
25 frequency radio. People get scared about radars, and it's not
26 actually a radar, per se. When we started this study, and,
27 actually, this is near real-time animation. When we started the
28 study, we only had coverage in this area. Nowadays, we have
29 installed additional antennas, and we have all this coverage
30 here. Actually, it's about -- When the storms come and it's
31 gets very cloudy or something, some of the stations don't work,
32 but usually we have pretty dense coverage throughout here.
33 Anyway, these are also vectors that we used to track the
34 particles.
35
36 You will see here that this is west coast. This is the whole
37 coverage I showed you. When we started this study, we only had
38 the west coast, and so we had two radars, this one and this one.
39 Since then, in the last two-plus years, we have installed more.
40 We now have coverage all over the south coast. Eventually, we
41 are moving to the Virgin Islands as well.
42
43 HF radar has a six-kilometer resolution, and some areas have
44 two-kilometer resolution, and so you can keep that in mind when
45 I show you, and the particle tracking basically means putting a
46 virtual particle -- We gather all the data and we do some
47 processing on it and we put it in the right form. Then we start
48 releasing virtual particles, which are computer particles, in

1 different places and we follow them as they track the vectors in
2 the field. This is a time-dependent field. It's not
3 stationary. It moves over time, and so it's actually a time
4 trajectory.

5
6 This is the validation with the drifters. This is actually a
7 drifter. When we did the proposal to the council, we were going
8 to use four drifters. When we put the ADCP in, it was four
9 drifters. We took it out and followed them for a few hours, six
10 or eight hours, but then our colleagues in engineering developed
11 these low-cost satellite track drifters, and eventually we
12 deployed sixteen in the project, and we were able to follow them
13 for over two months. Some of them decided to come on land, and
14 we lost a few in the Dominican Republic and Puerto Rico, but
15 many of them followed trajectories.

16
17 Here is a typical trajectory for this drifter, and this is the
18 trajectory for the drifter. What I want to show you here is the
19 comparison between the drifter territory and the HFR. Those are
20 completely independent methods of sampling surface currents, and
21 I don't know if you have worked with time series data, but they
22 fit very well. Actually, it's close to amazing, at least to me.

23
24 The thing you look for is for the peaks to align and for the
25 amplitudes to be at the same magnitude, and they do it very
26 well, and so we gained confidence in both the drifter data and
27 the HFR data, especially HFR, which is used to track our
28 particles.

29
30 Each method, each velocity field for a sample -- For HF Radar,
31 we use a technical random flight. For ROMS, we use something
32 called LTRANS. For AMSEAS, we developed our own code, and we
33 did that through a combination of several languages, Fortran and
34 Matlab, et cetera, et cetera. Here, we released particles at
35 hourly intervals from this date to this date. There were
36 thousands of virtual trajectories. Not all methods have the
37 same number of trajectories. It's a technical thing for a
38 sample, and the ROMS one had like 200,000-plus particles. The
39 AMSEAS is like 20,000 or 30,000.

40
41 We did the whole period to get a mean, and then we went on and
42 did specific days provided by Michelle, and we are developing
43 some graphical products so we can do this on demand in the
44 future without handling all the data processing and stuff.

45
46 **CARLOS FARCHETTE:** Ricardo.

47
48 **RICARDO LOPEZ:** Can you go to the previous slide? What is the

1 meaning of the different colors in the two charts?

2
3 **JORGE CAPELLA:** That is dates. In this specific product, the
4 blue is early on. It's how much time they have been in the
5 water. The yellow are near the end, in terms of days, and I
6 will show you more of this later on.

7
8 **RICARDO LOPEZ:** How much time is that?

9
10 **JORGE CAPELLA:** In this case, this specific trajectory, that's
11 about two weeks, but, like I said, they continue. We finished
12 this, but they continue. It's interesting. You see these
13 loops, and those are tidal loops. There are many tidal loops
14 around, and these ones, I specifically brought this into the
15 presentation to show you that some of the trajectories actually
16 cross the Mona Passage. Not many of them do, but these are some
17 of the ones that did it, and these are drifters.

18
19 Remember, don't confuse the drifters that I am showing you right
20 now with the particle trajectories that I am going to show you
21 later. Drifters are like fifteen or sixteen, and they were
22 deployed on days of convenience, when we put the ADCP in or when
23 we took them out our when Michelle went out, et cetera, et
24 cetera, but the particles are a constant stream of things, and
25 so don't judge the mean flow by what happened with these
26 trajectories, and that's a big point.

27
28 This is using the data to track particles. Remember that I told
29 you that it uses a method called random flight, and the random
30 part of the name comes because this is a very nice method that
31 actually releases a cloud of particles at a given location.
32 It's sort of like when you see the hurricanes and they deploy
33 many trajectories of hurricanes from the same model by changing
34 the initial conditions, and that's the cloud.

35
36 This thing is a drifter, and so we released them both at the
37 same place and we're following the drifter and the multiple
38 possible trajectories that came out. Like I said, we released
39 this hourly and not only for the drifter. We did that for
40 validation, but then we released the particles like this hourly
41 for five months.

42
43 These are all the particles released at Bajo de Sico over the
44 five months. You will see that it's very nice, visually. It
45 looks interesting, but it's sort of confusing, and, again, these
46 are the days after release, but obviously near Bajo de Sico they
47 will be blue, because they will be just released. As they get
48 farther away, they become red. The ones in red have been there

1 most of the time.
2
3 The thing is that every method has a different region. Like HF
4 radar, the coverage is like this, and so we can only follow
5 particles in this, but AMSEAS is much wider, and so we can
6 follow them more. Actually, we can go way more, but we cut it
7 here, to be consistent with the other techniques.
8
9 A few things that I am going to show you in this picture is that
10 they tend to go in this direction, but then they tend to turn,
11 and a few of them go to the -- You will see a fairly significant
12 number go to the Dominican Republic. Here, you see this
13 tendency to circle and very few, actually none in this specific
14 run, went all the way eastward.
15
16 We were expecting to at least see a few trajectories that, once
17 they reached the north coast, they would continue eastward,
18 because we know, from measurements, that currents usually flow
19 eastward along the east coast, but the drifters show, the
20 particles show, that they don't go all the way. It might be a
21 matter of resolution. Maybe the model is too coarse. Maybe a
22 finer implementation later will reveal it, but this is what we
23 see happening.
24
25 This is from the ROMS code, the same -- It's a smaller area,
26 because ROMS has a smaller area, but we have the same type of
27 spaghetti plot, the same kind of color coding that they were
28 releasing in Bajo de Sico in blue. As they spread out, they
29 become older and turn to red. I don't expect you to make much
30 sense of this. I will show you a much more condensed product
31 later on that reveals what --
32
33 **MARCOS HANKE:** When I see that -- I just want to have a
34 perspective of scale that I'm not getting from here. The white
35 band around Puerto Rico's shoreline, what we are talking about,
36 in terms of distance north and south and so on, this is open
37 water mostly, or it's areas where we have shallow water in
38 there?
39
40 **JORGE CAPELLA:** Let me see how to answer that. In terms of the
41 HF radar, they can go anywhere. They are not affected by depth.
42 The trajectories, the particles can get very close to land, and
43 I will show you that on another slide, but the models, they have
44 limitations in very shallow water, and so we're talking about a
45 couple of meters. That is the limit, in terms of depth, and so
46 most of the trajectories stay in deeper water for one thing.
47
48 Remember I told you that a lot of the flow is in this direction.

1 It's basically tidal flow on the west coast goes back and forth
2 and north and south. That's why, if you dive Bajo de Sico and
3 the tidal current is going north, it's like a river. There's
4 nothing you can do with it, but fishermen have learned to wait
5 until the tide goes the other way, to see weaker currents and do
6 their deepwater fishing and diving and such. Since they stay
7 mostly parallel to shore, currents follow the bathymetry. If we
8 start at a deep location, they will stay, more or less, at the
9 same depth, because they are following the currents. That is a
10 general trend.

11
12 **MARCOS HANKE:** A follow-up question, because I think it's
13 pertinent for the application of what you are presenting. It's
14 giving me the impression, for what I'm seeing, that, for the
15 same reason that you just explained, that we are addressing
16 deeper water and not too much connectivity with the shallow
17 water, or is it the model or the technique that gives that
18 impression?

19
20 **JORGE CAPELLA:** It's a combination of both, and so we don't get
21 -- The results that I am presenting here don't get into very
22 shallow water, and so we are talking particle -- At the depth we
23 releasing, which was the three spawning areas in La Parguera,
24 and we don't follow them very, very close to shore. We don't
25 see them going there in the models, but that's a really good
26 question, but we are not handling very shallow water, and let's
27 put it that way.

28
29 That is the Tourmaline Bank, and it's a similar trend. Look at
30 this interesting loop, and I'm going to explain this in more
31 detail later, but the trend is always the same. They go like
32 this and then go like this, and a few cross the passage, but,
33 the thing is, when you see the plots in this way, the numbers
34 are hidden, and so it looks more or less the same in every
35 direction, but, when you actually look at the numbers, it's a
36 bit different. Those are for La Parguera.

37
38 Okay. Why are particles coming down from the Mona Passage and
39 into the Caribbean? This is the link that I was showing you.
40 When people think about currents in the ocean, and you see these
41 average-out mean flow kind of things, it looks very nice and
42 straight average, but, actually, the ocean is something like
43 this. There is a lot of eddies, and the Caribbean Sea is
44 characterized by a large number of eddies, moving all the time
45 across the Caribbean. They all move from east to west, and some
46 go in this direction and some go in the other direction.
47 Actually, in this movie, there are not many, and, actually, this
48 is going in this direction, but this one goes like this.

1
2 The thing is that, if you look closely, the ones that go
3 clockwise, which are called anti-cyclonic eddies, they are just
4 trophic features, and they pass very close to Mona Passage, and
5 this is currently -- This is a random kind of picture, and I
6 didn't choose this one, but that is the one that is going on
7 right now. You are looking at a few days of the data during the
8 last week, and that's what we have.

9
10 Particles get entrained in these that I am going to show you,
11 and so, if a fish aggregation occurs in this area and an eddy
12 like this passes through here, it's going to suck the flow from
13 the Mona Passage and entrain it in the eddy, and the eddy will
14 continue westward, usually in deep water. There might be some
15 recruitment in the Dominican Republic, but it's not getting back
16 to Puerto Rico.

17
18 The thing is that they don't occur all the time. They are
19 unpredictable. It's not like tides and astronomical things that
20 you can predict. The eddies are unpredictable. They can occur
21 at any time. There are some seasonal patterns, but the specific
22 passage, it's like hurricanes. You cannot forecast ahead of
23 time when a hurricane is going to come.

24
25 **CARLOS FARCHETTE:** Blanchard.

26
27 **TONY BLANCHARD:** This data that we're seeing on the screen with
28 the tidal flow and the eddies, this is actually going on right
29 now?

30
31 **JORGE CAPELLA:** Yes, and the thing is that what I showed you is
32 the geostrophic currents, because, in the ocean -- There are
33 many things in the ocean. Some are big and some are large and
34 some are in the middle. The ones I showed you in that movie
35 will be the mesoscale, which "meso" is for middle. You don't
36 see the tides. That is without the tides and without the very
37 large -- It's called the geostrophic regime, and you will
38 average out something over five days or seven days in the ocean,
39 in deep water, and what you get is -- I am presenting it because
40 it's relevant.

41
42 This is what happened in March of 2015. CariCOOS was having its
43 general assembly around that time, and we were asked to launch a
44 few drifters so they could see them in real time in the
45 assembly, and we expected the drifters to do what they always
46 do, to go up the coast like most of them actually do, but then
47 we started seeing that the drifters released -- I think, in Bajo
48 de Sico and the ones over the south coast, from La Parguera and

1 some we dropped in Ponce, they started going south. At that
2 time, we didn't know what was happening.

3
4 Actually, we said something happened with the drifters or the
5 satellite or something and we're getting bad data, but then,
6 after a few days, when the geostrophic data came out, we looked
7 and there was a huge anti-cyclonic eddy going around. The thing
8 is that remember that these things are moving from east to west,
9 and what you are seeing here is drifter trajectories integrated
10 over time.

11
12 Anyway, this is what happened. For a few days in March, and
13 actually it lasted like ten days, all of the water in this
14 region was sucked down into this eddy. It was kind of small
15 when it started, and then it intensified and grew, and it took
16 the -- It takes the water and any larvae or any eggs that might
17 be in it.

18
19 **GRACIELA GARCIA-MOLINER:** What is the actual depth of the water
20 that is entrained into the passing eddies? Is it just like the
21 first few meters or does it go to twenty or thirty meters?

22
23 **JORGE CAPELLA:** No, and, actually, we checked that, and it
24 entrains the whole water column. These eddies, in the south of
25 Puerto Rico, they might go down to 500 meters in depth, and so
26 they suck everything. It's like a vacuum cleaner going by and
27 sucking. The thing is, luckily for the fish, is they don't
28 happen all the time or with the same intensity. It's a sporadic
29 thing, but it so happens that in April of 2016, which is a few
30 months ago, there was another eddy, and it did basically the
31 same thing.

32
33 **CARLOS FARCHETTE:** We have another question from Blanchard.

34
35 **TONY BLANCHARD:** The reason I asked you that is, which I'm
36 pretty sure you know, is, when a weather system is moving into
37 an area, it affects the tides, before it arrives and during and
38 when it in the area and when it leaves. Three months ago, the
39 tide would be completely different to an oncoming system, and
40 that's why I asked you if this was a live feed or this was going
41 on at the time that you released the larvae.

42
43 **JORGE CAPELLA:** This is real data, but the thing is, like I told
44 you, is this is called mesoscale data, and so it averages out
45 the higher frequencies in the sample. Tides are not present in
46 these, and, actually, tides hide the effect of these mesoscale
47 studies. They are there. They are happening, but the tide is
48 also happening. It's like you have two music notes at the same

1 time. You might not hear one, but it's still there. If you
2 take the other one out, then it brings the other, and it's the
3 same in the ocean.

4
5 There are many scales. It's called the spectrum of variability
6 in the ocean. It goes from very fine things, like waves and
7 wind waves and breakers inshore, and it goes all the way to the
8 ocean circulation, which is a gyre, and they all mix in. The
9 ocean is characterized by this mixing of scales, and so what I
10 am doing here is highlighting the mesoscale, because it's very
11 important. It's the one with all the eddies and such.

12
13 This frame from that animation back then is synoptic with this
14 frame here, and so this eddy that you see here is this eddy
15 here, and this happened in March of 2016, when we saw another
16 eddy. This time, we deployed drifters south of La Parguera, and
17 we saw another eddy very similar to this one drop by, and this
18 one is further, and so it might not have had the same effect.
19 Anyway, that's not the main point of the talk, and I'm going to
20 jump, or we're going to run out of time, but it's fascinating.

21
22 If we take a whole bunch of data, like I showed you before, and
23 we call those spaghetti plots, and we calculate data density
24 distribution, we get something like that. What we use is
25 basically normalized. We count how often a particle, one of
26 these virtual particles, is in each of the squares, and we
27 normalize by the square that has the most, and we reach these
28 things.

29
30 You will see a lot less variability. You don't see the whole
31 scattering around. What you see is a more uniform pattern that
32 basically connects the south coast of Puerto Rico and the west
33 coast of Puerto Rico up to about the end of the Mona Passage,
34 and you see very little going into the Mona Passage itself, like
35 Mona and Desecheo.

36
37 **CARLOS FARCHETTE:** Bill.

38
39 **BILL ARNOLD:** Just quickly, this is why this is so important to
40 the Caribbean Fishery Management Council, because here is ABT up
41 here. There is spawning larvae that are coming into the La
42 Parguera area and potentially settling, and so ABT can be
43 extremely important to reef fish success in this area under
44 these particular conditions.

45
46 Other conditions may supply other reefs, and so, when we are
47 considering whether we should protect Abrir, Bajo, and
48 Tourmaline, we are not necessarily protecting those spawning

1 aggregations for the sake of Abrir, Bajo, and Tourmaline. We
2 are protecting those spawning aggregations for the sake of reef
3 fish populations all over the place, and that's why Jorge's work
4 is so important to how the Caribbean Council manages these
5 spawning aggregation areas.

6
7 **JORGE CAPELLA:** Actually, when we started this study and were
8 looking at the first drifter trajectories, we were kind of
9 scared. We said, wow, these things go all the way everywhere
10 and there is no trend, but, when you do the necessary processing
11 and do the normalizing, it pops up, and it's very simple. We
12 try to keep the methods simple compared to other methods that
13 are available in the literature.

14
15 **CARLOS FARCHETTE:** Bonnie.

16
17 **BONNIE PONWITH:** Thank you, Mr. Chairman. A quick question, and
18 you may have said this, and so excuse me if I just missed it.
19 My understanding is that your trajectories are running on a
20 fourteen-day series.

21
22 **JORGE CAPELLA:** No, we follow the -- For example, we put an egg
23 in and we follow it for fourteen days, which is actually a
24 particle, because, in reality, it will be an egg and it will
25 hatch and it will become a planktonic larvae. Usually the end
26 stage is something called flexion.

27
28 **BONNIE PONWITH:** That's what my question is, is what is -- For
29 the species of interest, what is the number of days between
30 spawning and flexion?

31
32 **JORGE CAPELLA:** We have that information, and we chose fourteen
33 days in sort of averaging out the available information. There
34 isn't all that much information on the interesting species, but
35 we have a study by Dr. Garcia in that regards.

36
37 **BONNIE PONWITH:** Yes, and that would be useful, because it's
38 important that those things match, just because, once flexion
39 happens, once they can even move two or three meters, then they
40 don't move two or three meters this way. They move two or three
41 meters up or down, and that can dramatically change their
42 trajectory, and that's why it's that drift stage that --

43
44 **JORGE CAPELLA:** I think for many species that it's like a week.
45 The thing is, by fourteen days, they are usually gone over, and
46 so their residence time in the region of interest is on the
47 order of a week or maybe ten days, and they they just fly out,
48 but, like I said, this is just the first iteration of this

1 study, and it can be further refined in many ways by changing
2 the time or changing the behavior of the particles and such.

3
4 Like I said, we calculated by -- We have a trajectory, and a
5 trajectory is a series of points. We can calculate the particle
6 density distribution by counting how many time steps fall in a
7 given square, or we can calculate a given trajectory once it
8 goes into a given square, and there are many other permutations.
9 If you read the literature, there are many ways to do it, but
10 the thing is that this one, although it's not identical to this
11 one, but the trend is the same.

12
13 Like I said before, we're looking at trends under the different
14 techniques, and we haven't manipulated this data at all. This
15 is what came out of the analysis, and just to repeat that these
16 are the ABT. Way in the beginning, I think I showed you a slide
17 which showed the different areas, and so the release areas are
18 these and La Parguera, but there are other areas that we
19 checked, like Mona Passage and Desecheo, to see for recruitment,
20 to see if particles came to those areas.

21
22 One thing we found is that very little of what happens in Mona
23 Passage or La Parguera goes to Guanica and Guayanilla. The flow
24 is in this direction, and sometimes we get reversals, but I am
25 jumping ahead now.

26
27 This is the final step, or at least our final step. We get the
28 spaghetti trajectories and we calculate the densities, and these
29 are the actual connectivity matrices. These are the places
30 where they are released, like La Parguera, Abrir la Sierra,
31 Tourmaline Bank, and Bajo de Sico, and these are the recruitment
32 sites.

33
34 Where we release them, you see the 100 percent. It doesn't have
35 to be 100, but, in this case, I chose this because it's 100.
36 Actually, the number that appears here is the largest number for
37 any given density plot, and so what do you see? You see a 100,
38 and you see that most of the numbers above it are above zero, or
39 quite large, and the numbers below it are smaller, except for a
40 few specific samples. Tourmaline Bank is connected to Abrir la
41 Sierra, but there is very little going to Mona and very little
42 going to Guanica and Guayanilla and Cabo Rojo and La Parguera.

43
44 The trend is, like I showed you before, for the flow to go
45 northward, and so each release area, each MPA, each ABT, seems
46 to connect more to those in the north than those to the south,
47 and it doesn't mean that there is nothing to the south, as I'm
48 going to show you, because these are the plots for the whole

1 five months. This is a blind thing. We are looking at the five
2 months and looking at the average of how things go. We can
3 fairly strongly say that, on the average, connectivity is going
4 to the west in La Parguera and then turning north. That is the
5 main pathway for particles.

6
7 These are for spawning dates. We have plenty of those plots,
8 and I am going to show you an assortment. I tried to change
9 different things, but, by far, it's not the whole set. This is,
10 for example, Tourmaline Bank. This shows the particles released
11 in January, and these are the spawning dates that we know that
12 occur at Tourmaline Bank, and these are the connectivity
13 matrices.

14
15 Like I said, not all of them show 100. Actually, they show the
16 largest number in a given frame. On this specific occasion, in
17 January in Tourmaline Bank, you will see that the particles were
18 directed northward, strongly northward. As they go northwards,
19 they pass through Bajo de Sico, here and here, in January and
20 February, and they just -- It's a typical plot, and now I'm
21 going to show you something very different.

22
23 These are for Bajo de Sico. Like I said, I have full sets of
24 these, for every spawning date and such, and this is Bajo de
25 Sico in March. Look at what happened in Bajo de Sico. Remember
26 that I told you in March that there was this big eddy, and so
27 the particles came south. In March, things changed, and so we
28 have particles from Bajo de Sico going to Abrir la Sierra, but
29 the thing is, as it was commented by Hanke, the near-shore
30 squares don't show much recruitment, but there are squares
31 there, and so there is no reason that there shouldn't be, but
32 the trend to follow is that the flow was so strong to the south
33 that they just didn't spread southward. They just went out.
34 Like I said, it was like a vacuum cleaner.

35
36 When we started this study, I had never seen anything like it.
37 We knew about the eddies, and I have seen them, doing research
38 in other things and modeling, but this is the first real
39 instance where we see a regular effect of the eddy on particles.

40
41 **MIGUEL ROLON:** The other thing is that, in the good old days,
42 the picture was kind of neat. It was from east to west and that
43 was it, and most of the people thought that any spawning
44 occurring that was close to Puerto Rico will go to the Dominican
45 Republic and that we were wasting our time. Actually, those
46 were the comments, but this is really neat, because this proves
47 that the reason why these species are recruited here is because
48 of the currents that you have. In January, you go to the north,

1 and so you have the opportunity for those eggs and larvae to
2 populate other areas, and then, just in March, it's changing the
3 direction to the south.

4
5 **JORGE CAPELLA:** This is not March, generically. This was an
6 event in one March in one year, and so it might change in
7 another March.

8
9 **MIGUEL ROLON:** Yes, but the important part is that it's not as
10 easy as we all thought. It's not as simple. It's a little bit
11 more complicated and that sheds some light into what is
12 happening. From now on, when I go to public hearings and
13 somebody tells me that we are wasting our time, I have proof
14 that we are not.

15
16 **JORGE CAPELLA:** Many people think, and I used to, that the south
17 coast was completely detached from the west coast, but it's not.
18 Actually, we know that there are some eddies here that may
19 promote local retention, but they are sporadic, but the thing
20 is, for the fisheries people to figure out how many of these
21 events have a significant influence in recruitment on a long-
22 term basis, let's say on a yearly class. Is a single event
23 important enough to sustain a species or deplete it completely?
24 Those are open questions right now.

25
26 I am showing you just -- The two I showed you before were from
27 AMSEAS, and this is from ROMS, and some of these came out very
28 small, but this for February, and, again, you see that ROMS has
29 a very similar pattern to AMSEAS, and HFR already showed you the
30 two. That's why it has turned out, for us, surprisingly
31 consistent between the three techniques.

32
33 When we started this, we had no idea what we were going to find,
34 and we haven't manipulated these in any way. These just came
35 out like that naturally, and it's encouraging, because, using
36 only one method, there is always the possibility that your
37 method is wrong, but, when you use three different methods,
38 three different techniques, and they give more or less the same
39 thing, it gives you some weight that what you're seeing is
40 closer to the truth.

41
42 This is my final slide. What did we find? We found consistent
43 particle advection patterns from the three velocity fields of
44 ROMS, AMSEAS, and HFR. The general particle advection trend is
45 north to south in Mona Passage, with a northward mean, and I
46 already explained that.

47
48 On the south coast of La Parguera --

1
2 **MIGUEL ROLON:** Jorge, what is advection?
3
4 **JORGE CAPELLA:** Advection is the movement of a particle due to
5 the currents. It actually has a very technical definition, in
6 terms of the equation of motion, but, basically, it's the
7 movement due to water.
8
9 Here, La Parguera is going westward, and I believe that, if we
10 go further east and we release particles in Guanica and
11 Guayanilla, they will basically go westward and pass through La
12 Parguera, and so probably the west coast -- I don't mean the
13 whole west coast, but at least the western half of the south
14 coast should behave like this, because we have other eddies on
15 the south coast that we know of that may have some other
16 effects.
17
18 The thing was, when we started this study, there was nothing we
19 could do about it, but now, we have HFR coverage on most of the
20 south coast, and so it will be interesting to run some of this
21 particle tracking there.
22
23 We see the effect of eddies, and I like to use this word,
24 because a lot of what goes on with the spawning aggregation is
25 tied to the moon, the tides and things like that, and that is
26 called deterministic. I can find out when it's going to be high
27 tide five years from now in the month of August. That is
28 tables. That is set in stone, to put it that way, or there is a
29 space collision or something like that is going to happen, but
30 the eddies are not like that.
31
32 You have a combination of deterministic things and non-
33 deterministic, and I was talking with Michelle, and we were
34 daydreaming about what are the triggering factors for a spawning
35 aggregation, and I haven't even mentioned Mona Passage and the
36 currents, and that's a whole other new thing.
37
38 Lastly, we find that the three west coast MPAs, the ABT, are
39 connected among themselves and with other known spawning or
40 recruitment areas, and I know Graciela asked me -- She asked me
41 two things, to put in some movies, and that didn't turn out too
42 good, and she asked me what would you do next? I was going to
43 put a slide of what I am going to do next, but then I decided
44 not to. I think my role here is to give you information, and
45 it's up to you guys to figure out what you need.
46
47 In my talk, I said we can do the south coast or we can do
48 different spatial resolutions. For example, the ROMS current

1 that we used, due to this research, we upped the version number
2 in ROMS up to Version 3. Now, we are almost about to baptize
3 Version 4, and each version is validated and improves on the
4 previous one, and so this is a never-ending kind of thing, but,
5 given that, I am not looking for money from you to do more
6 stuff.

7
8 I feel very confident that what I showed you today will hold no
9 matter what, because it's very consistent and it sort of squares
10 with what we know about the Mona Passage and the dynamic
11 factors. If you give me money, I will do more, but I am not
12 going to you, justifying it on this research. If you think
13 there is a need, if there is something that you need to know, a
14 specific question, I would say that would be the best way to go
15 forward, instead of simply going out and doing more of the same.
16 Fisheries guys, beef up on your physical oceanography.

17
18 **CARLOS FARCHETTE:** I have Ricardo and then Bill.

19
20 **RICARDO LOPEZ:** Thank you, Capella, for a great presentation.
21 You were asking what to do next, and I would like to see a
22 similar study between the U.S. Virgin Islands and the east of
23 Puerto Rico and how those currents could be feeding the east of
24 Puerto Rico.

25
26 **JORGE CAPELLA:** I agree with you there, completely, and CariCOOS
27 has a commitment -- CariCOOS is not only Puerto Rico. The thing
28 is that we started a few years ago, and so everything we have
29 done is mostly in Puerto Rico, but we need to spread into the
30 Virgin Islands.

31
32 **GRACIELA GARCIA-MOLINER:** Specifically to that point, the
33 Southeast Fisheries Science Center has about three or four years
34 of work done between the Virgin Islands and Puerto Rico in the
35 Virgin Passage. There is a collection of larvae from there is
36 area, and there is evidence specifically from 2009, and so I
37 think that one of the next steps would be to put Trika Gerard
38 and that group in contact with you guys.

39
40 There has been some modeling done specifically for the Virgin
41 Passage. There were some ADCP placed at that site, and so I
42 think that it would be a great time to get everyone connected on
43 that stage, and the fishery information that we're getting is
44 that the hinds, the red hinds, for example, off the east coast
45 of Puerto Rico may be coming in from the MCD in St. Thomas, and
46 so the amount of red hind recruitment might be very large on the
47 east coast of Puerto Rico, due to the protection of the spawning
48 in the MCD.

1
2 **MIGUEL ROLON:** Graciela, not only maybe, but David Olsen's group
3 was marking the red hind coming out of the red hind bank, and
4 they end up in Vieques and the east coast of Puerto Rico, and
5 they were found by fishers, and so that has been proven in the
6 literature.

7
8 **GRACIELA GARCIA-MOLINER:** Those are the adults. There is also
9 information from the west coast of Puerto Rico. The adults do
10 move, and there has been quite a bit of work done off of the
11 MCD, but, in terms of the larvae and the information that has
12 been actually collected, and I don't know how much of it has
13 been looked at that can validate some of the models off the east
14 coast that have come from the Southeast Fisheries Science Center
15 oceanographic and larvae collection, and so I will make sure
16 that everyone gets in touch and see how we can move forward on
17 this specific request.

18
19 **MIGUEL ROLON:** You asked about next steps, and are there any
20 plans to do a similar study or monitoring in the U.S. Virgin
21 Islands or has that ben done already?

22
23 **JORGE CAPELLA:** We are eager to do it, but the thing is that,
24 right now, there is no HFR coverage, and, like I showed you
25 before, I am a modeler, and, like that phrase said, all models
26 are wrong, but HFR is data, and so I would like to do a
27 combination of both and not do only modeling, but I will wait a
28 little bit, until the Virgin Islands are populated with HFR, and
29 there is a plan to do that eventually, to repeat this, and we
30 will benefit a lot from knowing more about the particles, like
31 development times and any vertical distribution that might not
32 be surface. Anything we know about the particles will help
33 refine the model. Right now, we're just using floating
34 particles, or particles that are released on the bottom and then
35 float, but surely there must be something interesting going on.

36
37 **CARLOS FARCHETTE:** I have Bill and then Marcos and then we have
38 to move forward.

39
40 **BILL ARNOLD:** I have two things, Jorge. First, you mentioned
41 vertical, and I think the vertical component of this is very
42 important, and you might want to look into that, and keeping in
43 mind that these fish spawn a lot of eggs, and only a few of them
44 may survive.

45
46 They may be at the periphery of the actual distribution range of
47 the eggs or larvae, but what I really wanted to ask is, and this
48 isn't right in your area of expertise, but it would be

1 interesting to lay recruitment habitat maps down on that, to see
2 how the larval dispersal patterns relate to the availability of
3 the required settlement substrate. Now, I know that that's not
4 what you do, but we do have people out there mapping.

5
6 **JORGE CAPELLA:** It has been done elsewhere before, and it could
7 be done.

8
9 **BILL ARNOLD:** That will be interesting to look at.

10
11 **JORGE CAPELLA:** In our case, for example in CariCOOS, we are not
12 features people. We are marine scientists and engineers, and so
13 we treat the problem like a technical problem. We need the
14 information from the fishery guys to develop the questions or
15 give us the information, because we are not going out there to
16 mention the content of fat or -- In the 1970s, my dissertation
17 had to do with the Antarctic krill, and we knew everything about
18 the Antarctic krill, about the eggs and how large they were and
19 how much fat they had and how much they lasted as a function of
20 temperature.

21
22 We knew so much, but nowadays, we have much better computers and
23 we have much better models and we have HFR, but we are missing
24 information about the species. To me, it has been a very
25 interesting exercise, comparing what I did before and now.
26 Before, we had horrible models, horrible resolution, and very
27 slow machines, but we knew a lot about the particles, and so I
28 wish I knew more about the particles now.

29
30 **CARLOS FARCHETTE:** Marcos.

31
32 **MARCOS HANKE:** Dr. Capella, today was the first day I met you,
33 and you just put in front of me, for me, the most important
34 presentation that is pertinent to our discussion and to the
35 future of the things that we can do on the council. This, for
36 me, is a great element of the ecosystem-based management tools
37 that we need to pursue that, the ecosystem-based approach.

38
39 This has implication on the forage species that we are not even
40 touching, but, once we touch them and know a little more, we can
41 see the food they are coming from or where they are going to and
42 why there is maybe some species that are chasing them, that way
43 or the other way.

44
45 There is the larval movements that you presented, and there is a
46 great, great consideration that I think that we should put money
47 on it, and, as a council member, I would like to see more
48 efforts in coordination with your job. Thank you.

1
2 **JORGE CAPELLA:** Thank you very much, and, after saying all that
3 I have said, I want you to be skeptical about everything that
4 you see. This is not the final word. This might not all be
5 completely right, and so keep an open mind and deal with what I
6 presented, but also be critical about it, so it will improve.
7 If we all agree on something, it will never improve, and so I
8 need people to disagree with me to move ahead.

9
10 **CARLOS FARCHETTE:** Miguel.

11
12 **MIGUEL ROLON:** Jorge, remember that we are managers and we just
13 want yes or no kind of things. A friend of mine from Beaufort
14 Laboratory a long time ago told me that my models are wrong, but
15 I am right.

16
17 Regarding your statement about fisheries, Graciela and Carlos
18 are now part of the CariCOOS. Through them, we would like to
19 convey whatever the council needs in terms of what you just
20 stated for fisheries, because Marcos is right that we need this
21 kind of information for ecosystem-based management.

22
23 To me, personally, I believe that this is the kind of
24 presentation, and I thank you for taking your time to come over
25 here, that we need to round up our picture of what the fisheries
26 are around here and where they come from, and so at least,
27 through the exchange of questions and answers from Tony --

28
29 Tony is a fisherman from St. Thomas for a long time, and I know
30 that the fishers are all interested in this kind of information
31 that they can use for their own use, but also, at the level of
32 the council, we might be able to explain a little bit more why
33 we do the things that we do when we have spawning closures and
34 all of that.

35
36 **JORGE CAPELLA:** I would be happy to present this anywhere, any
37 venue you might deem, and also, at the same time, explain -- You
38 have seen a little bit of what CariCOOS is and the kind of
39 information, and I encourage everyone to go to the CariCOOS page
40 and look carefully at all the nooks and crannies on the page.
41 We have many interesting things that will benefit everyone,
42 especially in the fisheries, and fishermen on the west coast
43 love us, for many reasons.

44
45 **MIGUEL ROLON:** The last thing I was going to say is we don't
46 have a lot of money, but seed money that you might need to start
47 something in the U.S. Virgin Islands, and, if you are able and
48 have the time in the future, contact us, through our Chair or

1 myself, because I personally believe that we should do something
2 in the Virgin Islands similar to what you are doing here on the
3 coast of Puerto Rico, and to have high caliber of scientists
4 that you are and the group is a blessing in this area, and so,
5 in the future, probably we will be knocking on your door again.

6
7 I would like to carry you to every public hearing that I go to,
8 and so don't offer yourself too much, but I am certain that our
9 paths will cross again, and, as I said, our Chairman is on
10 CariCOOS, and Graciela, and I hope that in the near future, five
11 years from now, we might be able to have something in the U.S.
12 Virgin Islands similar to what we have done on the west coast of
13 Puerto Rico.

14
15 **CARLOS FARCHETTE:** Bonnie.

16
17 **BONNIE PONWITH:** Thank you, Mr. Chairman, and, again, it's a
18 really interesting presentation, and I've already gotten an
19 email off to our sort of spawning habitat modelers and
20 connectivity modelers to make a connection with you and do some
21 compare and contrast of the work. I know they will be keenly
22 interested.

23
24 In terms of future work of this type, this is really
25 informative, and it certainly is eye-opening to understand the
26 mechanisms behind recruitment, and the thing that you do have to
27 be mindful of is I have a lot of curiosity.

28
29 I've got more curiosity than I have time or money, and so one of
30 the things that we could think about is, if we get to a point
31 where we're talking about the importance of spawning closures or
32 protecting spawning areas, using that as a research question to
33 drive some additional modeling, because the modeling is always
34 interesting, as a scientist.

35
36 This floats my boat, but, but, in terms of really making a good
37 investment of your time, having those model runs be question
38 driven I think is really valuable, and so, if we get to a point
39 where you're considering spawning locations and what their
40 contribution might be, that would be a question-driven modeling
41 run that could be done, and that certainly would be informative
42 in helping to add in extra information in making those
43 decisions.

44
45 **CARLOS FARCHETTE:** Thank you, Dr. Capella. As a new, new member
46 of CariCOOS, I see I have a lot to learn. Next is Michelle
47 Scharer, and she will do Sustainability and Recovery of Groupers
48 in Puerto Rico and the USVI, an Update.

1
2 **UPDATE ON SUSTAINABILITY AND RECOVERY OF GROUPERS IN PUERTO RICO**
3 **AND THE USVI**
4

5 **MICHELLE SCHARER:** Good afternoon. My name is Michelle Scharer,
6 and I'm joined by Elizabeth Kadison from the University of the
7 Virgin Islands, and we're here to present, very briefly, very
8 preliminary results of an S-K funded project that started this
9 past year. Again, you can interrupt me with any questions, and
10 this is ongoing work, and so we will go step-by-step and then
11 you can ask questions whenever.

12
13 These are the four main objectives of our study. The study is
14 focusing on Nassau grouper, but we are also including other
15 species of grouper, because some of these spawning aggregation
16 sites are composed of more than one grouper, and so this is the
17 focal one, and it's recently been listed by the Endangered
18 Species Act.

19
20 We wanted to answer four main questions that come up in a lot of
21 the discussions here around this table. First of all, when is
22 the timing of their reproduction, and so when do we need to be
23 there to make sure we can assess their populations, but also
24 protect their spawning event, and, for that, we're using passive
25 acoustic tools, and we will go into that really briefly.

26
27 We wanted to know how many are there and what their sizes are,
28 because some of those characteristics are useful to understand
29 what's going on with the populations. We also wanted to detect
30 the critical habitat that they use for spawning. There is some
31 information on that, but we always need to focus it and keep it
32 current. For that, we're using ultrasonic tagging
33 simultaneously in both sites.

34
35 We also -- One of the questions actually came up in a meeting in
36 St. Croix, where Mr. Blanchard asked me, well, are those
37 populations connected, and I said, I don't know, and so we put
38 it in the proposal, to try to answer if these particular
39 spawning populations that are being monitored are connected or
40 not with the most recent genetic techniques, and so that's
41 basically what we will go over.

42
43 Study sites are, again, ABT, but only B, because that's where we
44 have the multispecies aggregations of the larger groupers. It's
45 Mona Island, which is offshore, on its own platform, and, in the
46 USVI, the Grammanik Bank. We have many species spawning at the
47 same location, and we already had the infrastructure to be able
48 to research these sites by the University of the Virgin Islands

1 and by the University of Puerto Rico, together with HJR
2 Reefscaping.

3
4 In order to get at the timing of the reproduction, we take
5 advantage of the reproductive behaviors that fish undergo
6 underwater, and, if there is time, I will show a very brief
7 video, so that you can actually see this. Basically, we can
8 hear the fish when they're courting, and we know what fish we're
9 listening to, because they make different types of sounds, which
10 are species-specific.

11
12 We have two sites where we monitor in Mona Island, one in Bajo
13 de Sico, and one in Grammanik Bank, and we're collaborating with
14 SEAMAP USVI, because they actually own the instruments that
15 we're using over there. We leave these at the seafloor,
16 continuously recording, from December to June, which is the
17 larger season, and it's recording approximately 288 files per
18 day, which gives you about 50,000 files per site, and multiply
19 by eight, and we've got a bunch of data that we need to look at.

20
21 These are really brief results of the maximum number of fish
22 that we have actually counted by divers being in the water
23 during the aggregations, and those are the main species, and so
24 the diving at the Grammanik Bank, which Elizabeth is involved
25 with, has the highest number of Nassau grouper that we've been
26 able to quantify. In Bajo de Sico, we're still around a hundred
27 fish, and this is the maximum number we've seen on any dive, and
28 then, for yellowfin grouper, it's sixty-six, and only three
29 black grouper at this one site.

30
31 This is what it looks like underwater at the Grammanik Bank, and
32 this is one of the tools that we use to be able to size the
33 fish, and so there is a very small video camera there and two
34 laser pointers, which we film the fish, and, later, we can
35 extract their sizes, and we can see what the size structure is
36 and we don't have to kill them.

37
38 This part is where we're tagging the fish, and we actually have
39 to catch the animal and insert a tag in his belly to be able to
40 detect them throughout the year when we're not there, and so we
41 have a set of receivers that are underwater. Every time one of
42 these tagged fish goes by a receiver, we know who it was and
43 when it was, and we can also see at what depth it was, because
44 these tags have sensors that detect pressure, and we can convert
45 that to a depth reading.

46
47 We did most of the tagging in previously-funded research by the
48 council during 2013 and 2014 at Bajo de Sico, and so the fish

1 were tagged underwater. They were caught in a trap and pulled
2 out and the surgery was done underwater. Within ten minutes,
3 they were released into their habitat. Twenty-nine fish were
4 tagged. We still get detections from about twenty-three of
5 those, and it's been -- For a few of them, they did come back
6 this third year in a row to spawn, and so we'll have that
7 information with more detail.

8
9 At the Grammanik, these were just tagged this year, in 2016, and
10 they were tagged on the surface of the boat. They have already
11 done this previously in the Virgin Islands, and they were
12 successful in tagging these fish, and it's been more recent, but
13 we're actually collecting the same type of data, and so where
14 they are and at what depth and when.

15
16 The receivers they have in the Virgin Islands is a greater area.
17 They're covering the whole shelf edge, from El Seco all the way
18 to the Grammanik, and the area that they cover is a lot larger,
19 basically because the shelf edge between Puerto Rico and the
20 Virgin Islands is continuous and it's larger. At Bajo de Sico,
21 it's a very reduced seamount, and so there's only that little
22 area that we can work in. That is the main reason that we have
23 this difference, and we expect also the fish to behave
24 differently because of these habitats, how they're distributed.

25
26 **ELIZABETH KADISON:** On the Grammanik, we have only -- We started
27 tagging fish in February of this year, and we have, as Michelle
28 said, we have a lot of receivers out, fifty-one receivers. They
29 cover from the eastern edge of the Grammanik Bank across through
30 the Hind Bank MCD and then, fewer and fewer, but they reach all
31 the way out to off of Vieques, and so the number of contiguous
32 days we have tracked fish is much smaller, because it's
33 basically been from February through present. The last time we
34 pulled receivers, we're still tracking ten out of eleven of our
35 fish.

36
37 This is just very, very preliminary stuff. If you look at the
38 top graph, that's actually raw data. When we pull up these
39 receivers, and we pull our receivers once every six months, and
40 they are data recorders. They are located approximately half a
41 kilometer apart all across the shelf, and we can pull them
42 download them. If one of our tagged fish has gone within half a
43 kilometer of the receiver, it is detected, and the time of day
44 and also, as Michelle said, its depth.

45
46 The top graph is our receiver that is actually right on our
47 spawning aggregation site, which we know -- We've been watching
48 that site since 2008, and we have seen yellowfin spawn there,

1 and a variety of other species, and so we know that's where
2 they're spawning. That's also where the hydrophone, the DSG, is
3 located that we're picking up their sounds, and so that
4 particular receiver, this is coming right from it, and you can
5 see these fish -- Our fish were tagged just after the full moon
6 in February of 2016. All of our fish were tagged, and each one
7 of those different colors represents a different fish. There
8 are eleven fish tagged.

9
10 We started tagging about four days after the full moon in
11 February, and about ten days, eleven days, after the full moon,
12 every single fish disappeared from that spawning aggregation
13 site, and then they started showing up. We had four fish, four
14 of our tagged fish, that showed up the following month, right
15 there at the full moon, again, where they were around on that
16 site for about ten days. Then they all disappeared, and then
17 they showed up again just at the full moon of April.

18
19 Now, I have data past that, because I just pulled receivers
20 about two weeks ago, and this particular receiver, none of those
21 fish have come back. They are done for the year for spawning.
22 We have gotten, obviously, lots of hits on our other receivers
23 that are spread across the bank. I am not showing any of that.
24 We haven't analyzed it completely, but there is really strong
25 patterns. The Nassau grouper, when they finish spawning in
26 these periods that they are absent from the spawning aggregation
27 site, they are moving to the west, in general.

28
29 We've had three fish that have gone as far as El Seco, off of
30 Vieques, and so that's pretty significant. That's forty or
31 fifty kilometers away. A lot of them go into the red hind MCD,
32 into that area, which is about five kilometers to the west, but
33 then it appears that they turn around and swim back east to
34 around the full moon of at least February, March, and April. In
35 previous years, we've actually seen a lot of fish, a lot of
36 Nassau grouper, in the same area in January, and so I think
37 they're spawning in January there as well.

38
39 The bottom graph is just another thing that I thought was really
40 interesting. The fish, again, have pressure tags on them, so we
41 can tell how deep they are, every time they hit a receiver.
42 Again, this is just our receiver that is right at the
43 aggregation site.

44
45 It doesn't include any of the other fifty receivers, but you can
46 see -- This is all of our data put together for all fish for the
47 ten days that they're on that site, and what's interesting is
48 the time of day. They're at the top of the reef, up at about

1 thirty-nine meters, for most of the day. Then, around 7:00 or
2 7:30 at night, right around sunset, they go deep. They go down
3 to about forty meters or deeper, and, again, this is just
4 averaged across all days, all fish.

5
6 I think if we looked at the days they're actually spawning that
7 we would probably get a much sharper depth. We would probably
8 see that they even go a little bit deeper than that, but it's
9 averaged across all days, and so we don't know if they are
10 spawning down there until nine o'clock at night or what they're
11 doing, but they definitely go down for about three hours in the
12 evening.

13
14 **CARLOS FARCHETTE:** Miguel.

15
16 **MIGUEL ROLON:** Michelle, from your presentation, in 2006, we had
17 a meeting in Belize, and we had an expert group on Nassau
18 grouper and grouper spawning aggregations, and, there, the
19 experts were saying that you need at least 1,000 Nassau grouper
20 to have a viable spawning aggregation, but, from your talk, it
21 seems that they are reproducing or aggregating for reproduction
22 at a lower number, and that's encouraging, because that's what
23 we wanted to do. Also, have you found a distribution of males
24 and females appropriate for the spawning? Can you tell?

25
26 **MICHELLE SCHARER:** That's this slide. Underwater, we really
27 can't tell who is what sex, unless they are ready, ready, to
28 spawn, because then you will see the difference of the females
29 and the males, and so that's really tricky to do, but the idea
30 of collecting fin clips from the fish that were tagged is that
31 we can actually answer that question.

32
33 In the case of the Virgin Islands, they were using ultrasound.
34 They were doing an ultrasound on the fish, and they were able to
35 determine the proportion of males to females, of those twenty
36 that they captured and released.

37
38 At least we know that, and, in theory, with this information,
39 which is what we're going to use this new genetic method to
40 determine other questions about the connectivity between the
41 populations, and so how many of the fish of the Grammanik are
42 similar, genetically, to the ones at Bajo de Sico, but we can
43 also look for the expression of RNA in developing the hormones
44 and the proteins that are pumping through the bodies of these
45 fish. Hopefully, with some of that DNA work and knowing the sex
46 of the ones that were collected this year in the Virgin Islands,
47 we can go back to our samples from Bajo de Sico and determine
48 which ones of these that we did not sex are either males or

1 females, and so, yes.

2
3 **MIGUEL ROLON:** You found them traveling back or out of the
4 spawning aggregation, or they were actually in the spawning
5 aggregation when you did this?

6
7 **MICHELLE SCHARER:** These are collected from the aggregation
8 itself. The tagging was done on the spawning aggregation, and
9 so the monitoring we're doing now, where we're collecting video,
10 we will be able to determine some of that, but only on the day
11 that they're going to be spawn we can be sure what sex they are.

12
13 Your other question about a viable population for reproduction,
14 I don't think anybody has tried to answer that question. The
15 fact that they are conducting the behaviors to aggregate and
16 spawn is very encouraging, and so, in Belize, they have another
17 standard for their aggregations. They're all 1,000 fish or
18 more, and so this is actually new research that is coming out
19 from other places, and in the Bahamas as well, of very small
20 aggregations.

21
22 **CARLOS FARCHETTE:** Marcos.

23
24 **MARCOS HANKE:** I am happy to hear about that, and I got a little
25 confused with a slide when you presented that a fish is going
26 down during the period that they should be spawning. Before,
27 the idea that we had is that they go up, and do you have any
28 comment?

29
30 **ELIZABETH KADISON:** I would say, based on our observations with
31 yellowfin, and actually not with yellowfin, but we have a really
32 weird thing happening on the Grammanik Bank. We estimate we
33 probably have now between 400 and 600 Nassau grouper coming to
34 spawn there, but we have many more yellowfin, and so what we
35 have seen is when our yellowfin spawn that the Nassau mix with
36 them, and I don't know whether that's -- I don't think that's
37 probably something that happened in the past, and maybe it's
38 because Nassau are at lower numbers, and they are cued by the
39 yellowfin, but the behavior that we see is that fish actually do
40 -- They come way up in the water column, in a big group, but
41 then, as a group, they sort of do this circular pattern and they
42 move off the shelf, and they're still kind coming up and down,
43 but they're moving off the shelf and they are getting into
44 deeper water, and so it's sort of a relative -- In general,
45 they're moving off the shelf and probably getting deeper when
46 they spawn, I would think.

47
48 **MICHELLE SCHARER:** This work on the genetics of the Nassau

1 grouper specifically is going to be conducted at the University
2 of Puerto Rico by Dr. Nicholas Schizas, and so these are the
3 latest techniques being used that give you a lot more power to
4 understand genetic relationships between populations, and so
5 we'll be able to address Mr. Blanchard's question better next
6 year.

7
8 What we've learned so far is basically, thanks to the tagging
9 work that Evan has been conducting, we have detected Nassau
10 grouper going up to 155 meters at the spawning aggregation site
11 at Bajo de Sico, and so this is actually much deeper than what
12 the reports for the species are, but Bajo de Sico is a very
13 particular place, because it's a seamount and very deep water is
14 nearby, and it could be site specific.

15
16 We do have the evidence that they are using mesophotic coral
17 ecosystems as their spawning habitat, and so this is really
18 important for the application of the research of MCEs, as
19 they're called, and we did collect evidence of at least two
20 sites where Nassau grouper are spawning, one for black grouper
21 and two for yellowfin, and these are being monitored with all
22 these three techniques simultaneously.

23
24 Then we also re-observed, this year, that the fish are spawning
25 beyond the closed season for their marine protected areas, and
26 that's something that we had seen before, and we were actually
27 able to document it again this year. Specifically, at Bajo de
28 Sico, there was Nassau grouper aggregated in April and, at the
29 Grammanik, they were aggregated in January and May also beyond
30 what those closed seasons are.

31
32 **MIGUEL ROLON:** Michelle, what are mesophotic coral ecosystems?

33
34 **MICHELLE SCHARER:** They have been defined as the areas where
35 there is coral development at depths beyond thirty meters, and
36 so they're not the coral reefs, like developed coral reefs, like
37 they are in shallower water, but they're more associated to the
38 slopes and deeper areas, but there is coral. There is enough
39 light penetration that coral is growing, and so it's something
40 that is coming in. There's actually a book out that was
41 recently put out by NOAA regarding these ecosystems and how
42 important they are for spawning fish.

43
44 **CARLOS FARCHETTE:** Graciela.

45
46 **GRACIELA GARCIA-MOLINER:** One of the characteristics is that you
47 will have a difference in the shape of the corals as they are
48 growing and expanding to the site. They will be shallower and

1 kind of loosely attached to whatever surface is there, but what
2 is extremely important of these areas is that there is also very
3 many sponges associated in these areas, and so the change in the
4 habitat, although it's still coral, there is a still a dramatic
5 change in the other composition of the habitat, and so the shape
6 although there will be relief, and so whatever rock structure
7 you have under it, but the shape of the coral itself.

8
9 **MICHELLE SCHARER:** This is the last slide. I wanted to share
10 with you what a spawning aggregation actually looks like. This
11 is recorded at forty meters depth, and, as you can see, these
12 are yellowfin grouper, and there is a triggerfish there that
13 also nests there, and they are using the complete water column.

14
15 If you look back in here, you see some fish all the way up to
16 maybe fifteen meters from the surface, and those are yellowfin
17 grouper, and so when they are there, when they are aggregated,
18 they are using the complete water column, and it's during this
19 time when we can actually record their behavior and the sound
20 they're producing, so that we can better interpret later the
21 sounds without the video. Any questions that we can entertain
22 while we see this?

23
24 **CARLOS FARCHETTE:** I have Carlos Velazquez and Julian Magras and
25 Graciela.

26
27 **CARLOS VELAZQUEZ:** Congratulations, Michelle, and good job. Do
28 you not see these aggregations for December and just January to
29 May?

30
31 **MICHELLE SCHARER:** That's correct. The recorders that we have
32 there do not detect the reproductive behavior during December at
33 these sites.

34
35 **CARLOS FARCHETTE:** Julian Magras.

36
37 **JULIAN MAGRAS:** A question going back to the picture where you
38 had all of the fish inside of the trap where you said that you
39 only tagged eleven fish for that season. Inside of that trap,
40 there is nine or ten fish, and why was only eleven fish tagged
41 if that one trap alone had nine to ten fish? That's my first
42 question?

43
44 **ELIZABETH KADISON:** Those tags are very costly. We could only
45 purchase eleven of them.

46
47 **JULIAN MAGRAS:** Okay. I think you should request from the
48 council that you can get some more money to get some more of

1 these tags, so my fishery can hurry up and open back up, because
2 that yellowfin bank is actually where I used to make a living
3 before. Then my next question that goes out to you guys is have
4 you guys studied anywhere inside of the MCD for the spawning of
5 the Nassau, because there are spawning spots inside of the MCD.
6 It's different in the Grammanik Bank.

7
8 The Grammanik Bank is the Grammanik Bank, and that's not the
9 true grouper bank. It's inside of the MCD, and I want to know,
10 when are we going to hear some information on what's going on
11 actually in that spawning aggregation, which, back in the days
12 of Dr. Olsen and Joel LaPlace, who used to actually do the
13 diving of those banks, they used to record 2,000 or 3,000 fish.

14
15 If we're seeing 400 or 500 fish outside of the actual
16 aggregation side, where they used to come up, as a fisherman, I
17 would think that in the actual spawning site that there are over
18 2,000 fish in that area.

19
20 **MICHELLE SCHARER:** That was research that we conducted in 2013,
21 and it was presented to the council and we put the first
22 recorder at that site, because of the historical Nassau grouper
23 site.

24
25 **ELIZABETH KADISON:** Julian, we want to find it as much as you
26 do, and we have had Dr. Olsen who has been out with us to the
27 old historic -- The problem is that we we think we have the site
28 that was used by the Nassau grouper in the past. We've done
29 surveys there, and we've seen all kinds of fishing gear there,
30 old traps and anchors, et cetera, and we have had a couple of
31 different older commercial fishermen take us to the site that
32 they've fished Nassau grouper in the past, and we have seen some
33 fish out there, but certainly nothing like what we see on the
34 Grammanik Bank.

35
36 Certainly we need more technology to help us find that site, if
37 it has come back or if it exists and we're just not going to the
38 right spot, but, if you have a good location, we're all ears for
39 that.

40
41 **CARLOS FARCHETTE:** I have Graciela, and then I have to move
42 forward.

43
44 **MICHELLE SCHARER:** Just to follow up on that, we're also
45 expecting that perhaps we don't see them when we go. We also
46 had a recorder there, and we did not pick up the sounds that we
47 pick up at the Grammanik, and so something is going on there.

48

1 **CARLOS FARCHETTE:** Graciela.

2
3 **GRACIELA GARCIA-MOLINER:** You mentioned the fact that they are
4 moving off the shelf and most likely into deeper water, and so
5 I'm wondering if you guys are keeping track of any of the
6 parameters to determine if anything in the variability of the
7 seawater temperature might be influencing the changes in the
8 water column that might be driving changes in where the fish
9 actually spawn, because definitely that would have an impact,
10 especially when they need that change in pressure to actually
11 spawn.

12
13 **ELIZABETH KADISON:** Yes, right, and it's interesting that we've
14 put out a thermistor string, a string with, I think, every ten
15 meters, we have a temperature HOBO, and that data has not been
16 analyzed yet. Right at the edge of the Grammanik Shelf, it's a
17 pretty steep drop down to 220 feet, and then it flattens out and
18 there is a big Agaricia, a big coral bed, down there that we've
19 started monitoring.

20
21 It's quite beautiful, and we have actually, on rebreathers,
22 followed the fish down that deep, and they sort of -- They go
23 down to that big flat reef that's down at 220, and they kind of
24 stop there and hang out there, and so I'm not sure, but we are
25 trying to get more technology down there and more instruments.

26
27 **CARLOS FARCHETTE:** Thank you both. That was a nice
28 presentation. Maybe sometime in the near future we can do
29 something at Lang Bank, because there is anecdotal evidence that
30 Nassau grouper are coming there. Next, we have Ricardo Lopez
31 will handle the 2015 Spiny Lobster Survey Results and the
32 Pelagic Fish Distribution.

33
34 **2015 SPINY LOBSTER SURVEY RESULTS AND THE PELAGIC FISH**
35 **DISTRIBUTION**
36

37 **RICARDO LOPEZ:** Good afternoon, colleagues. This is a
38 presentation that was prepared by Veronica Seda and Aida
39 Rosario, and I am giving the presentation on behalf of Aida,
40 because she cannot be here today, and so she asked me to give
41 you the presentation. I made some edits in order for me to
42 understand what I was going to talk about, and I hope that I can
43 answer all the questions, and so let's see how it goes.

44
45 As I understand the presentation, I understood that the main
46 purpose of this study was to collect data of planktonic to
47 settling post-larval puerulus and shelter-restricted juvenile
48 stages. As you can see in this slide, you have two pictures,

1 and I divided both pictures in order to show you which are the
2 puerulus larvae stages that we were trying to study in this
3 SEAMAP project.

4
5 This is a picture, two pictures, of puerulus larvae, so you can
6 see how small those larvae are, and a description that tells you
7 how they move in the ocean, in the water column. Eventually
8 they settle onto the bottom.

9
10 The objectives and methods, they used two different methods. In
11 the top picture, you can see the casitas. Probably you have
12 listened about the casita many times. This is my third time,
13 but the casitas were checked between December of 2014 and 2015.
14 Those casitas are kind of castles made by bricks, cement bricks,
15 ordinary cement bricks, and they usually get covered by sand and
16 debris and some algae, and the biologists try to keep those
17 casitas above the sand by placing more bricks in the top.

18
19 The idea is to provide these little holes that you can see here
20 for the juvenile lobsters, so they can be sheltered in this area
21 and protected from predators, but, as you're going to see later,
22 predators will know more than us.

23
24 The second method is for the larvae, and so these are small
25 lobsters. There is larvae and then juveniles. This study, the
26 results are from April of 2015 to March of 2016, and you can see
27 the collectors here in the water column. They put the
28 collectors in two different depths, that you're going to see
29 later.

30
31 In this map, we can see where the casitas were set during this
32 period. You can see casitas in El Negro, Bramederao, El Ran,
33 Fanduca, Combate, and Punta Aguila. Eventually, you're going to
34 see that these three areas here that are more to the north are
35 kind of different from the others.

36
37 As far as I know, the casitas were tried also in the U.S. Virgin
38 Islands, but apparently they haven't been functioning as well as
39 in Puerto Rico, but we don't know why yet. In this graph, you
40 can see the mostly detection of juvenile spiny lobster per site,
41 and so, on the bottom, you're going to see the legend of the
42 different sites.

43
44 Combate, they didn't start in December. It started in January,
45 and so this is a mistake. This is an error here. It should
46 start here. As you can see, the northern sites had the highest
47 detection of juvenile lobsters, and these are these three. We
48 don't know why that happened, but that's what we get. You can

1 see also the months with the highest detections are between
2 September and December of 2015.

3
4 The total juvenile spiny lobster detected in 2015 at the
5 casitas, again, you can see in January we started in Combate,
6 but all the others started in December of 2014, and, again, the
7 highest detection was between September and December of 2015.

8
9 In this graph, we can see a comparison of 2008 and 2015. It is
10 a positive correlation and significant, and so both are kind of
11 behaving the same way. Here, you see the juvenile spiny lobster
12 carapace size classes per size. You have the size in this
13 column and the different sizes on the top. You can see that the
14 most detected carapace size classes were between 0.5 and 1.5
15 inches. At Bramederao, El Ron, and El Negro, they are still the
16 sites with the highest detections. I asked myself if they refer
17 to depth, water turbidity, temperature, or changes in some of
18 these other variables, and I don't know. Maybe that's a
19 question that we should address later.

20
21 The juvenile spiny lobster most detected carapace size class and
22 two predator sites -- As I said, we are trying to provide
23 shelter for these juvenile lobsters, but we have been finding
24 more eels and octopus. Moray eels are a predator of octopus,
25 and octopus are a predator of juvenile lobsters, and so I took
26 some time yesterday to compare the most common sizes with the
27 results of octopus and moray eels, to see if we can see any
28 correlation, and these are the results.

29
30 You can see that there is a strong correlation, a negative
31 strong correlation, between moray eels and 0.75 carapace size,
32 and I don't know what that means, not yet, because this was done
33 yesterday, but I am going to talk to Aida and Veronica to see if
34 they have any answers to this.

35
36 Also, we have this strong correlation, but not as significant,
37 and also these two strong correlations, but not as significant
38 either. In this case, it's the octopus and the moray eels, and,
39 in this case, it's the moray eels and the lobsters. Here are
40 the results.

41
42 Again, as we are looking now for octopuses in these casitas, I
43 asked to myself how important is the octopus fishery in Puerto
44 Rico and the USVI, and are these casitas providing any
45 information that can help to deal with the question of the
46 octopus in Puerto Rico and the U.S. Virgin Islands? As a note,
47 contrary to many other marine species, the Cephalopods, the
48 squids and the octopuses, are increasing in numbers worldwide.

1
2 Here, we can see a graph of sites versus number of individuals,
3 and you can see that Fanduco is kind of the mecca of the
4 octopuses. There are a lot of octopuses there. In this other
5 graph, we can see that there is a like the lowest point, below
6 average, in both years, and I don't know if there is any
7 seasonality in octopuses, but, for me, it was kind of rare to
8 have that in both years. I guess that that only shows you how
9 little I know about these animals.

10
11 The study, as I understood, was not designed to compare juvenile
12 spiny lobster detected in casitas among the different moon
13 phases. However, they did the comparison, and I highlighted
14 that because I think that they didn't address this study like we
15 are going to. We are going to take a uniform sample in every
16 moon phase, like taking ten samples in every moon phase. They
17 didn't do that, and I think it was more opportunistic, and so
18 that's why I am highlighting that this is post-hoc and it was
19 not part of the original study, as I understand it.

20
21 Detections per site per moon phase, this is a huge peak here in
22 El Negro, and Veronica believed that that was a unique moment of
23 bad weather and that all the juveniles of the lobster spread to
24 that area to protect themselves from the bad weather. However,
25 most of the detections were in these two moon phases, in the
26 last quarter and the new moon, and I'm not sure about how that
27 compared to other years or studies, but, as far as I know, the
28 new moon appears to be an important moon phase in many places.
29 Here, again, the last quarter and new moon were the phases where
30 almost all size classes were detected.

31
32 Here, these are two different maps, but it's the same area.
33 This is in 2008, and this is in 2015, and this sample site, we
34 don't know for sure the coordinates, and that's a thing that
35 Aida would like to add to this later, to see if NOAA can provide
36 us with the satellite coordinates of those places, and so these
37 are more like an estimate, and these are the ones in 2015.
38 Again, this is a photograph of the collectors, and now we are
39 talking about the larvae. You can see the highest abundance
40 here, apparently, from the first month in this graph, from April
41 to June, and this appears to be a second peak between November
42 and February.

43
44 In this graph, it was interesting how these become -- There's
45 like a big decline of all stages. The trans pigmented was the
46 least detected stage, while the pueruli was the most detected
47 stage in all of the areas.

48

1 This is another post-hoc comparison of spiny lobster larvae
2 detected in collectors per moon phase and depth, and you can see
3 that there is higher detection in deepwater collectors, and you
4 can see it here in this graph, and this is very small. This one
5 comes up to sixty maybe, less than sixty, and probably fifty,
6 and this one comes up to probably close to 120.

7
8 I was looking at this very late at night, and I saw that these
9 collectors all have samples in the first quarter. The most
10 detection in the first-quarter moon phase were in further
11 offshore collectors, and you can see them here. The offshore
12 collectors did have more detections in the moon phase, and, when
13 I read a little bit about that, I was expecting otherwise. I
14 was expecting collectors with higher sampling in close to shore.

15
16 In these two moon phases, we can see, with juveniles, the most
17 detection in these moon phases, where it was the larvae, and
18 here is the comparison of spiny lobster larval stages detected
19 in collectors per depths, and, again, we have the offshore
20 collectors here, and we have them here, where we have the
21 highest detections, and, again, the deep collectors have a lot
22 compared to the shallow collectors.

23
24 These are the issues brought by Aida to be considered. She
25 understands that our records of the casitas in 2003 does not
26 have coordinates. With those coordinates, we can compare the
27 2003 data with the new one, and she would like to know if NOAA
28 can help with that.

29
30 Collector stations in 2009, and I think this is an error and it
31 should be 2008, does not coincide with the 2015 sites, as I
32 showed you in the two maps, and, again, she is asking NOAA for
33 help on that. She also asked if we should consider to increase
34 the study area to sample the east coast, as there are some
35 students and professors, teachers, interested at the UPR at
36 Humacao. That is the end. Any questions?

37
38 **CARLOS FARCHETTE:** Jack.

39
40 **JACK MCGOVERN:** I had a question about the larval collectors.
41 How are those constructed? Are those air-conditioning filters
42 or --

43
44 **RICARDO LOPEZ:** It looks like that.

45
46 **JACK MCGOVERN:** Yes, I was just wondering, and I was wondering,
47 did you see anything else in there besides lobster larvae, like
48 grouper? I'm just wondering, because when I was with South

1 Carolina DNR in the 1990s, we used those to collect gag, to try
2 to come up with some kind of a recruitment index for that
3 species, and I was just wondering if you saw groupers in there
4 too.

5
6 **RICARDO LOPEZ:** I am not sure about the groupers, but I know
7 that they have a lot of larvae, a lot of deeper larvae, in those
8 collectors of fishes.

9
10 **GRACIELA GARCIA-MOLINER:** Have we made an attempt to connect the
11 fishery-independent surveys of juveniles with any kind of
12 fishery-dependent data that we might have, in terms of if we
13 have so many juveniles that we can extrapolate to like how much
14 lobster we should be harvesting from that area?

15
16 **RICARDO LOPEZ:** Not yet, but that's part of the plan. When I
17 started in the Fisheries Research Lab, that was my first
18 question, was how can we connect all the independent data
19 projects with the dependent sampling projects, and we haven't
20 done that yet, but I think that, if we plan that, that we can do
21 it.

22
23 **CARLOS FARCHETTE:** Marcos.

24
25 **MARCOS HANKE:** Ricardo, I am pretty sure about the answer, but I
26 will ask you to help Aida and Veronica and yourself and look for
27 a way to find similar studies of recruitment of larvae on other
28 places and try to guide us, the council, in terms of recruitment
29 at those levels or create that level that says a hundred larvae
30 per whatever period of time is acceptable and over time is not
31 acceptable or something like that, that we can see that that
32 recruitment on that year can give us answers of what is going on
33 with the next landings and the rest of the lobster dynamics, and
34 I will be interested to see if there is something similar done
35 in other places in the Caribbean that we can compare.

36
37 **RICARDO LOPEZ:** Yes, and, when I talked to Aida and the
38 colleagues of SEAMAP, the answer is that the project is designed
39 to collect data. It's not designed to do analysis, although I
40 am very interested in the analysis and the comparison among
41 years and among different studies, and so I will be looking
42 forward to doing that.

43
44 **CARLOS FARCHETTE:** Thank you, Ricardo. I think you have another
45 presentation or no?

46
47 **MIGUEL ROLON:** No, you had your presentation.

48

1 **CARLOS FARCHETTE:** No, the pelagic.
2
3 **RICARDO LOPEZ:** I have the pelagic and the enforcement.
4
5 **MIGUEL ROLON:** No, the enforcement is later.
6
7 **RICARDO LOPEZ:** Shall I continue?
8
9 **CARLOS FARCHETTE:** We will let Ricardo finish the pelagic and
10 then we'll take a quick, ten-minute break and then he will get
11 into the enforcement issues. All right. The pelagic.
12
13 **RICARDO LOPEZ:** Okay. Some of the colleagues asked me to give
14 you some information of what I did for my PhD thesis, and so I
15 decided to pull from my PhD dissertation some information that
16 is more convenient for what we do in this meeting, the
17 information that will be related more to commercial fisheries.
18
19 My study in this PhD dissertation was using the three different
20 species of seabirds that are kind of unique in terms that you
21 can only have them nesting and resting together on Monito
22 Island. To go to Monito Island is for me like to go to the moon
23 and collect stones. It's very difficult. You are going to see
24 that later, I hope.
25
26 What I did at that time was to collect stomach contents from the
27 three different sulidae, and we are talking about the masked
28 booby, the brown booby, and the red-footed booby. We can call
29 them sulidae species, and why did I decide to study those
30 species? One of my main objectives was to show if those species
31 can tell us what is going on in the epipelagic areas of the
32 ocean. In terms of paying for a big boat or different fishermen
33 to collect samples in the epipelagic zone, and I am talking
34 about the subsurface zone of the ocean, we have these birds with
35 night vision flying and looking for fishes, so they can eat and
36 survive.
37
38 I learned, when I went to Monito in another project, and we were
39 controlling rats, in order to keep the Monito gecko alive, which
40 is an endangered species, and we are planning now to delist the
41 Monito gecko, the federal and state list, but, when I was there,
42 I noticed that these seabirds, when they saw me, they
43 regurgitate immediately. I would think that I was very ugly,
44 but, no, they do that with everybody, and so I started studying
45 why they did that.
46
47 They do that with every potential predator. As you can see,
48 there are some big seabirds called frigate birds, which are

1 pirates, and they will follow these sulids and attack the sulids
2 until the sulids regurgitate in the air, and then they try to
3 catch this regurgitation, these fishes and squids, in the air,
4 or at least in the top of the surface, and so I guess that that
5 is kind of an adaptation of don't touch me, don't kill me, and I
6 will give you my food, and they do that very fast.

7
8 I tried to collect as much of those vomits as possible. I
9 brought my little Igloo and a lot of blue ice and carried the
10 Igloo to all over the island collecting vomit, but that was not
11 the difficult part. The difficult part was to take the vomit to
12 the Fisheries Research Lab and then hoped that everybody looked
13 to you.

14
15 **MIGUEL ROLON:** Do you have any other scientific word for vomit
16 that you can use?

17
18 **RICARDO LOPEZ:** That is the only one that I know. To go to
19 Monito is very difficult. It's very opportunistic. You need a
20 boat or a vehicle to take you to Mona Island and then hopefully
21 you have a little boat to take you to to Monito Island, and then
22 the water has to be calm enough for you to jump from the boat to
23 the wall of the island, and don't slide, because, if you fall
24 into the water, you have to go again to the boat and try again
25 to jump, all wet, and so you start climbing, and you take all
26 your gear to the cave, avoiding the sun and trying to save as
27 much water as possible.

28
29 Then, during the night, you walk through the island, which is
30 very difficult. You don't see anything, and you need a
31 flashlight, of course, and you have to avoid the sulids and many
32 other animals and collect what you were planning to collect. I
33 did four night visits, and I was aiming, or looking forward, to
34 at least one of those nights to be there during the breeding
35 season of each of the species, of the sulid species, which I
36 did.

37
38 Then, for example, processing, I took all the samples to the
39 Fisheries Research Lab, and then I used the FAO guides in order
40 to identify those to the lowest taxonomic level, and most of
41 them were identified to the species level and some of them only
42 to the family level.

43
44 It was very interesting, because many of the regurgitations have
45 only pieces of a fish or pieces of a squid, and so you have to
46 learn that this tail of this fish belongs to this kind of fish,
47 and then you have some others that were complete, and you can do
48 a regression and extrapolate, and so you know now that that

1 piece of tail belongs to a fish of this size. With that
2 information, you can estimate the volume and the length of each
3 of the items, each of the organisms.

4
5 This is Monito Island. Those are our colleagues from the Coast
6 Guard, which they are not here now, but you can see, in the top,
7 and I think those are our friends from the Dominican Republic
8 right there. As you can see, you have to take the boat very
9 close to that wall and jump from there to the wall and start
10 climbing until you get to the top. This is what the top looks
11 like. This is Monito Island, and this is the location right
12 here.

13
14 One of my enemies, or one of the difficult parts was to keep
15 those vomits, which were already warm, and I have to keep it
16 cold, and we don't have electricity there, and so I have to be
17 very careful with the blue ice and whatever I have to keep them
18 as cold as possible.

19
20 As general results, facts, I sampled 984 organisms collected
21 from the regurgitations of fishes and squids. There were about
22 thirty-four species of fish identified, and food appears very
23 abundant. None of the regurgitations, none of the birds that I
24 sampled, were empty stomachs, and none of the birds had
25 inorganic items in their stomachs, and so apparently the food is
26 available and apparently they are eating healthy, which can give
27 us maybe -- We can extrapolate that, and maybe we can think that
28 probably food is available also for wahoo, for dolphin, for
29 yellowfin tuna, and that is the question. Can these birds help
30 us to know if food is available also for commercially-important
31 fishes?

32
33 On average, the population consumed about seventeen organisms
34 per bird per day, which is a lot. You can see here this is the
35 masked booby, and this is the biggest, the largest, and the most
36 rare. Here, you can see an adult. This is a sub-adult, a
37 juvenile, molting and probably getting close to being an adult,
38 and you can see them here fishing. You can see the frigate bird
39 attacking a masked booby and trying to collect what they have in
40 the stomach.

41
42 This is the most pelagic also. This one is the one that goes
43 more offshore, with the red-footed booby, which you're going to
44 see later, and they eat mostly flyingfish, but mainly this kind
45 of flyingfish, which is a huge flying fish. It's very big.
46 This is the clearwing flyingfish. They have, and this is part
47 of the research, about six preys per day, and an average of two
48 regurgitations. I only collected one regurgitation, and so they

1 still have one to survive.

2
3 Here is the red-footed booby, and you can see why they call it
4 that. This booby has two faces, and so you have to be very
5 careful to identify properly the right one. You can see the
6 white face of the red-footed booby is very similar to the masked
7 booby, except for the size, which is the smallest of the sulids,
8 and for the color, and this is the brown face.

9
10 Other differences are that, although sympatric, in terms that
11 they are nesting and resting on the same island, they are
12 allopathic, in terms of where do they nest, in terms of
13 microhabitat. For example, only the red-footed booby nests in
14 trees and shrubs, while the masked booby nests in the floor.

15
16 This is the smallest, but it is also very pelagic. It's very
17 rare, and not as rare as the masked booby, but very rare. In
18 fact, this species was extirpated, or diminished completely, in
19 Desecheo Island, probably because of exotic animals. Desecheo
20 used to have monkeys and rats. This one will feed on flyingfish
21 and flying squids, and they have about sixteen preys per day, or
22 three average regurgitations, and this is the main prey, the
23 sailfin flyingfish. As you can see, it's very similar to the
24 fourwing flyingfish, which has two on the top and two on the
25 bottom. It's smaller, much smaller. It's about half of the
26 other flyingfish.

27
28 Now you can see that, when they are feeding, they are feeding
29 from different stocks. This one is feeding from small fishes,
30 but very pelagic, and the other one goes as well very pelagic,
31 but is feeding from big fishes, and this one, the brown booby,
32 stays very close to shore. It's still oceanic, but close to the
33 islands, and so the three species are feeding in three different
34 areas.

35
36 This is the brown booby, and it's the most common. It's a
37 medium-sized booby, and it's very generalist. The stomach
38 contents have all kinds of fishes and squids, with about
39 nineteen preys per day, or three average regurgitations, and it
40 will feed from a great range of fishes and squids and different
41 sizes and species. The main items are the jacks, especially the
42 mackerel and the scad, which is right here.

43
44 This is very interesting, because the other two species used to
45 dive, and they can swim underwater a lot and very deep, and this
46 one also can do that, but this one can stay like a duck on the
47 surface and just dip the head and pick things from the surface.
48 At one time, one of these regurgitations has about eighteen

1 small pufferfish, and there is no way that this animal did
2 eighteen dives. That animal just stayed there and picked the
3 little pufferfish and ate them.

4
5 Then how these animals -- What kind of data did I collect that
6 can tell me anything about the important commercial fishes,
7 which are also pelagic? I compared the wahoo, the common
8 dolphinfish, and the yellowfin tuna diets, and, first, I used
9 these three species because they were the most reported in
10 western Puerto Rico, and, also, I managed to get the data from
11 reports from the eastern Caribbean, north and tropical Atlantic
12 Ocean, and offshore Brazil. We didn't have any information
13 close to Monito. We didn't have any information close to Puerto
14 Rico at that time from the diet of those fishes, and so that was
15 what was available.

16
17 As you can see, these are the most-landed fishes, and these are
18 the sula species, and the ones that have more affinity was the
19 brown booby and the common dolphinfish. Common dolphinfish have
20 48 percent, which was the highest of the percentages. It was 48
21 percent of the prey families also regurgitated by the brown
22 booby, and the brown booby, 48 percent of the prey families are
23 also reported in dolphinfish.

24
25 The second one mostly related was the common dolphinfish and the
26 red-footed booby, and so we can expect that the two species of
27 booby, which looks kind of brown, both, except for the white
28 face of the red-footed booby, are the ones that we can expect to
29 be following or have any affinity with the common dolphinfish.

30
31 The common dolphinfish is landed about two times the amount of
32 yellowfin tuna in western Puerto Rico. Even so, in Hawaii, it
33 was reported that the yellowfin tuna also has an affinity with
34 the sulids, but it's a small affinity, and so maybe what is
35 happening in Puerto Rico is, as all of these species are
36 seasonal, maybe the yellowfin tuna provides a moment to have an
37 association with the seabirds, and, when they yellowfin tuna are
38 not there, the dolphinfish are not there and then the affinity
39 is at that time. That is the end. Any questions?

40
41 **CARLOS FARCHETTE:** First, I was beginning to wonder about flying
42 squid, and Miguel showed it to me on the computer there. I had
43 never heard of a flying squid. He showed it to me, but I was
44 beginning to wonder about you when I heard flying squid. Tony.

45
46 **TONY IAROCCI:** Thank you, Mr. Chairman. Thank you for that.
47 It's very important to do this kind of research when it comes to
48 spiny lobster. In Florida, to your point, we do use the

1 collectors, and they are -- They are pulled or checked on the
2 quarter moon, because the most activity, as you can see in the
3 slides, are on the new moon. Instead of doing it weekly, they
4 do it the week after the new moon, because they're there on
5 that, instead of doing it every week.

6
7 Now, that collector -- In Florida, they keep the collectors
8 clean. The cleaner the collector, the easier it is to get the
9 animal out of there, and they do use the collectors for future
10 data, to try to come up with what to catch. The more pueruli,
11 supposedly, the better catch for the following year, and so
12 hopefully we can, through the research and the program we do in
13 the future, hopefully we can do some more of this stuff with the
14 collectors.

15
16 My question is why -- Are you just doing the comparison or using
17 the casitas, because the collectors -- You do have a lot more
18 bycatch, or bykill, in the pueruli, like you talked about with
19 the octopus with the casitas, and are you still going to keep
20 using both methods?

21
22 **RICARDO LOPEZ:** The casitas are used for juveniles, and the
23 collectors are used for larvae.

24
25 **CARLOS FARCHETTE:** I have a question. Those collectors, when
26 you remove them to get the pueruli, is that a few, hundreds,
27 or thousands that you're taking out of there?

28
29 **RICARDO LOPEZ:** I don't know the answer to that question. I
30 don't know that.

31
32 **CARLOS FARCHETTE:** Okay. Marcos.

33
34 **RICARDO LOPEZ:** I could guess hundreds, but not thousands.

35
36 **MARCOS HANKE:** I have two comments. One, for what Tony just
37 said, this is a SEAMAP study that is conducted in Florida?

38
39 **TONY IAROCCI:** No, this is Tom Matthews working with the state,
40 with FMRI.

41
42 **CARLOS FARCHETTE:** Okay. Richard.

43
44 **RICHARD APPELDOORN:** My comments on the birds sampling are I
45 believe that it was this type of study, using birds that were
46 nesting in the Dry Tortugas, that was first identifying the Gulf
47 of Mexico as a major nursery area for things like bluefin tuna,
48 and so then people went out and started doing larval surveys for

1 them, but they were showing up first in the diets. They were
2 not the major thing there, but there was a definitely
3 seasonality to it.

4
5 Was there anything similar that you saw in your study in terms
6 of larval fishes that had a seasonality that might say that the
7 area around where the fish were spawning is an important nursery
8 area for some of our big pelagics?

9
10 **RICARDO LOPEZ:** Yes, and, in that study, I just showed you the
11 main prey, but there were many other different prey, and one of
12 them that really stumped me, and I was not expecting that, was
13 the post-larval stages of goatfish, which are species that we
14 don't know anything about that. We don't know anything about
15 these post-larval stages of goatfish.

16
17 When they appear, they appear in great amounts, and the same
18 happened with the pufferfish and other fish that apparently were
19 opportunistic, probably because of the movement or eddies or
20 whatever, but they appear and the seabirds collect them.

21
22 **RICHARD APPELDOORN:** (Dr. Appeldoorn's comment is not audible on
23 the recording.)

24
25 **RICARDO LOPEZ:** I don't know that.

26
27 **CARLOS FARCHETTE:** Okay. Thank you, Ricardo. Bonnie.

28
29 **BONNIE PONWITH:** I would just say that the fish presentations
30 are always fascinating, and it's quite nice to see something
31 about birds.

32
33 **RICARDO LOPEZ:** Thank you.

34
35 **CARLOS FARCHETTE:** Thank you, Ricardo. I am going to keep
36 pushing forward. I know I said about a break, but I am running
37 out of time, and so I'm canceling your break. If you need to
38 stand up and stretch or go outside, but we're going to push on
39 forward. We are going to Enforcement Issues with Bottom-Tending
40 Gear: Legal Definition of Gear, Regulations in Place in
41 Seasonally-Closed Areas in the EEZ with Lynn Rios.

42 43 **ENFORCEMENT ISSUES**

44 **BOTTOM TENDING GEAR: LEGAL DEFINITION OF GEAR, REGULATIONS IN** 45 **PLACE IN SEASONALLY-CLOSED AREAS IN THE EEZ**

46
47 **LYNN RIOS:** Good afternoon. I am Agent Rios with NOAA
48 Fisheries. I am doing a presentation in regards to the closed

1 area of Bajo de Sico and a letter of concern that was sent to
2 the Chairman of the Caribbean Council by a fisherman from Rincon
3 who was using buoy gear in the area of Bajo de Sico and is
4 requesting clarification as to if this gear can be used or not.
5 Closed areas of the west coast, Bajo de Sico and buoy gear, or
6 cala con boya is what the local fishermen call it.

7
8 The incident happened in April of 2016, and so he was fishing in
9 Bajo de Sico, outside the closed season, and so he was able to
10 fish there. He was fishing for deepwater snappers, and the guy
11 is from Rincon, and his name is Mr. Edwin Font, known as Pauco.
12 He was using buoy gear, or cala con boya, in the northeast
13 boundary of Bajo de Sico. At that time, there were state
14 officers doing their patrols in the area, and they came up to
15 him to do a boarding, and they were advising him that he could
16 not fish with this gear inside the closed area, because it is
17 prohibited.

18
19 Then he was asked to remove his fishing gear from the water and
20 release any catch. Since he had just gotten there not too long
21 ago, he complied with the instructions from the state officers
22 and removed his gear, and then he released the few fish that he
23 had on the line. This boarding did not result in any case
24 referral to NOAA, but Bill Arnold sent us the information and
25 wanted us to look into it, so that we could get the council to
26 clarify it.

27
28 Here we have a snapshot of the Bajo de Sico itself, and you see
29 where the incident took place, when he got boarded, and the
30 request is are fishermen using buoy gear in Bajo de Sico? How
31 are they using it, and is buoy gear a prohibited gear in Bajo de
32 Sico because it is not named as one of the gears prohibited in
33 the regulations?

34
35 We have the west coast, where people are fishing for red
36 snappers and deepwater snappers, and we have the three area
37 closures of Bajo de Sico, Tourmaline, and Abrir la Sierra. This
38 is where the incident happened, and then the deepwater snapper
39 buoy gear, or cala con boya, basically what the guy uses, we
40 went and had an interview with him, so we could figure out
41 exactly what happened and so forth.

42
43 He uses a weight, or a potala, which is what they call it here,
44 and it's about eight pounds. It's made out of two rebar with a
45 leader. He has a main line with hooks, about twenty hooks,
46 eighteen inches apart, with a swivel, so it doesn't get tangled
47 up, and then that's tied up to another line with a yo-yo that's
48 attached then to the main line that goes to the bandit gear. He

1 uses two sets of buoys that holds the fishing line, and the
2 second one holds the yo-yo, and they're fishing more than one
3 line at the same time.

4
5 Here, you have an example of what the weight is. It's very
6 inexpensive. It's just two pieces of rebar tied together with a
7 leader line to go to the main line, and then you see the little
8 line coming up and then the main line where it's got the hooks.
9 There is the leader line right there.

10
11 By design, the leader line is a lot thinner, and so, if the
12 weight gets stuck at the bottom, they can just pull it and they
13 don't lose their gear, and so we have here Pauco showing us --
14 This a brand-new set that he just had in his boat, and the other
15 one had bait on it, and so it was in the freezer, but he was
16 kind of enough to show us his main line basically with the
17 twenty hooks on it.

18
19 Then this gets attached to the main line, to the bandit gear, so
20 it can be retrieved, and so here are the two sets of buoys that
21 he puts on his equipment, and so, basically, we have the
22 regulations for the Department of Natural Resources under which
23 the state officers were operating. Under the definitions in
24 Article 4, it just defines -- It's a very broad definition of
25 what a palangre, or a longline, is, and it just says that it
26 consists of gear that consists of a longline with baited hooks
27 on separate lines which can be anchored or left to drift, and so
28 it's pretty broad. I am thinking that, based on this
29 definition, it's what they were looking at when they saw the
30 equipment.

31
32 The same under the regulations of the Department of Natural
33 Resources. It says the limitations on fishing, and it shows the
34 Bajo de Sico, but it makes very clear that it's for benthic
35 longline, and so it's bottom longlines, and this type of
36 longline goes from the top all the way straight to the bottom,
37 and so it's not dragging across the bottom.

38
39 In our sub-part, 50 CFR 622, our fishing regulations, it does
40 the same thing, but, when it defines the longlines or the
41 equipment that is prohibited to be used in the Bajo de Sico, it
42 makes clear that it's no pots, traps, and bottom longlines,
43 gillnets, trammel nets, and they're prohibited year-round. His
44 argument is that his gear, the buoy gear, is not defined within
45 the regulations.

46
47 This is a drawing that he had made, that I had him make, so that
48 he could explain to me how the buoy gear works. I am under the

1 impression that this thing is laying across the bottom, but he
2 says it's not. We have here the rebar, and then we have the
3 twenty fishing lines, and we've got the swivel, and then we go
4 to the main line and the two buoys that hook on it. This is
5 kind of a drawing where I said, well, show me what you think the
6 bottom looks like.

7
8 Then he said it's just sets of little mounts. I asked him, I
9 said, well, wouldn't this fishing gear be dragging across the
10 bottom and disturbing the habitat, and he said that -- His
11 answer was no, that, for the most part, that the rebar would get
12 stuck in between the little mounts and any time, either by
13 current or by any time they wanted to retrieve it, that the
14 weight, instead of dragging across the bottom, because the
15 pressure was so much, it would actually bounce from area to
16 area, and it could be up to maybe fifty feet or more every time
17 it bounced.

18
19 Out of the interview, this is the information that we got. They
20 said that they only fish at Bajo de Sico if the currents allow.
21 As it was said earlier, the currents at Bajo de Sico are really
22 strong, and so they try to only fish Bajo de Sico with buoy gear
23 whenever the currents allow them. They fish outside the Bajo de
24 Sico platform, because they're fishing at 125 fathoms to 200
25 fathoms. They fish for deepwater snappers, like I said, from
26 125 to 200, and they said they do not fish any shallower, for
27 fear of losing the gear due to entanglements or sharks.

28
29 Then they say that the gear doesn't drag through the bottom and
30 that it bounces, and he says that he's got 380 other locations
31 where he can actually fish for deepwater snappers, and so the
32 only time he would fish at Bajo de Sico is if the conditions
33 allowed him to.

34
35 He says there is really good communication among fishers, and,
36 once they're out there, the deepwater snapper fishermen share
37 information about where the fish are biting and what the
38 conditions are, and so they try to avoid areas, to avoid
39 spending time and money to go into areas where they would not be
40 successful for fishing that day.

41
42 Again, he says that he's fishing outside the 100-fathoms,
43 because he fishes at 125, and so he's trying to argue the fact
44 that he is not affecting the area that we're trying to protect.
45 Any questions?

46
47 **CARLOS FARCHETTE:** Miguel.

48

1 **MIGUEL ROLON:** Lynn, a couple of things. Several years ago, a
2 fisherman who used to be living in Culebra, and he invented,
3 quote, unquote, the --, and he argued that that vertical
4 longline was supposed to be -- In order for that gear to be
5 vertical, you have to have a hell of a buoy there, and you have
6 to make sure that the line is only enough to hit the bottom, but
7 usually what he does is he goes like this, like a J, and so it
8 becomes a bottom longline and not a vertical longline, and he
9 told us, at that time, that that's why he -- It's a PVC, twenty
10 feet or twenty-five feet, and it's anchored -- Not anchored, but
11 it's just a weight at the bottom, and then you have a line.

12
13 No matter how much line you have, it is always vertical, and,
14 for this one, I remember the question, and we had some telephone
15 calls, is, especially for Iris, is can this be constituted as a
16 bottom longline, as is presently prohibited in Bajo de Sico?

17
18 **IRIS LOWERY:** I will defer. We have Loren Remsberg, who is our
19 enforcement attorney, who is here, and so I'll defer to her on
20 that.

21
22 **LOREN REMSBERG:** I don't believe the Caribbean regulations, as
23 written, prohibit buoy gear, and I don't believe that this gear
24 can be defined as bottom longline, given the definitions in the
25 regulations. In contrast, the regulations in the Gulf that are
26 designed to protect coral reefs specifically prohibit buoy gear
27 in addition to bottom longline gear, and so that is my
28 interpretation, given the way that the regulations in the
29 Caribbean are written.

30
31 **MIGUEL ROLON:** Very quickly, we need to know what is the
32 pleasure of the council. Should we leave it as is, or do you
33 want to modify the regulations that we have to prohibit the buoy
34 gear also?

35
36 **CARLOS FARCHETTE:** Blanchard.

37
38 **TONY BLANCHARD:** Lynn, could you bring up the picture of the
39 rig? Really, how this is set up, I can't see this as destroying
40 the bottom, for the simple reason that Lynn explained. You have
41 a piece of rebar, and correct me if I'm wrong, to the bottom,
42 right?

43
44 **LYNN RIOS:** Yes.

45
46 **TONY BLANCHARD:** So what happens is it's going to hit, and it's
47 going to bounce, just like he says, and the whole idea behind
48 this is they don't want to lose their gear, number one. Number

1 two, if they're sticking on the bottom, they're losing their
2 gear, and that's why they fish it in deeper water to avoid the
3 sharks, because the sharks ain't going to sit in the deeper
4 water like that, and so he is absolutely telling you the truth.

5
6 With the setup that is there, I can't see it being a longline.
7 I think it's going to hit just like he said, and, although I've
8 never used it, I would suspect, just from what I hear you say
9 that it does, that it would do exactly what he says, and, with
10 the current, it's hitting and going and hitting and going, touch
11 and go, touch and go, touch and go. He ain't going to invest
12 that kind of money to lose his gear like that, because then he
13 wouldn't be in business.

14
15 **CARLOS FARCHETTE:** Graciela.

16
17 **GRACIELA GARCIA-MOLINER:** Additionally, I believe that the way
18 that this set up is that you would put your buoy gear in the
19 water. You would set three or four vertical longlines and you
20 would come right back again to pull them, mostly because of the
21 sharks. Number two, most of the fishers will actually avoid
22 areas where there is any kind of concentration of corals, and so
23 they provided those coordinates to us so that we could take AUVs
24 and ROVs to those areas where they are.

25
26 Number three, the development of the buoy gear, in terms of the
27 queen and the cardinal snapper, it's a very dedicated, very
28 specialized type of fishing activity, and the last thing that
29 you want to do in the Mona Passage is to actually spend any time
30 fighting the retrieval of gear, because of the quick change in
31 weather at any one time.

32
33 **CARLOS FARCHETTE:** Nelson.

34
35 **NELSON CRESPO:** I just want to add to the information that I
36 could provide to Lynn. For the potala, for the weight, we use
37 what we call the -- When the weight gets stuck on the bottom,
38 the line forces the weight to move to the other side and jump to
39 avoid losing equipment and making damage to the bottom.

40
41 **CARLOS FARCHETTE:** Blanchard.

42
43 **TONY BLANCHARD:** When using gear like this, and correct me if
44 I'm wrong, Nelson, but you have to monitor this gear. You just
45 can't sit it and not monitor it, because you're asking to lose
46 it.

47
48 **NELSON CRESPO:** Yes.

1
2 **LYNN RIOS:** I want to remind you that he was very specific in
3 saying that the only time he would fish inside the boundaries of
4 the Bajo de Sico is if the currents and the conditions allowed,
5 because he would not want his gear -- When he drops his gear,
6 like you said, if it doesn't hit the bottom and hold, and it
7 just bounces, but, once he gets to an area where the line is not
8 hitting the bottom, it's just going to drift away with the
9 current. If the currents are in a different direction, then it
10 would just move into the shallower, and then it will get
11 entangled, and so that's something that you need to consider.

12
13 **CARLOS FARCHETTE:** Miguel.

14
15 **MIGUEL ROLON:** If the council is convinced that this is okay,
16 just do nothing but we have to make sure that that fisherman --
17 Because we know Pauco. We all know Pauco. He's a very
18 responsible fellow, and we don't want Pauco to be penalized by
19 the Coast Guard or anybody because of this kind of a gray area
20 here, and so it would be nice, if we allowed this, to have sort
21 of a bulletin that we can send out to the fishers in the area
22 that this could be used in Bajo de Sico and it's not in
23 violation of either Puerto Rico's regulations or the federal
24 regulations, if that's what you want. If you want to go the
25 route of the Gulf Council, then you have to modify the
26 regulations, and so we need to hear from you of what is it that
27 we should do.

28
29 **CARLOS FARCHETTE:** Blanchard.

30
31 **TONY BLANCHARD:** My opinion is to allow the gear. So moved.
32 Let it go.

33
34 **CARLOS FARCHETTE:** Graciela.

35
36 **GRACIELA GARCIA-MOLINER:** The Puerto Rico regulations is another
37 thing, because they only do have one definition, I believe, and
38 it's just to define what the longline is, and that is something
39 beyond the council, but to actually request from the DNER the
40 notification of what gear is allowed or not.

41
42 **MIGUEL ROLON:** We have been asking the DNER for the last fifteen
43 years to have compatible regulations. Maybe, with Ricardo now,
44 we have some hope that something will be done, because -- Guys,
45 we have to be practical. DNER is waiting for next year to do
46 something, because you have an interim secretary and an interim
47 boss for Ricardo. The only poor soul that will be there for a
48 while is Ricardo, and so nothing will happen until next year,

1 but we want to know, because we have a responsibility to the
2 fishers out there and the Coast Guard, because, in the past, the
3 Coast Guard has apprehended a fisherman for catching a marbled
4 grouper here and a strawberry grouper, and we don't have
5 strawberry grouper here, but the red hind looks like a
6 strawberry.

7
8 If the council would like to -- You don't need an action at this
9 time, but it will be nice to have it on the record that the
10 council moved that this gear will be allowed in the EEZ of Bajo
11 de Sico.

12
13 **CARLOS FARCHETTE:** Ricardo.

14
15 **RICARDO LOPEZ:** To answer to that, it is true that the Secretary
16 is an interim, is an acting secretary, in terms that it's going
17 to be a very short time. My supervisor also is acting, and it's
18 Miguel Garcia, but, even so, we can take many things to the
19 Secretary and to my director, and we can do things.

20
21 **MIGUEL ROLON:** Because, if that can happen, probably, Ricardo,
22 you can meet with Graciela. She has all the language and the
23 documents before, so you can have something for us at the
24 December meeting that the council can chew on it.

25
26 **CARLOS FARCHETTE:** Let me ask then, because Blanchard just moved
27 to allow buoy gear in the EEZ, and is that what we're -- Iris.

28
29 **IRIS LOWERY:** I think, based on the discussion that we've just
30 had, I think this is really about this particular case and
31 saying that, in this case, the particular gear is not prohibited
32 by federal regulations, and it seems like that's what the
33 council wanted to do. If the council wants to take some sort of
34 affirmative step, then you can do that via some sort of
35 framework action, but, if you're satisfied with the way that
36 regulations currently are, then I don't think the council needs
37 to do anything at all.

38
39 **CARLOS FARCHETTE:** Okay, and so that means that the gear is
40 allowed?

41
42 **IRIS LOWERY:** Right, and it's not prohibited.

43
44 **CARLOS FARCHETTE:** Okay.

45
46 **MIGUEL ROLON:** Alida is here, and so we can prepare a bulletin
47 to send that out, because we don't want this to happen again to
48 other fishers, and it will be also good for Lynn and the Coast

1 Guard and the Puerto Rico Rangers to have that very clear in the
2 EEZ, because they are deputized by the Coast Guard to enforce
3 the law in Bajo de Sico's EEZ.

4
5 **CARLOS FARCHETTE:** Okay. Thank you, Lynn. We are moving to
6 Atlantic HMS Caribbean Fisheries and Delisse Ortiz.

7
8 **ATLANTIC HMS CARIBBEAN FISHERIES**

9
10 **DELISSE ORTIZ:** Hi, and good afternoon. My name is Delisse
11 Ortiz, and I will be talking a little bit about Atlantic HMS,
12 and in part because we've received some recent requests about
13 making some management changes to our current federal
14 regulations, and we want to present those to the council as well
15 as some of the challenges that are faced with some of those
16 requests and some options that we may have in how to address
17 those.

18
19 Just to give a little bit of background, in terms of federal
20 management of HMS, in the Caribbean region, it is basically
21 within the EEZ. Atlantic HMS is not managed by a council, and
22 it is directly managed by the HMS Management Division at the
23 Office of Sustainable Fisheries, and this includes the tunas,
24 billfish, swordfish, and sharks in the Atlantic, Gulf of Mexico,
25 and the Caribbean, as defined per the Code of Federal
26 Regulations.

27
28 Some of our species are managed to shore, and so they do cover
29 territorial waters. For example, in 2010, Puerto Rico adopted
30 HMS federal regulations for Puerto Rican waters, extending
31 federal management of HMS to territorial waters, including some
32 of the permit requirements for harvesting sharks and swordfish
33 and tunas.

34
35 In terms of the U.S. Virgin Islands, in 2001, they established a
36 moratorium on any new licenses, and, as far as I know, that
37 hasn't changed. What we've been hearing is that many fishermen
38 in the Caribbean would like the opportunity to land sharks using
39 an existing HMS commercial Caribbean small-boat permit that we
40 implemented a few years ago, as well as having the ability to
41 land more swordfish. Right now, they can land swordfish, but
42 it's more two or three or six swordfish per trip or vessel,
43 depending on the permit that they have, and so one of the
44 requests is, hey, let us kind of land more swordfish. There is
45 a high interest in that.

46
47 In terms of sharks, some of the comments that we have received
48 is that they're really not a targeted species and they're more

1 caught at incidental levels. We have heard that they are kind
2 of everywhere when they're going out for snapper or some of the
3 mackerel. They just kind of eat their catch, and so they would
4 like the opportunity to be able to retain those shark species,
5 and there is really not any sort of risk of targeting them,
6 because of the low market that exists for these sharks and just
7 not a lot of interest, unless there is the occasional person
8 that wants to catch them to make some pincho out of them or
9 something like that.

10
11 In terms of permits that we have in place to harvest sharks or
12 swordfish, we have a whole slew of them. You can see the table
13 here, and any person that wants to harvest them at a
14 recreational or a commercial level, they have to have one of
15 these permits and adhere to any of the requirements as it
16 pertains to gears, reporting, and any other minimum size
17 restrictions. On the left, you have swordfish fishing permits.
18 On the right, you have the shark fishing permits, and they are
19 separated out by recreational and commercial.

20
21 You can see, like on the commercial side, you have the HMS
22 commercial Caribbean small-boat permit, which is of interest to
23 folks here in the Caribbean, because it allows them to land and
24 sell without having our HMS dealer permit for tunas and
25 swordfish, but, currently, right now, it has a zero retention
26 limit for sharks. You also have the swordfish general
27 commercial permit, which right now has a retention limit of six
28 swordfish.

29
30 Each one of those permits is restricted by, again, some of the
31 retention limits, and they vary greatly by permit, but this is
32 just a snapshot, just so you can get a sense of how complicated
33 things can be, although I know you guys know that by now. On
34 the left, you have swordfish, and, on the right, you have
35 sharks.

36
37 Again you can just see that, for the retention limits of
38 swordfish, they can vary anywhere from two to six. For sharks,
39 folks, at least at the commercial level, are limited by either
40 having a directed limited access permit or potentially the HMS
41 commercial Caribbean small-boat permit, although, again, that
42 retention limit is set at zero.

43
44 This is sort of a close-up of the Caribbean small-boat permit.
45 You can see there is a vessel size restriction. It's less than
46 or equal to forty-five feet. The three species that are allowed
47 are tunas, except for bluefin, swordfish, sharks, and then you
48 can see the number of fish per vessel per day and the minimum

1 size requirements and then the authorized gear. Then, just
2 based on the previous discussion, I want to make sure that you
3 know that -- It says buoy gear, but our definition of buoy gear
4 is not the same definition that you guys have for buoy gear. It
5 is allowed for swordfish directed, this permit, and then for
6 tunas, and this is the only permit where buoy gear is allowed
7 for tunas.

8
9 In terms of the distribution of HMS permits in Puerto Rico and
10 the USVI for the last couple of years, for the most part, a lot
11 of them are at the recreational level. We have very few of
12 those small commercial permits that allow for the landing of
13 sharks and swordfish, and then not a lot of dealers, and not any
14 shark dealers in Puerto Rico, and no swordfish dealers in the
15 U.S. Virgin Islands. Per our requirements, if a fishing vessel
16 lands product, they must sell to a federally-permitted dealer.

17
18 One of the caveats of the HMS Caribbean small-boat permit is
19 that they can sell it themselves, and we sort of did that,
20 carved that out, specifically for that permit so that folks --
21 They're really not targeting fish on the island, and it's just a
22 small artisanal fishery, and they could have the ability to
23 catch HMS and sell them without having to go through an HMS
24 dealer permit that requires workshops and a lot of permit
25 requirements and training.

26
27 Some of the recent requests, again, that we've had is for
28 Atlantic sharks, again, to allow a shark retention limit through
29 the HMS commercial Caribbean small-boat permit in Puerto Rico
30 and the USVI and create a small-scale multi-fishery shark quota
31 that incorporates the unique traits of the islands. Then, for
32 swordfish, again, increase the swordfish limit under, again, the
33 HMS commercial Caribbean small-boat permit.

34
35 Now, in terms of some of the landings that we have, they are not
36 a whole lot for the last five years, at least for swordfish.
37 You can see the catch is minimal, and folks would like to
38 increase those numbers. Then, for sharks, there is a variety of
39 shark species that have been caught in the last five years, and
40 this is just kind of like a snapshot, but, again, the number of
41 pounds dressed weight of landings is at the incidental level.
42 It's probably like an average of 6,000 pounds a year.

43
44 The one thing that I want to note is that some of these species
45 are on our prohibited list of species, and so, when we get a
46 request to allow for the retention of sharks, that does present
47 a problem, and so what I would like to go through now is sort of
48 presenting those challenges to the council and some of the

1 options that we have and kind of sort of try and engage feedback
2 from the council on ways to move forward.

3
4 The first option is to allow landings of sharks within the
5 permit. One of the problems, again, like I said, is we have
6 some of these species, like the Caribbean reef, Caribbean
7 sharpnose, and sevengill that are caught here. Especially the
8 Caribbean reef I hear is caught a lot and interacted with a lot
9 from the prohibited species.

10
11 One of the options that we have is do we just allow folks here
12 to retain only the authorized species that we currently have in
13 our management plan or do we remove some of those species from
14 the prohibited species list and allow them to be retained? In
15 the very small font, that's a criterion that right now we have
16 in our regulations on things that need to be met, or at least
17 one criteria that needs to be met, for us to remove that. We
18 haven't yet removed a species from the prohibited list, and so
19 it would be the first time.

20
21 The second option is, if we do remove it from the prohibited
22 list, then what management group do we put it in? Right now, we
23 have large coastal sharks, small coastal sharks, and pelagics.
24 We have a variety of management groups. If we take it off of
25 the prohibited list, where do we put it? Do we put it back
26 where it used to be in the large coastal, small coastal, or
27 pelagics, or do we create a whole new management group
28 specifically tailored for the Caribbean?

29
30 The other thing is quotas. Right now, any landing made in the
31 Caribbean goes against our Gulf of Mexico shark quota, and so
32 questions are do we maintain that current structure or do we
33 allow landings of only authorized species in the Gulf of Mexico
34 or do we remove the prohibited species and count those towards
35 the Gulf of Mexico quota as well, or, again, do we remove them
36 from the prohibited species list and authorize their harvest
37 only in the Caribbean and then count it against a whole new
38 Caribbean quota? Again, these are some of the things to think
39 about, because, right now, everything is tied into the Gulf of
40 Mexico quota.

41
42 Another challenge is, right now, the retention limit for this
43 Caribbean small-boat permit is set at zero. Some people are
44 like, well, why don't you just up the retention limit, and we
45 have to establish a criteria to adjust the retention limit, and
46 so is that the way to go? If we do that, then what should the
47 retention limit be? Should we require shark dealer workshops
48 and electronic reporting requirements, like some of our shark

1 dealers have, for the Caribbean small-boat permit holders, since
2 they need to identify some of these shark species and make sure
3 that we have those landings? Right now, the Caribbean small-
4 boat permit holders don't report to us. Their reporting
5 requirements are to submit reports to the territories.

6
7 Then another challenge is that, if we do make any changes,
8 scalloped hammerheads have been caught in the Caribbean region,
9 and, recently, scalloped hammerhead sharks in the Caribbean have
10 been listed as threatened in this area under ESA, and so that is
11 another concern to address.

12
13 The second option and request was to increase the retention
14 limit of swordfish for the small-boat permit. Right now, the
15 retention limit is two swordfish per vessel per day, and so,
16 again, the question is do we establish in-season retention
17 limits and, if we do, what is the range? Should we have a
18 default or just have a full range that we use? If we do set a
19 limit, then what should that retention limit be, based on what
20 we currently know? I think that's all I've got, and I would
21 love to hear your feedback. This is our contact information, if
22 anything comes up later.

23
24 **CARLOS FARCHETTE:** Blanchard.

25
26 **TONY BLANCHARD:** What's the criteria to remove them off the
27 list?

28
29 **DELISSE ORTIZ:** I don't know this by heart, but it has to meet -
30 - To delist from the prohibited list, it has to meet at least
31 one criteria of the five listed. The one is biological
32 information indicates that the stock warrants protection, and
33 that's number one. Number two is information indicates that the
34 species is rarely encountered or observed or caught in HMS
35 fisheries. Number three is information indicates that the
36 species is not commonly encountered or observed or caught as
37 bycatch in fishing operations for species other than HMS.
38 Number five is the species is difficult to distinguish from the
39 other prohibited species. If it meets one criteria, it can be
40 delisted. If it meets two or three, then it has to stay on the
41 prohibited list.

42
43 **CARLOS FARCHETTE:** Miguel.

44
45 **MIGUEL ROLON:** When do you need these questions to be answered?
46 What is the timeframe that you have?

47
48 **DELISSE ORTIZ:** There is really no strict timeframe. It's

1 whenever the council can provided feedback. Obviously the
2 sooner the better, but --

3
4 **MIGUEL ROLON:** That's what I was thinking, but we are not going
5 to do this between here and 6:30. My suggestion is that the
6 Chair appoint a small committee of council members and one or
7 two fishermen who are related to this and not a guy who just
8 fishes reef fish, and then come back at the December meeting
9 with some let's say tentative answers to your questions, so we
10 can give you a direction in which the council is thinking about
11 this.

12
13 For example, personally, I believe that some of the questions --
14 You know, as much as possible, give a quota to the Caribbean and
15 give something to the fishermen that they don't have now, and
16 then that will be the big umbrella thing, but then the committee
17 can address all of that. Then, by the December meeting,
18 hopefully you can visit us again and we will be able to --
19 Actually, before the council meeting, we have to send you that
20 thirty days in advance, and so you will have an opportunity to
21 review the document, so the council can start a discussion to
22 give you an answer to your questions.

23
24 **DELISSE ORTIZ:** That would be excellent.

25
26 **CARLOS FARCHETTE:** Richard and then Marcos.

27
28 **RICHARD APPELDOORN:** Just a point of clarification. Point one,
29 shouldn't that read "biological information indicates that the
30 stock does not warrant protection", because all the other ones
31 are worded that way, that there is not a problem. The first one
32 is worded that there is a problem.

33
34 **DELISSE ORTIZ:** I think that's correct, because, if it meets
35 that it warrants protections, then it needs to stay on the
36 prohibited list.

37
38 **RICHARD APPELDOORN:** Yes, but it says if it meets one of them,
39 that it --

40
41 **IRIS LOWERY:** I am looking at the regulations, and that is
42 correct. That's what it says.

43
44 **CARLOS FARCHETTE:** Marcos.

45
46 **MARCOS HANKE:** I am on the AP for HMS, and you guys heard me
47 already, but I just want to state a few things. One thing is
48 that we have our orientation meeting taking place tomorrow, from

1 three to five, from a group of fishermen in Saba. Everybody is
2 invited, whoever wants to attend. Please contact me at the end
3 of this meeting to get instructions on how to get there.

4
5 The other thing that I would request, and not to be repetitive
6 on my positions that you guys already know, but it's that this
7 presentation, with the specific questions that you have, should
8 be sent to each council member so that they can think about it
9 and answer them and get in contact with me, as an AP member, or
10 with the Chairman, for those positions to get a voice, for you
11 guys to hear from them. It's just very directed, the questions,
12 on your presentation, and I think it should be sent to the
13 council. That's it.

14
15 **MIGUEL ROLON:** Marcos, it has to be a council thing, and not
16 through the committee or you as the chairman of the committee,
17 and so our suggestion is that perhaps Marcos could be the chair
18 of this committee, because he's most knowledgeable about what is
19 happening, and then you need to appoint maybe one or two more
20 people, council members. The DAP Chairs should be involved, and
21 then, of course, with Graciela as a staff member and Delisse,
22 and then we can have some draft presentation at the December
23 meeting that will shed light on what the council is thinking
24 about this. For the record, all the council members will
25 receive this presentation after the meeting.

26
27 **CARLOS FARCHETTE:** I have Alexis and then Iarocci.

28
29 **ALEXIS SABINE:** I have a question about the different types of
30 HMS permits. Is it true that fishers can only have one type of
31 HMS permit, whether it's commercial or charter or headboat, or
32 is it possible to have more than one at the same time?

33
34 **DELISSE ORTIZ:** No, you have to have just one during the year.

35
36 **ALEXIS SABINE:** Okay. I ask because we have several fishers in
37 the Virgin Islands that are commercial fishers, and they will
38 regularly commercially fish for tunas, but they also have
39 charter and sportfishing businesses, and so they would like to
40 recreationally fish for billfish and swordfish, and so, right
41 now, only having the commercial HMS permit would not allow them
42 to fish for the billfish?

43
44 **DELISSE ORTIZ:** Randy is going to clarify.

45
46 **RANDY BLANKENSHIP:** My name is Randy Blankenship, and I'm the
47 Southeast Branch Chief for the Atlantic Highly Migratory Species
48 Management Division, and so a point of clarification. There are

1 some permits that cannot be held with other HMS permits, but
2 some can be, and so it varies.

3
4 In the case that you just spoke about, I think, if I heard you
5 correctly, you were asking about vessels that have a
6 charter/headboat permit, an HMS charter/headboat permit, fishing
7 recreationally or commercially. The HMS charter/headboat permit
8 is very interesting, in that it is both a recreational permit
9 and a commercial permit in different situations.

10
11 It is both a recreational and commercial permit for tunas and
12 for swordfish, but it is a recreational only permit for
13 billfishes, and so a vessel that wants to take charters for
14 billfish should get an HMS charter/headboat permit, and they may
15 recreationally fish for billfish and retain them or release
16 them, according to the regulations. They may fish in
17 tournaments and all of that.

18
19 That same vessel may also fish recreationally or commercially,
20 and there are some stipulations about whether they're on a for-
21 hire trip or a not for-hire trip that dictate what can be done
22 on that trip, but they can catch and sell tunas, and they can
23 catch and sell swordfish, but they must only sell to a permitted
24 dealer for tunas and swordfish, and we can talk about that a
25 little bit more offline, to give clarification.

26
27 It's described quite well in our compliance guides for those
28 permits, and we can give you a copy of that. There are some
29 other combinations of HMS permits that can also be held
30 simultaneously, but I won't get into all of that. It gets
31 rather convoluted.

32
33 **CARLOS FARCHETTE:** If you have an HMS permit, you cannot have a
34 small-boat permit, right?

35
36 **RANDY BLANKENSHIP:** It is true that the HMS Caribbean small-boat
37 permit may only be held alone and not in combination with any
38 other HMS permit, yes.

39
40 **CARLOS FARCHETTE:** Okay. Iarocci.

41
42 **TONY IAROCCI:** Thank you, Mr. Chairman. I got a call yesterday,
43 and, by the way, that was a great presentation. It was very
44 informative. I learned a lot from that, especially with the
45 Caribbean stuff compared to what's going on in the Southeast and
46 the Gulf of Mexico.

47
48 I got a call yesterday from one of the dealers here in San Juan,

1 where two of the longline boats are fishing out of, and they've
2 been coming in and they've been having a lot of interaction with
3 whitetip. They're catching a lot of them, and they're tearing
4 up their gear, and there's a lot of shark bites, and they had
5 inquired about, and I told them I would ask, if there would be
6 any way that they would be able to retain and catch them.

7
8 You talked about the small-boat permits, but they were curious,
9 and I said I would ask, but is there any way that they could
10 open up for the whitetip, because they are very plentiful, and
11 they want to be able -- There is a market for them. The dealer
12 is licensed, and they're curious about opening that up for any
13 kind of retention or limit for whitetip sharks.

14
15 **DELISSE ORTIZ:** We will add that to the list of species. I
16 wasn't aware of whitetip.

17
18 **CARLOS FARCHETTE:** Okay. We are going to form this committee,
19 because there's a lot of questions on this, and I have quite a
20 few questions that I need answered, but I don't want to take up
21 all of this time, because we have a lot of sharks on St. Croix,
22 a lot. Marcos, did you have a comment?

23
24 **MARCOS HANKE:** Yes, a comment about the clarification that you
25 made on the previous question, for the benefit of the group. If
26 you have a headboat or charter boat permit, you can have a
27 dealer permit at the same time. Then he will be able to sell
28 the fish, correct?

29
30 **DELISSE ORTIZ:** Yes.

31
32 **RANDY BLANKENSHIP:** Yes, under that scenario, the fishermen then
33 could catch and technically sell to themselves and act as a
34 dealer. That can happen.

35
36 **CARLOS FARCHETTE:** Okay. Thanks. I guess we will form a
37 committee, and we will send letters out. We're going to go
38 forward with -- Iris.

39
40 **IRIS LOWERY:** As far as the formation of a committee, just being
41 wary of FACA considerations again, the council can form an
42 advisory committee. That is authorized under the Act, but your
43 operating procedures also require that you do certain things
44 when you have an advisory panel and having a range of interests
45 from all the geographical areas of concern, and so I am a little
46 concerned about just setting up an advisory committee outside of
47 the council session, and so maybe, Miguel, you can clarify what
48 you are envisioning.

1
2 **MIGUEL ROLON:** We have done that before. It's ad hoc committee
3 that will look at this and then bring to the council a
4 discussion of the whole document, and so it's a working
5 committee, a working group, and it should be composed of council
6 members and advisory panel members, so we comply with FACA. If
7 we bring somebody from outside in, we have to follow all of
8 that, or at least that's my interpretation, but you can clarify
9 that for us.

10
11 **IRIS LOWERY:** I lost you a little bit there.

12
13 **MIGUEL ROLON:** Let me give you the names of the people, and it
14 will be an ad hoc committee, a working group, that the task will
15 be to prepare some kind of draft answers to the questions that
16 have been posed today by Delisse Ortiz, and it could be Marcos
17 Hanke, the three DAP Chairs, and Dr. Richard Appeldoorn, and
18 those people are members of the committees, and so the question
19 is, is that okay and we escape FACA this time or -- This is a
20 serious matter.

21
22 **IRIS LOWERY:** Would you still plan to have a notice in the
23 Federal Register and notice the meeting or not?

24
25 **MIGUEL ROLON:** Yes, and, if we have an ad hoc committee, it has
26 to be done that way.

27
28 **IRIS LOWERY:** Okay. That sounds great.

29
30 **MIGUEL ROLON:** Are you happy with it? Okay.

31
32 **CARLOS FARCHETTE:** Thanks for keeping us in line. I always
33 forget about the legal part of it. Okay. Outreach and
34 Education, Dr. Alida Ortiz. Just, before Alida starts, I am
35 going to go ahead and appoint the members of the ad hoc
36 committee. It will be Marcos Hanke as Chair and the three DAP
37 Chairs, which would be Schuster, Julian, and Crespo, and Dr.
38 Appeldoorn. Okay, Alida.

39
40 **OUTREACH AND EDUCATION REPORT**

41
42 **ALIDA ORTIZ:** Good evening. My presentation will be short and
43 concise, because it's about time, and so I will begin. I am
44 going to just make a very short update of the activities that we
45 are undertaking at the Outreach and Education Advisory Panel,
46 and the one that we sort of are working more constantly on is
47 the development of the campaign for the consumers responsible
48 seafood consumption that we are gathering information from

1 fishers from restaurants and chefs and fish markets to make a
2 campaign directed to the consumers.

3
4 With that, we made a presentation at the 13th Caribbean Coral
5 Reef Symposium in Hawaii in June, and the elements that were
6 presented in the campaign were very well received, because most
7 of the campaigns are still directed to the fishers and not to
8 the consumers itself, the consumers that goes to the restaurant
9 and demands the species that traditionally they have been
10 consuming without knowing the species and without knowing
11 whether they are regulated under any kind of management.

12
13 We want to gather all of the information from Puerto Rico, and
14 we had students in the field interviewing people in the
15 restaurants, people in the fish markets, and, with that
16 information, we gathered the species identified, and we sent
17 them to the Fisheries Lab of DNER, so that we can compare that
18 with the list. We compared that with all the managed groups in
19 the council, and we came up with about thirty-eight species.
20 From those thirty-eight species, we have still now to consult
21 directly with the restaurant owners and the chefs and the fish
22 markets to make a list of about probably -- I wouldn't say more
23 than twenty species where people can substitute those that are
24 under regulation when they want to eat that but it is not
25 available.

26
27 Then, after we do that, we have to at least make a design of
28 what type of material we want to get to the public, because,
29 many times, you have too many books around, and we need small
30 posters. We need to have materials that are appropriate for the
31 place where they are going to be used. We are trying to think
32 that the consumer wants to know that there is more information,
33 and it doesn't get to them and it gets only to the fisher, and
34 so that's what we are doing there.

35
36 Then, in that same activity of the coral reef, we had a very,
37 very good presentation by Maria Lopez, and the title was "A Case
38 Study of Ecosystem-Based Fisheries Management in Puerto Rico:
39 The Ideal and the Real". To me, that was an eye-opening
40 presentation, and I think it's very important that we share that
41 with you.

42
43 I will not take that part of the environment-based, ecosystem-
44 based, management, but if this other information is based on the
45 results of the public hearings and all the meetings that we had
46 regarding the Bajo de Sico and Tourmaline and the other site,
47 and how ecosystem-based management principles have to be
48 present, have to be inserted, but it is not that easy, and we

1 have to see how much of outreach and education has to be placed
2 there.

3

4 I will go through a very small part of it, and Maria is here,
5 and so anything that you want to clarify or make an emphasis on,
6 good. This is the title of the presentation: "A Case Study of
7 Ecosystem-Based Fisheries Management in Puerto Rico: The Ideal
8 and the Real". After she went through the ecosystem-based
9 management principles and the guidelines that are out to insert
10 that management procedure in our rules, they found that it was
11 not successful.

12

13 You remember the situation in Mayaguez and how many times we had
14 stakeholders going back and forth and back and forth with the
15 information, and we really didn't get to it very clear, and so
16 the summary that Maria gets out of it is that management of ABT,
17 within a broader ecosystem context, requires socioeconomic
18 considerations, preventing managers from achieving the ideal,
19 had to go with the real, and so it's like some -- In some space,
20 we have to get together the stakeholders, and not only one type
21 of the stakeholders, but all of them and the managers that want
22 to promote changes.

23

24 There are competing interests, multiple user groups, fear of
25 loss of resource, access, perception of lack of background
26 information to justify management changes, and lack of interest
27 to compromise or address tradeoffs within the ecosystem. When I
28 saw this, I felt that this is a field for outreach and
29 education, and we do have to look back into what we are saying
30 that we will do and what we have put in the plan that we handed
31 in five years ago or something like that on the outreach and
32 education for the council.

33

34 We have seen this not only for these ABT public hearings, but it
35 is the same thing that has happened with the last hearings that
36 we had on the measures, the closures, those closures that Kate
37 did, the accountability measures, that were presented yesterday
38 and today.

39

40 What to improve? These are the lessons learned. In terms of
41 science, we have to ensure that the scientific evidence supports
42 the proposed management actions and addresses the lack of
43 information. As scientists, we tend to summarize very much, and
44 sometimes a graph is great, and it gives a lot of information,
45 but the graph didn't come out just with the lines, and where is
46 all the information that the graph is representing?

47

48 Examples are to conduct biological assessments of the

1 performance of closures and spawning information and the status
2 of a species, habitat use, gear/benthos interactions,
3 enforcement, connectivity, and this is all the science that has
4 to go at least into this, and a specific example that Maria
5 presented in her oral presentation.

6
7 In communications, and this is the part that we are most close
8 to it, science is essential, but not enough. Communication is
9 equally important, and, for that, we have to address information
10 disconnect with constituents, and that's the failure to get the
11 scientific information to them. I may make a flyer or I may
12 make a bulletin, but, if the information is just taken from the
13 rule and put in that flyer, it has the same vocabulary. It has
14 the same accent, and so we have to change that.

15
16 Make sure that we are communicating with all, and all in capital
17 letters, user groups. We must improve cross-cultural
18 communication, and that cross-cultural communication is not only
19 between the scientists and the manager and the person that is
20 the stakeholder. Within the stakeholders, we have different
21 interests, and so we do have to make sure that we reach all of
22 them.

23
24 How is the information disseminated? Sometimes we say they want
25 to receive it via mail, in a paper, but then they don't read
26 that much, or they don't give you the information, or they say
27 that they didn't get it on time. Managers are not getting their
28 ideas across, and we need to find a better way to communicate
29 complex issues, and most of the management issues are very,
30 very, very complex.

31
32 Public involvement, and notice that we have stakeholders, and
33 the stakeholders have many, many different components. Make
34 constituents part of the process from the start and not just to
35 receive some things that were discussed or that were done and
36 then we want them to understand. These stakeholders, this
37 public, needs to be there from the very, very beginning, even
38 with the scoping meetings or with the visits in the field.

39
40 Enhance the existing mechanism by which fishermen can contribute
41 their knowledge and perspectives into the science and management
42 process. At this time, as Outreach and Education, we are trying
43 to explore the social media, and probably this is one way to get
44 to many of the people that we have not been getting close
45 enough, and so encourage active leadership positions.

46
47 We have many people within the fishing communities that are not
48 fishers, but probably are part of the family, and they can be

1 very good deliveries for the information, and seek feedback. We
2 can have a scoping meeting, and we can get all the information
3 that we gather from the public, but how do we get the
4 information back to the public once we put in a format and see
5 if that's what they want it to say or see if we interpret it
6 correctly what they need it to say. Decision makers should try
7 to better understand the cumulative impacts of regulations on
8 the socioeconomics. Maria, do you want to say anything about
9 it?

10
11 **MARIA LOPEZ:** Thank you, Alida. No, this was just a
12 presentation that we did for the ecosystem-based management
13 session on the International Coral Reef Symposium, and what we
14 wanted to do is provide what we as managers learned from this
15 whole process using the ABT, the recent case of ABT, as an
16 example of what we should learn for the future for everything
17 else that we're going to be doing, and this was done within the
18 context of the newly formalized NOAA Fisheries policy that
19 recently came out.

20
21 We decided to use ABT as a case study because we have been
22 basically managing ABT as ecosystem-based fisheries management,
23 even if we don't formally acknowledge it. We started out
24 managing a single species, and then we have been moving towards
25 multispecies habitats and socioeconomics and doing a lot of
26 things in there, and we as managers -- The council, when you, a
27 couple of years ago, when there were changes proposed to be done
28 to ABT, what they wanted to do was basically achieve that
29 balance between the different components, which is what
30 ecosystem-based management wants to do.

31
32 In this case, it was protected spawning aggregations, protected
33 habitat, that support these aggregations that also serves as
34 foraging and recruitment and residential habitat for several
35 species and also protect the socioeconomic component, because
36 the council has the obligation, and managers, to protect the
37 livelihoods and be able to create a balance of all of that.
38 That's basically what this presentation was about, and I think
39 you summarized the lessons that we learned from here, and that's
40 it.

41
42 **ALIDA ORTIZ:** In our next O&E AP meeting in November, we are
43 going to bring this back and get the input from the members of
44 the panel, because we really need to make a different approach
45 to how we reach the people, the public.

46
47 The other activity that I think we must emphasize is the MREP,
48 the Marine Resource Education Program, and especially because

1 the Marine Resource Education Program, we have been talking
2 about when is it going to be in the Virgin Islands, and Helena
3 Antoun -- Helena, do you want to tell something?

4
5 **MIGUEL ROLON:** Before you go, Alida, everything you have in that
6 list, we have been doing that for the last ten or twenty years.

7
8 **ALIDA ORTIZ:** Oh, yes, but sometimes I think it's not working.

9
10 **MIGUEL ROLON:** Yes, and, if you take Bajo de Sico, for example,
11 in Bajo de Sico, everybody was -- It took the mayor of Cabo Rojo
12 to bring a couple of school buses full of fishermen, and
13 everybody was scared, and so people got run out of the meeting,
14 and then they came back and said, no, we don't want to touch
15 Bajo de Sico.

16
17 That is the reality, and so we can continue working on this
18 education thing, but assuming that we haven't talked to the
19 people or worked with the people is wrong. The whole list and
20 the things that we do are embedded in all the management plans
21 and everything that we have, and so these ideas, we can continue
22 doing this, because we all know that education is not a one-shot
23 deal. We have to continue that, but I encourage the advisory
24 panel to continue working on this, but you have to keep your
25 feet on the ground.

26
27 **ALIDA ORTIZ:** Yes, and I think that also times have changed, and
28 people are either reading less or reading more or taking more
29 attention on these issues, but we cannot do this in just one
30 shot. Probably getting the information to the people,
31 regardless of whether they are in the fishing community or in
32 the economic part of the fisheries, maybe it needs a different
33 way of putting the information there, and that's what we would
34 like to see.

35
36 **MIGUEL ROLON:** Also, to clarify, as I said before, I did an
37 impromptu survey with all the fishers that have been going --
38 They went to Cabo Rojo and Mayaguez, and the number one thing
39 that they want to use as a vehicle for getting information is
40 the good old mail, in writing.

41
42 Now, with the social media thing, we are going to embark into,
43 hopefully, a page on Facebook, and we are working on that in
44 conjunction with the Gulf Council and the South Atlantic
45 Council. Actually, we have this meeting that we put together,
46 and Emily and Helena and you and others will sit down and see if
47 we can develop that webpage.

1 By the way, there is a webpage, when you go to Facebook, and
2 Helena found that out, that is called the Caribbean FMC Facebook
3 Page. I learned that Facebook has some robots that they capture
4 times that your name is mentioned, the same as Google, and then
5 they develop a page for you. Then you decide whether you want
6 to develop that or not, and so, between here and December, we
7 are going to bring to the council a proposal or the webpage
8 actually working, so you can take a look at it at the December
9 meeting, if not sooner.

10
11 The last thing is I really appreciate what we're doing, because
12 Alida and I have been discussing this for many, many years. On
13 the other side, I believe that everything that you said is
14 right, especially with the socioeconomics, and we have to keep
15 doing it and pushing forward and getting the back-and-forth
16 between the public and the council members, but I encourage also
17 the council members and the DAP members to pass this word along
18 and work with the people, because we copied this from the Bible.
19 You have to go back to your people and talk it over. A good
20 example is what Ruth presented. She met with the fishers in St.
21 Thomas and they came up with the goals and objectives and all of
22 that, and so we have to keep working at it.

23
24 You forgot to mention, or I can say it now, that we have set
25 aside some money in the budget for some materials that we are
26 going to use for the seafood campaign.

27
28 **ALIDA ORTIZ:** Yes, the responsible consumer.

29
30 **MIGUEL ROLON:** We have also a book that hopefully will come out
31 this year, and Graciela -- You already have the presentation.
32 We are just waiting for the book, but then, Alida, can you tell
33 us about other materials that you mentioned before that you
34 expect to put out?

35
36 **ALIDA ORTIZ:** The other materials that we hope to put out are
37 like placemats for the restaurants with the information, small
38 posters where they have good photographs that they can
39 distinguish one species from the others, especially groupers and
40 snappers and others, and also we want to get something for the
41 students, for the kids, and so the same way that we had a
42 coloring book on the coral reef, we must have some kind of
43 information where the kids, the nine-year-old, that go with
44 their parents to the restaurants know what species they are
45 going to eat and where does it live. Those are still in the
46 design and, as soon as we have a very good draft for the
47 materials, we will present it to the council to see how much
48 they're going to cost.

1
2 **MIGUEL ROLON:** The last thing is that there is a lady that came
3 to the public hearings, and she said that, and almost everybody
4 agreed there, that it would be a good idea to have a poster with
5 the regulations that could be deployed at the fish houses and
6 everything, because most of the fishermen learn through their
7 dealers about regulations and everything, and so the O&E AP is
8 going to meet in November?
9
10 **ALIDA ORTIZ:** November 16.
11
12 **MIGUEL ROLON:** We expect to have that drafted and then, maybe
13 for next year, have those regulations in place, and, to the
14 point, that one of the posters or bulletins should be to clarify
15 about the buoy gear that we just mentioned, so the fishermen
16 will have that in their hands in case they are boarded, and they
17 will be able to show that this is allowable or not.
18
19 **ALIDA ORTIZ:** Okay.
20
21 **CARLOS FARCHETTE:** I have Maria and then Ruth.
22
23 **MARIA LOPEZ:** I just wanted to clarify that, during the
24 presentation, as Miguel said, we are doing most of these things,
25 but it's just that what we need to do probably, and what we
26 identified as managers, is that, as Alida said, what other ways
27 we can do to get the message across, but, yes, most of these
28 things we have been, for years and years, doing, but it's just
29 that sometimes we have to shake it up a little bit to try and
30 get the message across.
31
32 **CARLOS FARCHETTE:** Ruth.
33
34 **RUTH GOMEZ:** Dr. Ortiz, this program includes the U.S. Virgin
35 Islands?
36
37 **ALIDA ORTIZ:** What program?
38
39 **RUTH GOMEZ:** Your program about the consumer.
40
41 **ALIDA ORTIZ:** Right now, we are working only for Puerto Rico,
42 because, in the Virgin Islands, you already have one program
43 that was presented here.
44
45 **CARLOS FARCHETTE:** Reef Responsible.
46
47 **RUTH GOMEZ:** Reef Responsible by TNC?
48

1 **ALIDA ORTIZ:** Exactly.
2
3 **CARLOS FARCHETTE:** It was TNC who started it, and then it spread
4 out to the Outreach and Education Committee through Lia Ortiz
5 and then it's in the Outreach Committee, where Makisha is now a
6 member, and so she'll be involved in that. On that same note, I
7 think that nineteen restaurants, and I believe that already
8 started on St. Thomas, are using Reef Responsible, but I will
9 get you more information on it.
10
11 **ALIDA ORTIZ:** Helena, I will give you a very little --
12
13 **HELENA ANTOUN:** Good afternoon, everybody. Just a quick recap.
14 The Marine Resource Education Program is an educational program
15 that was developed by fishermen for fishermen, and it's part of
16 the Gulf of Maine Research Institute. They have several
17 different branches on the mainland, and we just started our
18 first Caribbean chapter back in 2014 here in La Parguera, and
19 there were requests to bring the program into the USVI.
20
21 We had two town-hall meetings, one for St. Thomas/St. John and
22 one for St. Croix. We worked with the DPNER of the Virgin
23 Islands, Ruth Gomez, to get the fishermen together and just
24 present the idea and see if there is an interest to bringing the
25 program there, and, by the way, I just want to also mention that
26 this was also presented to the DAPs of both districts, of St.
27 Thomas/St. John and St. Croix, and they expressed an interest.
28
29 Now, we're trying to take the information to the general public,
30 and so the results of the town-hall meetings are the following.
31 St. Thomas/St. John, they are definitely ready for it. They
32 would like to hold a workshop to do that.
33
34 The next step is to put together a nine to twelve-member
35 steering committee and the best dates to hold the workshop, when
36 we get everything together, would be sometime between the months
37 of May to July, but also bearing in mind that July is their
38 yearly registration, and so, if we're going to be depending on
39 DPNER, we need to kind of work around their schedule, too. We
40 don't want to put it in the middle of registration week, because
41 they will be swamped with work, and so that is stuff for the
42 steering committee to evaluate.
43
44 St. Croix is not yet ready to hold a full MREP workshop, and so
45 the recommendation was every approximately six months there is a
46 workshop in Florida for science and management, and so what
47 we'll be doing for St. Croix is we will be periodically sending
48 out information about those workshops and trying to get at least

1 two fishermen, one or two fishermen, to go and participate, and
2 maybe sometime, in the long run, we will touch base again with
3 the St. Croix fishermen and see if they want to have their own
4 MREP program in St. Croix.

5
6 As a Puerto Rico update, we think that we're ready for another
7 2017 workshop, and so, at six o'clock tonight, I will be meeting
8 with some of the people that participated in the workshop and
9 some of the steering committee members just to go over -- We're
10 going to do the same format that we did back in 2014, and maybe
11 just make a couple of changes based on recommendations, and
12 we're going to hold it in the same place. La Parguera worked
13 out really well. We had the Marine Science Department right
14 there, and then we also had the Fisheries Laboratory.

15
16 I will be getting in touch in the near future with everybody,
17 with all the speakers and everything, and start pulling this all
18 together pretty soon. That's it, and I don't know if there are
19 any questions.

20
21 **CARLOS FARCHETTE:** Thank you. Miguel.

22
23 **MIGUEL ROLON:** Helena, do you plan to invite St. Croix fishermen
24 to the St. Thomas MREP?

25
26 **HELENA ANTOUN:** Yes.

27
28 **CARLOS FARCHETTE:** Okay.

29
30 **ALIDA ORTIZ:** I still have a recommendation to the council. We
31 do need this orientation meeting with the DAPs, and those
32 orientation meetings can be to refresh or to put in a different
33 vocabulary the information that they are going to share with
34 their scientific committee and with the council, but they need
35 to have more contact with what we are doing, and the council
36 should consider seriously having a person, at least part-time,
37 in the council, in their office, in the staff office, dealing
38 with communication.

39
40 **MIGUEL ROLON:** Helena is going to be doing that as part of the
41 contract she has with the council, and she has three more years
42 to go. She will be in charge of the Facebook and the rest of
43 the communications, and she will be coordinating with Diana to
44 do that and the committee.

45
46 Regarding the orientation to the meetings of the DAPs, we have,
47 for next year, and we were talking about the workshop, and I
48 have to discuss it with the two Chairs between here and the next

1 meeting of when can we do that. Usually, we have an orientation
2 part, and every meeting we provide that to the DAP members, but
3 I agree with this recommendation. This comes from the O&E AP,
4 and so we can work with the Chair of the O&E AP and the three
5 Chairs and see when and where we can have that orientation
6 meeting.

7
8 There, we will include all of the topics that we discussed here,
9 but others that you have on the list that we will discuss.
10 Also, we would like to ask the chairs of the three committees
11 what they would like to hear, what questions they would like to
12 be answered, at that orientation meeting.

13
14 **ALIDA ORTIZ:** Actually, the Outreach and Education Advisory
15 Panel to the council has to feed information on data, on
16 comments, on whatever you want to discuss from the DAPs. That,
17 to me, is one of the most important aspects of the council, from
18 the SSC that we get information, and we have to get all the
19 notes so that the education efforts, or the outreach efforts,
20 that we can make are wide and that have a very, very broad
21 scope. This is not just materials for the school, and this is
22 not just material for restaurants, but this is material for all
23 citizens, and that includes all of us, and so that's the end of
24 it.

25
26 **CARLOS FARCHETTE:** Thank you, Alida. I am going to move
27 forward. Enforcement from Puerto Rico DNER. Go ahead, while
28 they are setting up.

29
30 **TONY IAROCCI:** One quick question. Helena, do you have the --
31 Is translation a problem at these meetings? Do you have
32 translation available, or how does that work?

33
34 **HELENA ANTOUN:** For St. Thomas and St. John, no, and it will be
35 in English. Puerto Rico, we already had everything translated
36 in Spanish.

37
38 **CARLOS FARCHETTE:** St. Croix will share that Spanish and
39 English.

40
41 **ENFORCEMENT ISSUES**
42 **PUERTO RICO DNER**
43

44 **RICARDO LOPEZ:** This is a one-slide presentation. The data of
45 May to July of 2016, I just received it about two hours ago, and
46 so I tried to immediately put it there. From this graph, you
47 can see the interventions that have been done in 2014, about
48 three months per period in 2014, 2015, and 2016 from May to

1 July, which is the most recent.

2
3 In the most recent one, the one from May to July of 2016, the
4 only interventions were done with people that were dealing with
5 land crabs. Either they were collecting the crabs inside of
6 protected areas or undersized or offseason. The other three
7 columns, you saw them in the last meeting, and so you know them.
8 Do you have any questions?

9
10 **CARLOS FARCHETTE:** No, no questions. Thanks. DPNR, Director
11 Forbes.

12
13 **U.S. VIRGIN ISLANDS DPNR**

14
15 **HOWARD FORBES:** Good evening. The Department of Planning and
16 Natural Resources Division of Environmental Enforcement has
17 upgraded our standard operating procedures to include internal
18 control policies for the joint enforcement agreement patrols for
19 handling of investigation cases, reporting, and fisheries-
20 regulated seasons.

21
22 We are awaiting the Commissioner's signature for approval prior
23 to the distribution of these procedures to the officers. We are
24 also in the process of providing additional training to the
25 officers from Fish and Wildlife regarding fish identification.
26 In addition, we are in the process of making an arrangement with
27 NOAA in regards to providing DPNR officers with additional
28 enforcement training on fisheries violation investigation work
29 and reporting.

30
31 The division identified and secured funding for the recruitment
32 of additional officers in both districts. Currently, there are
33 three recruits entered into the academy, as of March of 2016.
34 Graduation ceremonies will commence in mid-October of 2016.
35 Within the next two weeks, the department will start vetting
36 processing for the upcoming academy. It is the division's goal,
37 with the new recruitment selection, that we will enhance our
38 patrol officers to eight per district. Currently, we have four
39 right now in each district.

40
41 Through the 2015 grant cycle for the JEA, we were able to
42 purchase ten handheld radios to replace the existing units. The
43 acquisition of these radios provide our officers with ready
44 communication. We also used the funding to pay down some debts
45 that we had for maintenance on our patrol vessels.

46
47 Also, in the District of St. Thomas, last September of 2016, we
48 received a new thirty-two-foot Boston whaler patrol vessel,

1 which we will be using for long-range patrols in the EEZ. We
2 had also purchased and received two additional seventeen-foot
3 Boston whalers, which will be used for short-range patrols in
4 the harbor, for fisheries also.

5
6 Officers are continuing to conduct dockside inspections to
7 capture any HMS fisheries that are being harvested by both
8 recreational and commercial fishers.

9
10 Highlights of enforcement actions for the months of May, June,
11 and July, we had 197 fishing licenses processed, and we had
12 thirty-six helpers licenses processed. We had six citations
13 issued and forty-four written warnings issued and 157 commercial
14 contacts and six recreational contacts, and we had ninety-four
15 hours of marine patrol. Then we had an additional 154 dockside
16 inspection hours and eighteen outreach hours. That concludes my
17 report.

18
19 **CARLOS FARCHETTE:** Thank you. Are there questions for
20 Enforcement of DPNR? Hearing none, we will move to the U.S.
21 Coast Guard.

22
23 **U.S. COAST GUARD**

24
25 **EFRAIN ROSA:** Thank you very much for having us here. My
26 partner had to leave, and so I will be taking over this part.
27 For those who don't know me, I am Lieutenant Junior Grade Rosa.
28 I work here in Sector San Juan, and I am part of the Enforcement
29 Division. I am also the air scheduler, and I also coordinate
30 with the six FRCs scheduler and the eight SPC-LE small boats.

31
32 Currently, I do not have any boarding information to provide,
33 since I just got here to the unit around two months ago, but I
34 do have an update on the assets and what we can offer to better
35 enforce rules and regulations of the federal waters.

36
37 I would like to start by saying that our biggest asset is
38 officer presence. We are not here to -- Our main goal is not to
39 board everybody thinking they have drugs or they're doing
40 something illegal. We're here for safety at life at sea.
41 That's our main goal. With that said, we are a multi-mission
42 agency, and if we are working on fisheries boarding and we have
43 other intel regarding either safety of life at sea due to, for
44 example, immigrants or let's a say a boat on fire, we have to
45 tend to that and so, in that sense, that's why our numbers from
46 the LMRE, or living marine resources, boardings are at such a
47 low.

48

1 We are currently working or have gotten in contact with Ricardo
2 to better expedite the process, and I think a good asset that we
3 can provide for all the different agencies over here is our 4100
4 boardings. When we do board vessel, we're going to give you a
5 form, and that form is called a 4100. If we board a fishing
6 vessel is called a 4100F. That "F" stands for fishing or fish,
7 of course, and what we do is we tally and capture all violations
8 on that form.

9
10 In that sense, if you are further looking to prosecute somebody,
11 we can provide you a copy of that form. As well, we track it in
12 our program, and it's mostly used for law enforcement purposes.
13 What we do is if we have convicted or we have the same person
14 committing the same crimes, we have that database, and so, for
15 the fellow enforcement agencies, if you have John Doe from any
16 adjacent area and you're wondering if we've caught him before or
17 what laws he has broken before, you can shoot us an email and
18 ask, hey, do you have -- I am working on this, and do you have
19 further information, amplifying information, and then we can
20 just pull up that record, and it will definitely be beneficial
21 for any agency looking to prosecute or further clarify any
22 violations of law.

23
24 As well, we have three personnel working in the office, and our
25 office is shared with the intelligence department, and so it
26 will be very hard for me not to know or not to have my eye on
27 the bigger picture of what's going on around Puerto Rico, and so
28 we're here to help you, and we are looking to further work
29 closer with DNER in handling these cases.

30
31 **CARLOS FARCHETTE:** Thank you. We have a question from Director
32 Gomez.

33
34 **RUTH GOMEZ:** It's not really a question. About a month ago, my
35 phone rang at like 2:11 in the morning, and it was the United
36 States Coast Guard asking me a series of questions about two
37 fishermen that had gone missing. I don't know if it was your
38 office or not, but I wanted to publicly thank the Coast Guard
39 for not waking me up, but doing everything that they possibly
40 could have done to locate those two fishermen, because the two
41 fishermen that went missing were two of our older fishermen,
42 well respected and well loved, and, when I asked the gentleman
43 on the other end of the line to please call me back when they
44 found them, because I was fairly confident that they were good,
45 they did call me back, at 5:26 in the morning, and so thank you,
46 Coast Guard, for taking care of my commercial fishers in the
47 Virgin Islands.

48

1 **EFRAIN ROSA:** You are very welcome, and, like I mentioned,
2 safety of life at sea is our priority, and we do work very well
3 under order, and so, if you tell us to call you when we find
4 them, we're going to call you when we find them. If it happens
5 to be at 5:26 in the morning, I apologize for that in advance.

6
7 Like I said, 99 percent of the fishermen that we board, they are
8 legit and they have all the requirements, and so safety of life
9 at sea is mostly what we do. What we can provide for you guys
10 is if you have a protected area, it doesn't hurt us at all if
11 you want us to, instead of doing the west side of the Mona
12 Passage, to go east, where the protected areas are. That way,
13 hey, we're not going to board you, but they don't know that.
14 It's kind of hard to not see a white boat, a 154-foot vessel
15 with an orange stripe on it, and so we are definitely there.
16 They know we're there, and so hopefully we're a presence, an
17 enforcement presence, and they will get deterred from whatever
18 illegal activities they were doing.

19
20 That is one of the things we could do, and it doesn't hurt us at
21 all. They are transiting back home, and we usually have a
22 cutter in the Mona Passage, as we all know, and so it doesn't
23 hurt us at all when we're swapping boats or any other evolution
24 to just happen there, as well as we have multiple aircraft
25 there, and it doesn't hurt us at all, when we're flying back
26 home, to just fly east or fly west. Just shoot us an email and
27 let us know, as well as St. Croix and St. Thomas.

28
29 We've got the SPC-LE, thirty-three-foot vessels. Those vessels
30 are great. They're the ones that I have worked with the most,
31 and they can go 250 nautical miles out. That's out of fuel
32 though, just so you get an idea of how far we can go, but we
33 usually go fifty nautical miles from land, but, if we're island
34 hopping, we can pretty much go anywhere, as well as they do a
35 pretty good speed.

36
37 If it's safety of life at sea and you need us to get somewhere,
38 or you have some very good intel on somebody around your
39 protected areas, it's very hard that -- They can't outrun us,
40 and so that would be another asset or another service that we
41 can provide you guys.

42
43 **CARLOS FARCHETTE:** A follow-up and then Graciela.

44
45 **RUTH GOMEZ:** If we have a possible violation in the EEZ, exactly
46 who do we call?

47
48 **EFRAIN ROSA:** You call Sector San Juan Enforcement Division, and

1 I can provide you with a phone number. That way, you can either
2 contact Josh McElhaney, which is the personnel who called you at
3 5:26 in the morning, Lieutenant McElhaney, which is my immediate
4 supervisor, myself, or the command center. The command center
5 will be your best option, because they are manned 24/7, even
6 Christmas or it doesn't matter. It's 24/7 that there's
7 personnel in there, and they have all the assets. They know
8 where everything is at, and they are usually the ones that they
9 call me in the middle of the night and wake me up and so that
10 would be command center would be your first option.

11
12 **CARLOS FARCHETTE:** Then it's your turn to wake him up at three
13 o'clock in the morning.

14
15 **MIGUEL ROLON:** At the council webpage, we have the hotline, and
16 we have all the numbers for the Coast Guard, 24/7, and we have
17 the OLE for the Southeast Region, and so you can look at our
18 page and the information is there.

19
20 **CARLOS FARCHETTE:** Graciela.

21
22 **GRACIELA GARCIA-MOLINER:** We usually try to give you special
23 dates for surveying the seasonally-closed areas that would
24 correspond to the peak in spawning, to make sure that at least
25 that very short period of time every month is protected, and so
26 we will continue to get the information and pass it along,
27 because I think that that's extremely important.

28
29 **EFRAIN ROSA:** Absolutely, and getting a cutter to move east or
30 west of the Mona Passage is as easy as an email away. Sometimes
31 we just -- Unless we have very good intel going on the west side
32 of the Mona Passage or there is no -- It really doesn't bother
33 us at all just transiting through that area, especially if we're
34 helping with a protected area, which also we enforce, and so
35 that would be something that we can definitely do.

36
37 **CARLOS FARCHETTE:** Thank you, and, once again, welcome aboard to
38 the council process.

39
40 **EFRAIN ROSA:** Thank you very much.

41
42 **CARLOS FARCHETTE:** Now I have National Marine Fisheries Service
43 and Lynn.

44
45 **NMFS/NOAA**

46
47 **LYNN RIOS:** I don't have a report.

48

1 **CARLOS FARCHETTE:** Okay. Thank you. Tony Iarocci and Lobster.
2

3 **SPINY LOBSTER UPDATE**
4

5 **TONY IAROCCI:** Thank you, Mr. Chairman. This will be short and
6 sweet. I just want to give a quick spiny lobster update. They
7 did have a conference recently. From Florida to Central
8 America, the lobster landings are up, and recruitment is up.
9 Everybody was very positive about what's going on. I did talk
10 about what is happening with the ACLs in the states.
11

12 We are working very closely, closer to home. The fishermen are
13 working close with DNER and the Science Center and the council
14 to try to work toward getting better data. Right now, we're in
15 a comparison mode of looking at the data collection sheet that
16 we're using to compare with the DNER data sheet and have the
17 Science Center and everybody on the same page, so what our goals
18 and priorities are are the same. We ask the question and we get
19 everything done right.
20

21 Now, the fishermen are very excited about this, but, before we
22 move forward, we want to make sure that we do this right. Also,
23 Yuying Zhang that we have worked with, and she is applying for
24 an S-K funded program to help gather data, starting with the
25 collectors that Ricardo had showed earlier, to go through
26 working with the fishermen. She is working closely with Ricardo
27 Miranda and with Bill Kelly from the Florida Keys, and so we're
28 all on the same page looking at this together.
29

30 We want to make sure -- Remember that it does take time to do
31 this right. We want to make sure when this datasheet is done
32 that it's something that Richard Appeldoorn is comfortable with
33 and the Science Center is comfortable with and Ricardo is
34 comfortable with and the council and everybody is in agreement
35 and we're answering the questions of why we're doing this and we
36 get the proper data and it's simplified enough where the
37 fishermen are in agreement that we do this right.
38

39 Now, Carlos, would you like to add anything to that or Bonnie or
40 Ricardo? Thank you for the time, and thanks for the support for
41 the fishermen. Before I close, I want to thank the fishermen
42 here in San Juan for Monday and opening up the cooperative and
43 not only serving a great dinner, but giving a tour to Roy and
44 staff and Sam Rauch, where they were able to see the boats and
45 see the traps and make the comparison to a small-boat lobster
46 fishery compared to what -- I teased Sam about -- I told him, I
47 said, just picture Gloucester and picture the lobster boats and
48 picture what you're seeing up there and then look at -- We're

1 using the same Magnuson-Stevens data and look at managing the
2 fisheries here and closing down the lobster fishery and looking
3 at what we're doing.

4
5 **CARLOS VELAZQUEZ:** Thank you, Tony, for the support for us for
6 this project, and Helena, too. The fishermen are excited for
7 this project. I talked this morning with Bonnie about
8 establishing better data for this project. Thank you, Tony and
9 Helena and the other people. It's very exciting, and I can't
10 wait for this project and to present it for better data and
11 working together for the resources of the spiny lobster. Thank
12 you.

13
14 **MIGUEL ROLON:** Tony, what is the timeframe that you are thinking
15 about with this project?

16
17 **TONY IAROCCHI:** Miguel, right now, what we're going to do is work
18 on the datasheet locally and get that done. Now, Yuying, within
19 I think September something, there has to be the short-term for
20 the S-K funding to do the big project, but, to what Carlos -- To
21 what I call the Velazquez project, what we're looking at is,
22 once we get the datasheet and we get confirmation from everybody
23 that we know what we're doing and what kind of data -- Bonnie
24 touched on quite a few things, and I have a list, but I won't go
25 through it now. It's late.

26
27 But it's what we need to prioritize on, and once we get the go-
28 ahead and Ricardo is comfortable and Bonnie is, we can start
29 with a pilot data subset. Once we get that going and that
30 something that everybody agrees on, and I think that can be done
31 relatively, pretty quick, if we can get that done, as long as --
32 Bonnie did say she has somebody maybe at the Science Center that
33 can help coordinate some of this stuff.

34
35 **CARLOS FARCHETTE:** Blanchard.

36
37 **TONY BLANCHARD:** I think we need to push this pilot project,
38 number one, and, number two, by the sound of it, we just might
39 get these ACLs raised, which I think all of us would be in
40 agreement that we would be happy for, and so I say we need to
41 support it and push it.

42
43 **CARLOS FARCHETTE:** Thank you. Jack.

44
45 **JACK MCGOVERN:** I just wanted to reiterate what Tony said and
46 thank the fishermen for the lunch they provided us on Monday and
47 taking us on the tour of the fish house. Sam really enjoyed it,
48 and it was really informative for all of us, and I just wanted

1 to thank them.

2
3 **CARLOS FARCHETTE:** Great. They didn't invite me. We have Iris
4 on queen conch.

5

6 **QUEEN CONCH UPDATE**

7

8 **IRIS LOWERY:** This will be really brief. Roy just wanted me to
9 advise the council that a lawsuit has been filed against NMFS
10 regarding the not warranted finding on queen conch under the
11 Endangered Species Act, and so, as you will likely remember, in
12 November of 2014, NMFS issued a finding under the Endangered
13 Species Act that queen conch did not warrant listing, and so
14 Friends of Animals and Wild Earth Guardians filed suit just
15 recently in the D.C. circuit.

16

17 **CARLOS FARCHETTE:** Does that require that biological opinion
18 stuff all over again?

19

20 **IRIS LOWERY:** They're challenging the basis of the finding as
21 arbitrary and capricious, and so what would end up happening is,
22 if we lose the suit, then there are a few different ways that it
23 could go, but, in all likelihood, it would be remanded to the
24 agency for additional consideration.

25

26 **MIGUEL ROLON:** Who is suing us?

27

28 **IRIS LOWERY:** It is Friends of Animals and Wild Earth Guardians.

29

30 **CARLOS FARCHETTE:** Okay. Thank you. I have Bonnie with S-K
31 proposals. One second, Bonnie. Tony.

32

33 **TONY IAROCCI:** I'm sorry. Iris, what's the timing on that for
34 the final decision? How long will it take, or is there a time
35 limit on this, or it's never-ending?

36

37 **IRIS LOWERY:** It's difficult to tell, because it's all based on
38 how fast the court moves. The suit, I believe, was filed at the
39 end of July, and so it's really just in the initial stages. The
40 plaintiffs are Friends of Animals and Wild Earth Guardians.

41

42 **CARLOS FARCHETTE:** Bonnie.

43

44 **DISCUSSION OF S-K FUNDING**

45

46 **BONNIE PONWITH:** Thank you, Mr. Chairman. Just briefly, I want
47 to reiterate the fact that the Saltonstall-Kennedy call for
48 proposals is open. On the 22nd of July, NOAA Fisheries announced

1 that approximately \$10 million will be available to support
2 fisheries projects through the 2017 S-K grant competition. The
3 solicitation closes on the 9th of December, but there is a new
4 step in the process, which is a pre-proposal step.

5
6 Those pre-proposals are due on the 20th of September, which is
7 just right around the corner, and I want to bring this to your
8 attention, because there is a special category of projects for
9 territorial science in there, which creates some unique
10 opportunities for special science that really is going to help
11 this council in their management approaches, and so, if you have
12 questions, you can call me, or, if you just go to the NOAA
13 Fisheries website under S-K, you can learn more and see what the
14 steps are for submitting those proposals. Thank you, Mr.
15 Chairman.

16
17 **CARLOS FARCHETTE:** Thank you, Dr. Ponwith. Ricardo.

18
19 **RICARDO LOPEZ:** I would like to clarify some questions that were
20 made when I was doing the presentation. The first question was
21 if the panels are air conditioner panels, and, yes they are air
22 conditioner panels. Also, you asked if they were clean, and
23 they are visited for sampling once a month. Every time that
24 they are visited, they are replaced by a clean one. The other
25 question was if the organisms were in the amount of thousands or
26 hundreds, and that is coming now. It could be hundreds,
27 counting the organisms, and also larvae and juveniles of
28 invertebrates and fishes that are associated. Those collectors
29 will act as attractants of fishes and the quantity of organisms
30 that are kept inside. That's the answer, and so it's in terms
31 of hundreds. I don't think it's in terms of thousands.

32
33 **CARLOS FARCHETTE:** Great. Hundreds is good. Okay. Well, two
34 long days. I want to thank everybody, and the next meeting will
35 be December 13 and 14 in St. Thomas at the Frenchmen's Reef. I
36 want to thank everyone for the participation, and this meeting
37 is adjourned. Thank you for bearing with us.

38
39 (Whereupon, the meeting adjourned on August 24, 2016.)

40
41 - - -